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**Learning   Service and Involvement   Creativity and Innovation**



**COLLIN  
COLLEGE**

[www.ccccd.edu](http://www.ccccd.edu)

**CATALOG  
2008-09**

**Academic Excellence   Dignity and Respect   Integrity**



Published by

**Collin County Community College District**

**Courtyard Center  
4800 Preston Park Boulevard  
P.O. Box 869055  
Plano, Texas 75086-9055**

2008 - 2009 • No. 23

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# 2008-2009

# catalog



Collin College 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, Collin College provides accommodations as required by law to afford equal educational opportunities to all people. Kim Russell, the ADA/Title IX/504 Corrdinator, is located at CYC;B433; 972.985.3781.

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

## **Accreditation Status**

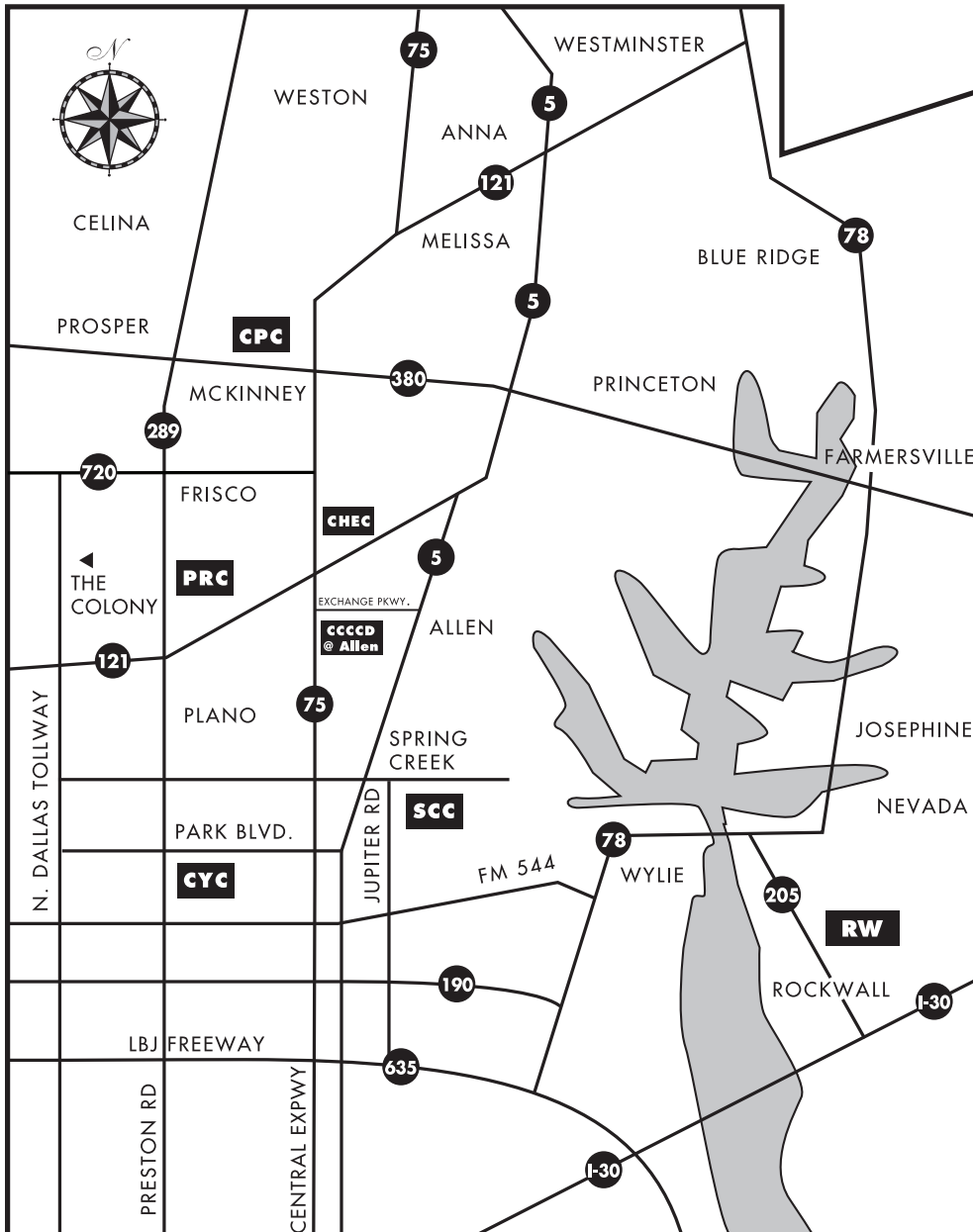
Collin College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees and certificates. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Collin College.

## **Accrediting Bodies**

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

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

## Collin County Community College District Map



### CAMPUS LOCATIONS

**Central Park Campus (CPC)**  
2200 West University Drive  
P.O. Box 8001  
McKinney, Texas 75070-8001  
972.548.6790

**Collin Higher Education Center**  
*New: Opening Spring 2010*  
3452 Spur 399  
McKinney, Texas 75069

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

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

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

### OTHER LOCATIONS

**CCCCD@ALLEN**  
Allen High School  
300 Rivercrest Boulevard  
Allen, Texas 75002  
972.377.1060

**Higher Education Center at Rockwall (RW)**  
1050 Williams Street  
Rockwall, Texas 75087  
972.772.5737

### COLLIN INTERNET ADDRESS:

[www.ccccd.edu](http://www.ccccd.edu)

## Collin 2008-2009 Academic Calendar

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### FALL 2008

August 15	All College Day @ SCC-Conference Center (All Campuses Closed)
August 25	Fall Classes Begin
September 1	Labor Day Holiday (Campuses Closed)
September 8	Fall Census Date
September 19	Plano Balloon Festival-Spring Creek Campus Closes@3:00 pm
September 20-21	Plano Balloon Festival-Spring Creek Campus Closed
November 14	Fall Last Day to Withdraw
November 26-30	Thanksgiving Holiday (Campuses Closed)
December 8-14	Fall Final Exam Week
December 24-January 4	Winter Break (Campuses Closed)

### WINTERMESTER 2009

December 15-19, 2008	Wintermester Classes Meet
December 16	Wintermester Census Date
December 22	Wintermester Classes Meet
December 22	Wintermester Last Day to Withdraw
December 24-January 4	Winter Break (Campuses Closed)
January 5	Wintermester Classes Resume
January 9	Wintermester Final Exams

### SPRING 2009

January 8	All College Day @ SCC-Conference Center (All Campuses Close @ 11:00 am)
January 19	MLK Holiday (Campuses Closed except for community activities at SCC)
January 20	Spring Classes Begin
February 2	Spring Census Date
March 16-20	Spring Break (No Classes)
March 21-22	Spring Break (Campuses Closed)
April 10-12	Spring Holiday (Campuses Closed)
April 17	Spring Last Day to Withdraw
May 11-17	Spring Final Exam Week
May 14	Collin College 2008-2009 Commencement @ 7:00 p.m

### MAYMESTER 2009

May 18	Maymester Classes Begin
May 19	Maymester Census Date
May 25	Memorial Day Holiday (Campuses Closed)
May 27	Maymester Last Day to Withdraw
June 2	Maymester Final Exams

### SUMMER 2009

June 8	Summer I and III Classes Begin
June 11	Summer I Census Date
June 17	Summer III Census Date
July 2	Summer I Last Day to Withdraw
July 3-5	Independence Day Holiday (Campuses Closed)
July 9	Summer I Final Exams
July 13	Summer II Classes Begin
July 16	Summer II Census Date
July 24	Summer III Last Day to Withdraw
August 7	Summer II Last Day to Withdraw
August 12-13	Summer III Final Exams
August 13	Summer II Final Exams

## Quick Reference

STUDENT SERVICES	CPC	CYC	PRC	SCC
Academic Probation or Suspension	972.548.6778 A108		972.377.1779 F109	972.881.5773 G103
Academic Advising	972.548.6782 A108		972.377.1779 F109	972.881.5782 G103
ACCESS Office			972.377.1785 F118	972.881.5898 G200
Admissions and Records Office	972.548.6710 A111	972.985.3721 B101	972.377.1710 F109	972.881.5710 G103
Bookstore	972.548.6680 A104	972.985.3710 B107	972.377.1680 F159	972.881.5680 F161
Career Services & Cooperative Work Experience	972.548.6747 A108		972.377.1781 F109	972.881.5781 G103
Center for Scholarly and Civic Engagement				972.881.5900 F105
Child Development Lab School	972.548.6852 E102/104			972.881.5945 B175
Computer Lab	972.548.6877 C113		972.377.1706 H125	972.881.5877 J119
Counseling Services	972.548.6615 A221		972.377.1785 F117 972.377.1671 F116	972.881.5126 C225
Dean of Students	972.548.6771 B308		972.377.1793 F109	972.881.5604 G227
Financial Aid/Veterans Affairs	972.548.6760 A111		972.377.1760 F109	972.881.5760 G105
Fitness Center	972.548.6891 E121		972.377.1758 Alumni Hall	972.881.5848 A100
Food Service	First Floor	A212	Alumni Hall	972.881.5949 F108
Honors Institute				972.516.5003 F103
Information Center	972.548.6790 First Floor Atrium	972.985.3790 B101	972.377.1790 Founders Atrium	972.881.5790 First Floor Atrium
International Students Office				972.516.5012 G106
Library	972.548.6860 B105		972.377.1560 L150	972.881.5860 D100
Math Lab	972.548.6896 C220		972.377.1639 L212	972.881.5921 J228
Recruitment and Programs for New Students			972.377.1750 F123	972.516.5086 G126
Service Learning Office				972.881.5900 F105
Student Development Center	972.548.6770 A108		972.377.1595 F109	972.881.5770 G103
Student Life	972.548.6788 D109		972.377.1788 A185	972.881.5788 F129

STUDENT SERVICES-continued	CPC	CYC	PRC	SCC
Student Lounge	972.548.6788 First Floor D		972.377.1788 Alumni Hall	
Tech Prep - Global EDGE	972.548.6723 A114			
Testing Center	972.548.6849 B342		972.377.1523 F209	972.881.5922 J232
Transfer Programs Office		972.985.3734 A312		
Tutoring (ACCESS Office)				972.881.5128 G141
Wellness Center				972.881.5777 A217
Writing Center	972.548.6857 B108		972.377.1576 L214	972.881.5843 D224

NOTE: Select Student Services are available at CCCCD@ALLEN

ADMINISTRATIVE DEPARTMENTS	CPC	CYC	PRC	SCC
ADA/Title IX/504 Coordinator		972.985.3781 B303		
Associate Faculty Office	972.548.6830 B305		972.377.1585, 1705, 1554, or 1506 F243, H119, L226, or U111	972.516.5090 or 972.881.5759 B103 or K239
Cashier's Office (Bursar)	972.548.6616 A111E	972.985.3724 B101	972.377.1638 F140	972.881.5634 G115
The Collin College Foundation (Scholarships)		972.599.3145 A100		
Continuing Education and Workforce Development		972.985.3750 A364		
Dean of Students Office	972.548.6771 A108		972.377.1793 F109	972.881.5604 G227
Instruction Office	972.548.6830 B305			
Plant Operations	972.548.6690 E126	972.985.3777 Basement	972.377.1690 Plant Building	972.881.5690 K016
President's Office		972.758.3800 B431		
Public Relations		972.758.3895 B329		
TSI Information	972.548.6710 A111	972.985.3722 B101	972.377.1744 F109	972.881.5902 G103
Vice President/Provost's Office	972.548.6800 A302		972.377.1550 D106	972.881.5802 G227
Vice President of Administration		972.758.3831 A420		
Vice President of Student Development	972.548.6770 A108		972.377.1770 F109	972.881.5770 G227
Weekend College				972.881.5801 G231

OTHER COLLEGE LOCATIONS				
CCCCD@ALLEN	972.377.1060 Q100			
Higher Education Center at Rockwall	972.772.5737			



## Quick Reference for Collin Academic and Workforce/Technical Degree Programs

Academic Associate Degree Programs	Associate of Arts (AA)	Associate of Arts in Teaching* (AAT)	Associate of Science (AS)	Field of Study
Accounting	•			
American Sign language (Deaf education)	•			
Anthropology	•			
Art	•			
Business	•			•
Communication Studies	•			•
Criminal Justice	•			•
Dance	•			
Economics	•			
English	•			
French	•			
Geography	•			
German	•			
Government	•			
History	•			
Mexican-American Studies	•			•
Music	•			•
Nursing	•			•
Paralegal/Legal Assistant	•			
Philosophy	•			
Photography	•			
Psychology	•			
Sociology	•			
Spanish	•			
Theatre	•			
Early Childhood (EC)-grade 4, grades 4-8, EC-grade 12		•		
Grades 8-12, Other EC-12		•		
EC-4 Early Childhood Degree Specialization		•		
Biology			•	
Chemistry			•	
Computer Science			•	•
Engineering			•	•
Engineering Technology			•	•
Environmental Science			•	
Geology			•	
Mathematics			•	
Physical Education			•	
Physics			•	
Technical Communication and Knowledge Management			•	

\*(Leading to Initial Texas Teacher Certification)

<b>Workforce and Technical Degree Programs</b>	<b>Associate of Applied Science (AAS)</b>	<b>AAS Specialization</b>	<b>Certificate</b>	<b>Certificate Specialization</b>	<b>Enhanced Skills Certificate</b>	<b>Marketable Skills Achievement Award</b>
<b>Animation</b>						
3-D Animation						•
3-D Animation/Game Art and Animation	•		•			
Web-Interactive Media						•
Web-Interactive Media/Digital Video		•	•			
<b>Applied Graphic Design Technology</b>	•		•			•
Commercial Photography		•	•			
<b>Biotechnology</b>	•		•			
<b>Business Management</b>	•		•			
Criminal Justice		•		•		
Human Resources Management				•		
<b>Child Development</b>	•		•			
Child Development Administration of Programs for Children						•
Child Development Associate			•			
Child Development Associate Training						•
Early Childhood Administrator				•		
Early Childhood Special Educator				•		
Infant and Toddler Educator				•		
School-Age Educator				•		
Teacher Assistant				•		
<b>Computer-Aided Drafting and Design</b>	•		•		•	
AutoCAD				•		•
Integrated Circuit Design and Layout		•	•			•
<b>Computer Information Systems</b>	•					
Applications Programming			•			
Computer Applications		•	•			•
Database Applications						•
<b>Computer Networking Technology</b>	•					
Advanced Cisco Systems Networking (CCNP)			•			
Cisco Systems Networking		•				
Cisco Systems Networking (CCNA)						•
Computer Networking Technology Advanced Software (MCSE)				•		
Computer Networking Technology Software (MCSA)			•			
<b>Computer Programming</b>						
C# - Database Programming				•		
C# - Software Development				•		
Database Programming			•			•
Java		•		•		
Software Development	•		•			
Visual Basic .NET		•		•		•
<b>Convergence Technology</b>	•		•			
Home Technology Integration (HTI) Expert						•
IP Specialization				•		
Voice-over-IP Expert					•	
<b>Culinary Arts</b>	•		•			
<b>Dental Hygienist</b>	•					

<b>Workforce and Technical Degree Programs</b>	<b>Associate of Applied Science (AAS)</b>	<b>AAS Specialization</b>	<b>Certificate</b>	<b>Certificate Specialization</b>	<b>Enhanced Skills Certificate</b>	<b>Marketable Skills Achievement Award</b>
<b>E-Business Media</b>	•		•			
E-Commerce			•			
Interactive Web Programming						•
Studio						•
Web Commerce						•
Web Developer		•		•		
<b>Electronic Design</b>	•					
Electronic Design Automation			•			
Electronic Engineering Technology	•		•			
Biomedical Instrumentation Electronic		•		•		
Electro-Optical		•		•		
<b>Emergency Medical Services Professions</b>	•					•
EMS Paramedic			•			
<b>Fire Science</b>						
Basic Firefighter Certification	•		•			
Fire Officer Certification		•	•			
Fire Officer Candidate						•
<b>Health Information Technology</b>	•					
Medical Coding and Billing			•			
Medical Transcription			•			
<b>Hospitality and Food Service Management</b>						
Catering Management				•		
Culinary Arts		•		•		
Dietary Manager				•		
Hotel Management				•		
Hotel/Restaurant Management	•		•			
Meetings and Event Management				•		
Pastry Arts				•		
<b>Information Systems Cybersecurity</b>	•		•			
<b>Interior and Architectural Design</b>	•		•			•
<b>Interpreter Preparation Program/Deaf</b>	•					
Interpreter Trainee			•			
<b>Marketing</b>	•		•			
International Business		•		•		
Marketing/Business Management		•				
Sports Management						•
<b>Music, Commercial</b>	•					
Audio Engineering			•			
<b>Nursing</b>	•					
<b>Office Systems Technology</b>	•		•			•
Legal Office Support				•		
Medical Office Support				•		
<b>Paralegal/Legal Assistant</b>	•					
Paralegal General			•			
<b>Real Estate</b>	•					
Real Estate Brokers			•			
Real Estate General			•			
<b>Respiratory Care</b>	•					
<b>Semiconductor Manufacturing Technology</b>	•					
Semiconductor Manufacturing Operator			•			
<b>Surgical Technology</b>	•					

A close-up, black and white photograph of a lion's face, focusing on its eyes and nose. The lion's gaze is directed towards the viewer, and its fur texture is visible.

# COLLIN COLLEGE:

## *A SMART MOVE*

Since offering its first classes at area high schools in 1985, Collin College has expanded to serve about 44,000 credit and continuing education students each year. The only public college in the county, the college offers more than 100 degrees and certificates in a wide range of disciplines.

### **A PROVEN LEADER IN EDUCATION**

Collin College was the first Texas community college to offer the pre-admission program, allowing students to earn credit at Collin College and a major university simultaneously. Pre-admission allows students to complete their first two years of their bachelor's degrees at Collin College, apply for pre-admission to any of the nine partner universities and be guaranteed admission to the partner university when admission requirements are met.

Partner universities include Austin College, Baylor University, Southern Methodist University (SMU), Texas A&M University, Texas A&M University–Commerce, Texas Tech University, Texas Woman's University (TWU), The University of Texas at Dallas (UTD) and the University of North Texas (UNT).

In response to the critical need for classroom teachers, Collin College became the first community college in the nation to offer alternative teacher certification. The college's Alternative Teacher Certification Program was one of only 10 in the nation to receive a "Teaching By Choice Award" from the American Association of Community Colleges. In 2005, Collin College launched the associate of arts in teaching to further assist with the teaching shortage. Additionally, the Child Development program at Collin College received an "Exemplary Program" award from the Texas Higher Education Coordinating Board.

In addition to the core curriculum, Collin College offers extensive training in the health professions and public service fields, including nursing, respiratory therapy, dental hygiene, emergency medical services, health information technology, surgical technology, fire science, and law enforcement. Certificates can be earned in a wide range of high-tech fields, as well. Augmenting the computer networking technology program, Collin College is one of six Cisco Certified Network Professional (CCNP) Instructor training centers in the U.S.

### **THE BEST FACULTY IN THE U.S. AND TEXAS**

In 2007, a second Collin College professor was named U.S. Professor of the Year, a highly-coveted award presented by the Council for Advancement and Support of Education (CASE) and the Carnegie Foundation for the Advancement of Teaching. The U.S. Professor of the Year award is considered the pinnacle of collegiate teaching. Collin College is the only college or university in Texas to have two national honorees. In addition, a Collin College professor took the honor of top college or university professor in Texas and was named Texas Professor of the Year in 2006.

The college faculty also include four Minnie Stevens Piper Professors, one of Texas' highest honors bestowed upon college and university professors and an honoree of the Teaching Excellence Award, presented by the Texas Mathematical Association of Two Year Colleges. Moreover, the faculty are comprised of countless authors, patent holders, noted scholars and experts who have been honored for their research.

### **A WORLD OF KNOWLEDGE AND SCHOLARS**

Collin College students are locally and nationally recognized scholars. The Collin College chapter of Psi Beta, a national honor society in psychology, earned second place in the Outstanding Chapter category at the American Psychological Association national convention, and the Collin College chapter of Phi Theta Kappa, an international honor society for two-year college students, is now a "Five-Star Chapter."

Recently, the college's Model United Nations won four awards at the American Model United Nations Conference. Also, Collin College's Young Adult Council of the League of United Latin American Citizens (LULAC) was named the National Council of the Year at the annual national convention in 2007. This is the second year in a row that the Collin College LULAC council has won this honor and the third since 2003.

Among Collin College's nationally recognized programs are Learning Communities and Service-Learning, which earned the National Bellwether Award for outstanding and innovative

practices presented by the National Council of Instructions Administrators and the Institute of Higher Education. The Dance Repertory has consistently won Gala Awards and is the only community college program in the nation to win three times in four years. And the college's theatre program is consistently ranked among the top programs in the nation at the American College Theatre Festival.

Moreover, the college offers students a comprehensive college experience through a wide variety of theatre, music and dance performances, art exhibits, athletic events, and several guest lecture series' which bring renowned scholars nationally known personalities to Collin College campuses, including Nobel Laureate Dr. Norman Borlaug, goodwill ambassador Harriet Mayor Fulbright, U.S. Secretary of Defense Dr. Robert Gates and critically acclaimed American author, poet and naturalist Diane Ackerman.

## **IN YOUR NEIGHBORHOOD**

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Collin College offers credit and continuing education courses on campus, at area businesses, or via the Internet. In addition to providing core curriculum courses, each location offers a wide selection of electives and specialty classes.

### **Central Park Campus 2200 W. University Drive in McKinney**

Collin College opened its first campus, the Central Park Campus (CPC), in McKinney in January 1986. Located on just west of U.S. Highway 75 on Highway 380, the campus includes a facility that offers transferable, general education classes as well as allied health programs. Housed at Central Park are the James and Pat Aston Center for Health Studies, a dental clinic, a fire academy building, a fire rescue complex, a hospital lab and a law enforcement academy.

Additionally, community members and medical personnel who desire access to a wide variety of credible health-related materials can visit the campus' Consumer Health Information Center. The center provides a number of resources, including Internet databases and links, medical journals, videos, brochures and books.

In August 2007, Collin College officials kicked off construction to expand the original campus. The expansion will include an approximately 73,000 square-foot Jeffersonian-style library and classroom space, an approximately 20,000 square-foot student development and bookstore space, four new science labs, a surgical technology lab and a parking garage.

The expansion will also include classrooms and offices and will be home to the Learning and Enhanced Academic Performance (LEAP) Center, where students can receive assistance with algebra, biology, physics, chemistry, writing and more.

### **The Collin Higher Education Center**

*New: Opening Spring 2010*

#### **3452 Spur 399 in McKinney**

The college is developing a new site, the Collin Higher Education Center. The 5.5 acre-parcel is located in McKinney on the northeast corner of State Highway 121 and U.S. Highway 75. At this location, Collin College and university partners will offer junior- and senior-level college courses, as well as graduate degree programs. In addition to the Collin Higher Education Center, the new campus will house selected administrative departments now located at the Courtyard Center in southwest Plano.

The concept will encourage students to complete an associate degree at Collin College and complete university bachelor's or master's degrees without leaving Collin County.

The college expects to open the doors of the Collin Higher Education Center in spring 2010.

### **Spring Creek Campus 2800 E. Spring Creek Parkway in Plano**

The Spring Creek Campus (SCC) opened in fall 1988 and is located at the intersection of Jupiter Road and Spring Creek Parkway in Plano. The facility houses the Honors Institute, the Center for Scholarly and Civic Engagement, the 356-seat John Anthony Theatre, THE ARTS gallery, a state-of-the-art dance studio and the Brinker Tennis Stadium. Spring Creek's many core offerings include classes in fine arts, communications and humanities, business and computer science, mathematics and natural sciences and the social sciences.

### **Preston Ridge Campus 9700 Wade Blvd. in Frisco**

In July 1995, Collin College opened its third campus, the Preston Ridge Campus (PRC), located north of Highway 121 and east of State Highway 289 (Preston Road) in Frisco. Preston Ridge Campus centers on a grand library building integrated with art studios, music labs, a large lecture hall, science and technology classrooms and faculty offices. In addition, the college's culinary arts program will move to the Preston Ridge Campus in 2009.

PRC also houses the college's high-tech and business programs including electronic engineering technology, semiconductor and manufacturing technology, computer network technology, computer-aided drafting and design, and telecommunications technology. The campus is home to the first academic "Convergence Lab" in the state of Texas, which is the centerpiece of the Convergence Technology Center, a National Science Foundation (NSF) initiative. One of 33 NSF Centers, Collin College's Convergence Technology Center serves as a national clearinghouse for Convergence Technology educational materials and training.



### **Courtyard Center for Professional and Economic Development 4800 Preston Park Blvd. in Plano**

The Courtyard Center for Professional and Economic Development (CYC) opened in 1993. Located on Preston Park Boulevard in Plano near the intersection of Park and Preston, the CYC complex houses the Continuing Education and Workforce Development Division, the Collin Small Business Development Center, the college's Foundation and Development Office and the Business Solutions Group, which provides customized training to area businesses. Courses offered at CYC include career development, contract and corporate training, and Seniors Active in Learning (SAIL).

### **The Allen Campus Allen High School, 300 Rivercrest Blvd. in Allen**

Located within Allen High School, this site opened in the fall of 1999 and offers credit and continuing education classes. The facility currently houses Collin College's culinary arts program and the Teacher Certification Program. In 2009, the culinary arts program will move to the Preston Ridge Campus in Frisco.

### **Higher Education Center At Rockwall 1050 Williams St. in Rockwall**

Collin College offers courses to the community in Rockwall at the Rockwall Independent School District's Administration/Education Center, located at 1050 Williams Street. Community members may enroll in day or evening classes designed to transfer to universities.

## **MISSION STATEMENT**

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

## **CORE VALUES**

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We have a passion for:

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

## **PURPOSE STATEMENT**

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

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

## Collin Board of Trustees

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**STACY ANNE ARIAS**  
Plano

**PROFESSION:**  
Retail Management

**OTHER INVOLVEMENTS:**  
Founder of Civic Engagement to-go; Martin Luther King Jr. Power Breakfast Committee; board liaison for the Collin Center for Scholarly and Civic Engagement; Texas Council on Family Violence; Coalition of Victim Advocates; Plano/ Frisco YMCA; former board member of Court Appointed Special Advocates (CASA) of Collin County and Collin County Council on Family Violence; named one of the 21 Leaders for the 21st Century by *Inside Collin County Business*.

**QUOTE:**  
*"Having a successful district requires wise choices. Through connection, creativity and passion for higher education, these choices will propel this institution beyond our expectations. It is an honor to serve on the Collin College board."*



**CYNTHIA (CINDY) BAUGE**  
Plano

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

**OTHER INVOLVEMENTS:**  
Member of the Collin College Foundation Board and Executive Committee; Plano Chamber of Commerce (Athena Award Winner & Business Woman of the Year); Member of the Plano Tax Increment Financing Committee; Collin College Board Facilities and Construction Committee Chairman; named one of the 21 Leaders for the 21st Century by *Inside Collin County Business*.

**QUOTE:**  
*"As we continue to enhance the lifelong learning experience for our students, we continue to strengthen our partnerships with our communities, business and industry and other educational institutions. We strive to excel in all areas, constantly improving and making changes to meet the needs of the Collin County community."*

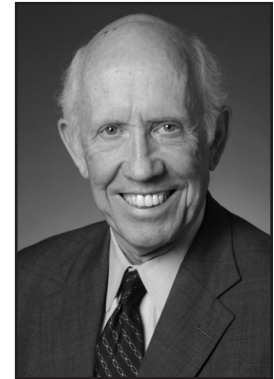


**DR. E.T. BOON**  
Allen

**PROFESSION:**  
Retired Dentist

**OTHER INVOLVEMENTS:**  
Past Board Member Allen Chamber of Commerce; Charter Member and Past President Allen Economic Development Corporation; Fellow, American Academy of General Dentistry; Master Academy of General Dentistry; Texas Industrial Development Council – Texas Volunteer Industrial Developer of the Year Award; namesake of E.T. Boon Elementary School in Allen; Charter Member and Past President Allen Rotary Club; Charter Member and Past President Allen Jaycees; Past V.P. Texas Jaycees.

**QUOTE:**  
*"My duty is to assist in providing the very best education possible for our students at affordable tuition. I also have a duty to make certain that our taxpayers' money is spent in a prudent manner."*



**DR. J. ROBERT COLLINS**  
Farmersville  
Founding Board Member

**PROFESSION:**  
Interim Head, Computer Science and Information Systems and Assistant Professor, College of Business and Technology, Texas A&M University-Commerce. Previous Corporate Vice President and Corporate Officer, E-Systems, Inc.

**OTHER INVOLVEMENTS:**  
Member of the Engineering Advisory Council for Texas A&M University-College Station; Member of the Farmersville EDC; Member of Advisory Council, College of Business and Technology, Texas A&M University-Commerce; Member of Greenville Christian School Foundation Board; named one of the 21 Leaders for the 21st Century by *Inside Collin County Business*.

**QUOTE:**  
*"One of our core objectives is Academic Excellence. We are achieving that while moving to make higher education convenient and accessible to everyone. The discipline of lifelong learning is essential today. We are providing those educational opportunities for students who might not want to leave the county, as well as for graduates in the work-force desiring to upgrade and improve skills. Collin College enhances the learning experience for our residents and serves as a catalyst for economic growth in the county."*



**BRENDA WILLARD GOODELL**  
Celina

**PROFESSION:**

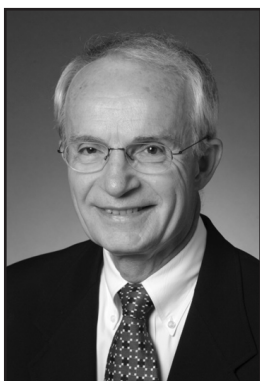
Realtor; Former Chief Financial Officer for a major agricultural company

**OTHER INVOLVEMENTS:**

Board Member of CARE, a local scholarship foundation; Vice Chairman of the Board of Directors of Celina Christian Academy; Chairman of the Building Committee, First Baptist Church of Celina; Charter member of Celina Rotary Club; Member of the Celina Chamber of Commerce; Former Member of the Southwest Credit Association Board of Directors; Former Secretary of the Celina ISD Board of Trustees; Former Member of the Appraisal Review Board for Collin County Central Appraisal District.

**QUOTE:**

*"It is a privilege to serve the citizens of Collin County on the Collin College Board of Trustees. I look forward to working with the administration, faculty and other board members to ensure that Collin College remains the best community college in the nation."*



**DR. DAVID HAMMEL**  
Parker

**PROFESSION:**

Retired, 31 years senior management with major U.S. corporations

**OTHER INVOLVEMENTS:**

Member of the Collin College Foundation Board, Collin County Youth Charity Advisory Board, Metroplex Mayors Association, Plano Rotary, Plano Public Library Foundation Board, Former Member U. S. Accreditation Board (universities), Governor's Task Force to Develop Texas Energy Policy, Collin County Planning Board, former Mayor and former City Council Member for the city of Parker.

**QUOTE:**

*"Collin is one of the premier community college districts in the United States. It must continue to provide a high quality, affordable educational experience to all who seek higher education."*



**MAC HENDRICKS**  
McKinney

**PROFESSION:**

Real Estate Developer

**OTHER INVOLVEMENTS:**

Former three-term member of the McKinney Economic Development Corp. Board; Member of the Collin College Foundation Board; Member of Collin College Campus Facilities and Construction Committee; Board Member, Hope's Door; Board Member, Juliette Fowler Homes, Inc.

**QUOTE:**

*"As college tuition continues to rise throughout our state and nation, we have maintained a level tuition for the residents of our county. It is my goal to continue to keep the cost of an education at Collin College affordable for all of our citizens. For some of our citizens, obtaining a college education has been only a dream. By holding the line on cost and making our facilities accessible, we can make their dreams come true."*



**SAM ROACH**  
Frisco

**PROFESSION:**

Owner – Sam Roach Business Center and Sam Roach Real Estate

**OTHER INVOLVEMENTS:**

Member of the Collin College Foundation Board; Member of the North Texas History Center Advisory Committee; Member of the Heritage Association of Frisco; Member of the Frisco Chamber of Commerce; Namesake of Sam and Ann Roach Middle School.

**QUOTE:**

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



**TINO TRUJILLO**  
Plano  
Founding Board Member

**PROFESSION:**

Owner – Tino's Restaurant and Tino's Too Restaurant in Plano

**OTHER INVOLVEMENTS:**

Member of the Plano Rotary Club; Director of the Craig Gilbert Foundation; Director of the Hendricks Academy of Honor Foundation (both scholarship foundations); Member of the Texas Commission on a Representative Student Body.

**QUOTE:**

*"I am very grateful that I have been given the honor to be a trustee for the last 20 years of this great educational institution. We have grown to about 44,000 students in just more than 20 years; this can be credited to the strong support of our citizens the faculty, staff, and administration for their dedication and vision on behalf of the students and community."*



# ADMISSIONS AND REGISTRATION

## ADMISSIONS POLICIES

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Collin College operates under an “open door” policy. Students who are 18 years of age or older are eligible for admission. Other students may be admitted under special admissions requirements. Students without a high school diploma or GED can take the “Ability to Benefit test” to determine if financial aid can be awarded. Collin College offers the COMPASS Subtest and the COMPASS ESL as Department of Education approved tests. Minimum scores are required. Check with the Financial Aid office for more details. 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, Collin College does not discriminate on the basis of race, color, religion, sex, national origin, age, disability or veteran status in accordance with federal law.

## FIRST TIME FRESHMEN

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Requirements for students 18 years and older who have never attended a college/university are:

1. Submit a completed application to the Admissions and Records Office.
2. Provide an official high school transcript or GED.
3. Submit official TSI documentation.

## STUDENTS NEW TO COLLIN COLLEGE

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New students should submit the following to the Admissions and Records Office:

1. An application for admission. This application may be submitted prior to, or at the time of, registration.
2. An official transcript all colleges/universities attended. All new students must take TSI or be otherwise exempted 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.

Admission to the college does not guarantee admission to a particular program of study.

Programs and certificates in dental hygiene, firefighter certification, nursing and respiratory care have specific program admissions criteria and require approval to enroll. Refer to the programs in this catalog, and/or contact the academic department office for information on program requirements.

## CAMPUS WIDE IDENTIFICATION (CWID) AND E-MAIL

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Students at Collin College are issued a Campus Wide ID (CWID) nine digit number to be used instead of their Social Security number to access their records when they are admitted to the college.

Communication between students and faculty/staff is through the campus wide e-mail system CougarMail, which is accessed through the campus portal CougarWeb. For login information, visit the Admissions and Records Office.

## TUITION REBATES FOR CERTAIN UNDERGRADUATES

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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. (Hours attempted refers to the number of hours in which a student is enrolled at a university, including college-level and developmental coursework, transfer credits, course credits earned by examination, Tech Prep and courses dropped after the official census date.) 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.

## FINANCIAL AID

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See the Financial Aid section beginning on page 35 for complete details and contact information.



## **RETURNING STUDENTS**

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Former Collin College students who have not been enrolled at Collin during the preceding two regular (16-week) semesters will need to reapply for admission. An application for readmission and an official transcript from all colleges or universities attended since their last enrollment at Collin College and documentation of TSI status are required. For more information on residency, see page 19.

## **STUDENTS WITHOUT A DIPLOMA OR GED**

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

1. Complete Collin College assessments in reading, writing and mathematics (if necessary, based on TSI status and scores),
2. Provide documentation that he/she is no longer enrolled in a high school program,
3. Submit an official transcript from the last high school attended,
4. Submit TSI scores or provide SAT, ACT or TAKS scores showing exemptions or take the test (see TSI section for details),
5. Provide written parental/guardian permission for students under 18 years of age, and
6. Contact a special admissions coordinator/advisor.
7. Students admitted under this policy are not eligible for Title IV benefits.

Anyone over 18 years of age admitted without a GED or high school diploma will be strongly encouraged to complete the GED during the first semester of his/her enrollment at Collin College. For more information, see the section on GED classes.

## **GED CLASSES**

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Information about GED testing is available by contacting local high schools and libraries. In addition the Collin County Adult Literacy Council, through its website and help line, offers a referral service for north Texas ([www.ccalc.org](http://www.ccalc.org)).

## **TRANSFERRING TO COLLIN COLLEGE**

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Transfer students who are in good standing academically and otherwise at the last institution of higher education they attended are eligible for admission to Collin College. An official college transcript from all colleges/universities attended and TSI status documentation is required.

Students who transfer to Collin College 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 Collin College.

3. Official course descriptions from the catalog under which the student attended may be required for evaluation.
4. Credit for courses equivalent to those listed in the Collin Catalog will be accepted if the courses are required on the student's degree plan for graduation. Other credits may be accepted in lieu of elective courses depending on the student's program of study.
5. Only the highest grade and credits earned for a repeated course will be used in computing the grade point average and applied toward degree or program requirements.
6. Grades of "D" are accepted from other institutions; however, a cumulative GPA of 2.0 is required for graduation. Grades of "F" and "I" will not transfer.
7. Waivers for physical education requirements may be granted for medical reasons. A written statement from a physician and one additional hour of electives are required. Credit for PHED courses is awarded for military training upon receipt of a student's DD214 (Honorable Discharge).
8. While there is no limit on the number of hours that can be transferred into Collin College from other institutions, there is an 18 credit hour residency requirement to earn an associate degree from Collin College. Students obtaining certificates containing 18 hours or less must complete all coursework in residence at Collin College. Petitions to transfer credits into certificate programs containing 18 hours or less may be made to the academic dean through the degree plan coordinator.
9. Time limits and minimum grade requirements may be imposed for transfer work into select programs. Contact the academic chair or academic dean for details.
10. Collin College does not evaluate transcripts or award transfer credit earned at foreign institutions; however, students may be eligible for credit through examination at the college.

Collin College degree plan coordinators conduct official transcript evaluations. Students must be currently admitted to Collin College to request a degree plan.

## **HOME-SCHOOLED SPECIAL ADMISSIONS**

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Home-schooled students interested in applying to Collin College who are under the age of 18 must:

1. Complete an Application for Admission (online)
2. Submit Home School Permission Form with appropriate signatures
3. Provide Official Home School Transcript
4. Testing/TSI or Proof of Exemption (All test scores must be submitted to Collin College directly from the College Board or ACT.) Take required Collin College institutional assessments (if necessary, based on TSI status and scores and course selection)
5. Schedule an interview with special admissions coordinator/advisor
6. Complete Advising /Registration Form with Collin College advisor



## HIGH SCHOOL SPECIAL ADMISSIONS

High school students who have completed their sophomore year and are interested in concurrent admission to Collin College must:

- Complete an Application for Admission (online)
- Provide Official High School Transcript
- Testing/TSI or Proof of Exemption. Take required Collin College institutional assessments (if necessary, based on TSI status and scores and course selection)
- Submit signed Concurrent Permission Form with appropriate signatures. Complete Advising/Registration Form with a Collin College advisor

## TECH PREP

College Tech Prep, through the Global EDGE Tech Prep Consortium, enables students to take Collin College courses while in high school. Students who elected to take a college Tech Prep pathway in high school may be eligible to receive college credit for those courses upon enrollment in Collin College after high school graduation, if the criteria below are met. College Tech Prep is a multi-year planned sequence of study for technical fields that begins in high school and extends through one or two years at Collin College. Current Tech Prep programs at Collin College include: Child Development, Computer-Aided Drafting and Design, Computer Information Systems, Computer Networking Technology, Computer Programming, Convergence Technology, Criminal Justice, E-Business Media, Electronic Design, Electronic Engineering Technology, Hospitality and Food Service Management, Information Systems Cyber-security, Interior and Architectural Design, Marketing, Office Systems Technology, and Semi-Conductor Manufacturing Technology.

### Steps to receive college credit

The following steps are required in order to receive college credit:

- Complete the high school Tech Prep class with a grade of B or better,
- Receive an 80 or better on the end-of-course exam in high school (applies only to select programs),
- Enroll at Collin College, after high school graduation and complete six\* non-developmental education credits,

*\* Students who were concurrently enrolled at Collin College need to complete only three additional credits after high school graduation as a condition of eligibility.*

- Complete a Petition for Tech Prep Credit and return it, along with an official final high school transcript, to the Global EDGE Office at Central Park Campus within 24 months of high school graduation.

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

## INTERNATIONAL STUDENTS

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

### International Student Admissions (F-1 Visa)

The following deadlines are required for degree-seeking students residing outside of the United States seeking the F-1 student visa:

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

All international students must submit the following to the International Students Office (ISO) at Spring Creek Campus in Room G103.

1. An application for admission.
2. One of the following: an official TOEFL score of 525 or the computerized TOEFL score of 197 or above; the Internet-Based (IB) test score of 71 or above. Collin College's institutional code is 6805. The institutional TOEFL score of 525 from the University of Texas at Arlington, University of Dallas, or University of Phoenix will be accepted in lieu of the official TOEFL score report. Students who can document graduation from the Intensive English Language Institute of the University of North Texas will be exempt from the TOEFL requirement.
3. A notarized Affidavit of Support form dated within six months of the beginning of the semester and the supporting evidence statement.
4. An official transcript (mark sheets, school records) from the last school attended.
5. Copy of the passport page showing official name, date of birth and citizenship.

Upon arrival at Collin College, all original immigration documents including a valid visa (I-94 arrival/departure record), an unexpired passport, copy of the I-20 and the original Affidavit of Support will be copied and kept on file with ISO.

Texas Success Initiative (TSI) assessment to be taken upon arrival at Collin College.

Foreign transcripts will not be evaluated.

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

### Transfer International Students within the United States (F-1 Visa)

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

1. A copy of current I-20, passport, visa and I-94 card.
2. Transfer clearance from the international student advisor at the last college or university attended.
3. TSI test score or SAT/ACT scores showing exemptions. See TSI section for details.
4. F-1 visa holders seeking enrollment in credit level ESL courses only must meet all admission requirements as

listed, excluding TOEFL. ESL assessment will be required for placement in credit level ESL courses.

5. Official transcripts from all colleges/universities attended in the United States.

Degree-seeking transfer students should submit admission requirements prior to the deadlines listed in the class schedule to ensure enrollment.

For more information, contact the International Students Office at Spring Creek Campus, Room G103, 972.516.5012.

## **STUDENTS ON ACADEMIC SUSPENSION**

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See "Academic Standards" on page 26 or contact an academic advisor on any campus for more information.

## **RESIDENCE REQUIREMENTS**

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

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

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

Students (age 24 and under) who are a dependent of a Texas resident should contact the Admissions and Records Office for more information.

## **Documents to Support Residency**

Documentation of Texas residency will be required to prove residency. Generally, the following documents may be used in meeting residency requirements:

- Texas public, private, home school or high school transcript (if enrolled the last 12 months) showing three years of attendance and a graduation date.
- Letter of employment on company letterhead (verifying one year of employment).
- Proof of paying in-state tuition at a Texas public institution of higher education during the previous fall or spring semesters.

Contact the Admissions and Records Office for additional information.

## **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 the deed or most recent property tax statement is required for verification. If this waiver is based on a student's (under age 24) parents' property ownership, go to the Financial Aid Office for the proper form to complete. Once Texas residency has been established (12 months), ad valorem waivers expire and additional residency must be provided. Property owners on most types of temporary visas are not eligible for the ad valorem waiver. Students and/or their parents must generally be U.S. citizens or permanent residents to be eligible for an ad valorem waiver.

## **REGISTRATION PROCEDURES**

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### **Collin College Registration Guide**

A Registration Guide is available each semester at the information desk at CPC, PRC and SCC or online at [www.ccccd.edu/schedules.html](http://www.ccccd.edu/schedules.html). The guide contains valuable information on important dates and deadlines, registration procedures, tuition and fees, student services and more.

### **Online Registration**

Online Registration provides students with an opportunity to register early in courses for the upcoming semester. This process is designed for students who have completed admissions, TSI requirements and assessment requirements and who have met with an academic advisor. Online Registration enables students to have earlier course selection, more comprehensive academic advisement, and more. See the current Collin College Registration Guide for a listing of dates, times and complete instructions.

### **On-Site Registration**

On-Site Registration is scheduled prior to the beginning of classes with admissions, assessment, TSI testing and academic advising services available at that time. Comprehensive admissions, assessment, TSI testing and advising programs are more easily obtained prior to On-Site Registration, and students are encouraged to complete these steps early. Tuition and fees are due at the time of registration. See the current Collin College Registration Guide for a listing of On-Site Registration times and locations.

### **Add/Drop**

Students registering during Add/Drop must meet all TSI requirements. Students may also add available classes through the third class hour of the course being added. Students may add and/or drop classes through the CougarWeb system through the first week of classes. After the first week, students must come, in person, to any campus to make any schedule change. Add/drops

made on the same day will be an even dollar exchange for the same number of hours. Dropping one day and adding another day will result in an additional charge.

### Registration for Continuing Education and Workforce Development Classes

Each semester Collin College offers continuing education classes to community members through Continuing Education and Workforce Development. Registration for these classes can be done in five ways:

1. Walk-in registration: Available at Courtyard Center, Central Park, Preston Ridge or Spring Creek campuses. Times are listed in the current Continuing Education Schedule of Classes.
2. Phone-in registration: (VISA, Mastercard or Discover only) Call 972.548.6855 or 972.985.3711. Times and dates are listed in the current Continuing Education Schedule of Classes.
3. Mail-in registration: Send your registration information to: Registration, Collin 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.
4. Fax-in registration: (credit card only) Check the current Continuing Education Schedule of Classes for fax availability. Fax your registration to 972.985.3723 or 972.548.1702. See page 43 for more information on Continuing Education and Workforce Development.
5. Online registration: (credit card only) Go to [www.ccccd.edu/ce](http://www.ccccd.edu/ce) to see the current Continuing Education Schedule of Classes and registration procedures.

### STUDENT ID CARDS

All credit students at Collin College are required to have a Student ID Card to use services provided by college offices and labs including the Admissions and Records Office, the Collin Bookstore, Career Services, the Computer Lab, the Fitness Center, Library, the Math Lab, Student Life and the Testing Center. Student Life makes ID cards. Student ID office hours are listed in the Collin College Student Handbook.

Once the student has registered and paid for their courses, the ID card will be issued in accordance with the dates posted in the calendar section of the Collin College Registration Guide. Students must show a form of photo identification in order to have their student ID card issued. The ID card will be valid district-wide throughout the student's tenure at the college.

Student ID cards will be automatically reactivated each semester after the student enrolls in courses and pays the corresponding tuition and fees.

For a fee, a replacement ID card will be reissued for students whose card has been lost, stolen or damaged; who have had a name change; or who would prefer a new photo. Only currently enrolled students may request a replacement ID card. Contact Student Life for more information.

### TUITION AND FEES

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

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

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

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

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

### TUITION AND FEE SCHEDULE\*

Credit Hours	In-County \$37/credit hour	Out-of-County \$51/credit hour	Out-of State/Country \$106/credit hour
1	\$39.00	\$53.00	\$212.00**
2	\$76.00	\$104.00	\$222.00**
3	\$ 113.00	\$155.00	\$320.00
4	\$ 150.00	\$206.00	\$426.00
5	\$ 187.00	\$257.00	\$532.00
6	\$ 224.00	\$308.00	\$638.00
7	\$ 261.00	\$359.00	\$744.00
8	\$ 298.00	\$410.00	\$850.00
9	\$ 335.00	\$461.00	\$956.00
10	\$ 372.00	\$512.00	\$1,062.00
11	\$ 409.00	\$563.00	\$1,168.00
12	\$ 446.00	\$614.00	\$1,274.00
13	\$ 483.00	\$665.00	\$1,380.00
14	\$ 520.00	\$716.00	\$1,486.00
15	\$ 557.00	\$767.00	\$1,592.00
16	\$ 594.00	\$818.00	\$1,698.00
17	\$ 631.00	\$869.00	\$1,804.00
18	\$ 668.00	\$920.00	\$1,910.00
19	\$ 705.00	\$971.00	\$2,016.00
20	\$ 742.00	\$1,022.00	\$2,122.00
21	\$ 779.00	\$1,073.00	\$2,228.00

\$2 Student record fee included in above fees

\* Subject to change by the Collin Board of Trustees

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

Lab fees are not included in the above fees. Lab fees vary by course and are not included in the tuition schedule.

### FEES+

Other fees are applied as required regardless of residency.

Per Semester Student Records fee\*\*\* \$2

## Other Fees

Audit fee***	\$25 per course
Credit by Exam fee***	\$30 per course
Lab fees†	\$0-24 per lab
Late Registration fee***	\$10
Returned Check fee	\$20

\*\*\* Non-refundable

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

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

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

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

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

## COST PER CREDIT HOUR EXAMPLE

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

Per Hour	In-County	Out-of-County	Out-of-State
Tuition	\$27	\$41	\$96
Bldg. Use Fee	9	9	9
Student Life Fee	1	1	1
<b>Total</b>	<b>\$37</b>	<b>\$51</b>	<b>\$106</b>

## SENIOR CITIZEN REDUCED TUITION

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

Age 55-64 – 50 percent of their residency classification tuition plus all applicable fees.

Age 65 and Older – Tuition for up to six credit hours per semester is free on a space-available basis; other fees will be charged as stated above. See the current Collin College Registration Guide for more information.

## REFUNDS

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

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

The complete refund policy is listed in the Collin College Registration Guide.





# ACADEMIC POLICIES



## **ADDING/DROPPING COURSES**

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A change in a student's schedule may be made online through the first week of classes. After the first week, students must come, in person, to any campus to make any schedule change. 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 middle of the second week in Maymester or Wintermester. Contact the Admissions and Records Office for withdrawal deadlines for other terms.

International students should contact the International Student Office, and students receiving financial aid or veteran's assistance should see the appropriate college official before dropping or withdrawing. See "Withdrawal from the College" on page 29 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**

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Students who are auditing classes will not receive grades or credit for the course, but their transcript will indicate that the course was audited. Students who are auditing classes will not be required to take tests; however, participation in regular class activities is expected. Foreign language, sign language, computer programming, Cisco, and Microsoft classes may not be audited. (Continuing Education 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 On-Site Registration only. Audit students are subject to the usual registration process and must meet all admissions policies and guidelines. A special non-refundable audit fee is assessed for each class in addition to regular tuition and fees.

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, creative writing and COSU (Student Success) courses. This option is not available for students working toward a degree plan or intending to transfer to another institution. To select a pass/fail grade, complete the appropriate form at the Admissions and Records Office on or before the census date of the term.

## **CLASS ATTENDANCE**

Regular classroom attendance is expected of all students. Professors determine class attendance requirements; therefore, students should ascertain each professor's attendance policy on the first day of the class.

Students who receive Department of Veterans Affairs educational benefits must conform to attendance and academic standards as established by the college. It is the veteran's responsibility to understand this policy.

## **RELIGIOUS HOLY DAYS**

In accordance with Section 51.911 of the Texas Education Code, the college 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**

<b>A</b>	Excellent	4 grade points per credit hour
<b>B</b>	Above Average	3 grade points per credit hour
<b>C</b>	Average	2 grade points per credit hour
<b>D</b>	Below Average	1 grade point per credit hour
<b>F</b>	Failure	0 grade points per credit hour
<b>W</b>	Withdrawal	0 grade points per credit hour; is not computed toward cumulative GPA or cumulative hours.
<b>I</b>	Incomplete	0 grade points per credit hour; not computed toward cumulative GPA unless it is replaced with a performance grade. (See "Incomplete Grades and Contracts")
<b>AD</b>		A – Developmental Course 0 grade points per credit hour; not computed toward cumulative GPA
<b>BD</b>		B – Developmental Course 0 grade points per credit hour; not computed toward cumulative GPA
<b>CD</b>		C – Developmental Course 0 grade points per credit hour; not computed toward cumulative GPA

<b>DD</b>		D – Developmental Course 0 grade points per credit hour; not computed toward cumulative GPA
<b>FD</b>		F – Developmental Course 0 grade points per credit hour; not computed toward cumulative GPA
<b>IP</b>	In-Progress	0 grade points per credit hour; not computed toward cumulative GPA. Student has completed 70 percent of the course but is not yet at competency level; must complete the remaining work during the next regular (16-week) semester or receive an "IP" as the permanent grade. "IP" is earned only in developmental education, learning pods and flex entry courses.
<b>AU</b>	Audit	0 grade points per credit hour; is not computed toward cumulative grade point average nor cumulative hours.
<b>CR</b>	Credit	0 grade points per credit hour; is not computed in GPA but is computed in cumulative hours. Earned only when recording non-traditional credit or continuing education units; will not meet residency hours.
<b>Z</b>	No grade reported	0 grade points per credit hour until the professor replaces it with a performance grade; is not computed in cumulative grade point nor cumulative hours.
<b>P</b>	Pass	0 grade points per credit hour; is not computed in GPA but is computed in cumulative hours.
<b>XF</b>		Failure due to Academic Dishonesty
<b>XW</b>		Withdrawal due to Academic Dishonesty

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

## **GRADUATION**

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

that have been deactivated by the Texas Higher Education Coordinating Board (THECB) must be completed within three years of the date the program ended.

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.

TSI requirements must be complete in order to be considered a candidate for graduation.

Associate of Arts, Associate of Arts in Teaching, Associate of Science or Associate of Applied Science degree honors will be awarded to students with the following cumulative grade point average at Collin College:

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

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

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

## **ASSOCIATE DEGREES**

Students may earn the following degrees:

- Associate of Arts or Associate of Science
- Associate of Arts in Teaching
- Associate of Arts or Science in a Field of Study
- Associate of Applied Science and certificates

See pages 55-127 for specific degrees. To graduate, students must complete a minimum of 18 credit hours at Collin and satisfy all other degree requirements. Non-traditional and developmental course credit does not meet this residency requirement.

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

## **Summer Graduates**

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

## **Certificate Programs**

Students obtaining certificates containing 18 hours or less must complete 15 hours of coursework in residence at Collin College. Petitions for transfer credits into certificate programs containing 18 hours or less may be made to the academic

department. Students earning certificates may participate in commencement ceremonies.

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

## **Marketable Skills Achievement Awards**

Marketable Skills Achievement Awards (MSAA) are nine to 14 credit hour awards that add to the student's marketability or make the student eligible for immediate employment. These awards are also designed as a stepping stone toward earning certificates or the AAS degree.

## **High Academic Achievement**

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

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

## **INCOMPLETE GRADES AND CONTRACTS**

The "I" grade is assigned only for extenuating circumstances. Incomplete contracts must be agreed to and signed by the student, professor, chair and appropriate academic dean before the end of the term in order for a grade of "I" to be assigned. The contract must define the exact requirements (not to exceed 20 percent of the coursework) the student is to fulfill in order to receive a performance grade. If remaining work is greater than 20 percent of the coursework, the approval of the Vice President of Academic Affairs is required. Requirements of incomplete contracts must be completed as specified in the contract, but no later than the end of the next semester. The contract will 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 the instructor does not initiate a grade change by the end of the next semester, the grade will be changed by the Admissions & Records office to an "F" or other performance grade indicated on the original contract.

## **Non-Traditional College Credit (NTCC)**

Various credit options enable persons who have acquired knowledge and skills in non traditional ways to demonstrate academic achievement. For enrolled students, or students enrolled within the past year, 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 Academic Affairs/Provost, no more than 18 hours of non-traditional credit may be counted toward a degree. Non-traditional credit will be added to the transcript only after six hours of traditional, non-transfer credit is achieved at Collin College.

For additional information regarding College-Level Examination Program (CLEP) examinations, departmental examinations, advanced placement tests, Tech Prep and Armed Forces credit, contact the Director of Testing or the Admissions and Records Office.

### **Advanced Placement Examination (AP)**

Students who have received college-level training in secondary school and who have scores of three, four or five on the appropriate Advanced Placement Examination may be granted, on request, placement and credit for comparable courses at the college. After enrolling, students must complete six semester hours at the college before credit is given. For more information contact the Director of Testing at 972.548.6773.

AP Examination – Collin College Equivalent

Art/Drawing I – ARTS 1316

Art General – ARTS 1311

American History – HIST 1301 and 1302

Art History – ARTS 1303

Biology – BIOL 1406 and 1407

Chemistry – CHEM 1411 and 1412

Computer Science (AB) – COSC 1436

Economics (Macro) – ECON 2301

Economics (Micro) – ECON 2302

English Language and Composition –

ENGL 1301 (score of 3)

ENGL 1301 and 1302 (score of 4 or 5)

English Literature and Composition –

ENGL 1301 (score of 3)

ENGL 1301 and 1302 (score of 4 or 5)

Environmental Science I – ENVR 1401

European History – HIST 2311 and 2312

French Language – FREN 1411 and 1412

German Language – GERM 1411 and 1412

Government – GOVT 2301 and 2302

Human Geography – GEOG 1302

Mathematics (Calculus AB) – MATH 2413

Mathematics (Calculus BC) – MATH 2413 and 2414

Mathematics (Statistics) – MATH 1342

Music Appreciation – MUSI 1306

Music Theory – MUSI 1311

Physics (B) – PHYS 1401 and 1402

Physics (C) – PHYS 2425 and 2426

Psychology – PSYC 2301

Spanish Language – SPAN 1411 and 1412

World History – HIST 2311 - 2312

### **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. Credit for military training will

be awarded upon receipt of a student's DD214 (Honorable Discharge).

### **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 Collin College. The college uses the following criteria for CLEP Subject

Examination evaluation:

1. CLEP credit shall be recorded on transcripts with a "CR" in order to be clearly recognized as credit earned by examination.
2. CLEP credits shall not be granted if they duplicate credits for courses already completed.
3. Credit is awarded for CLEP Subject Examination scores at or above the 70th percentile. Official score reports should be sent to the Director of Testing, CLEP Center: 1951.
4. A non-refundable processing fee will be charged for each CLEP examination in addition to the required fee for the CLEP examination.

### **Credit by Exam (Departmental Exams)**

Credit for some courses may be granted upon successful completion of a comprehensive examination over the content of the course. A non-refundable fee is charged for each course examination. Students must be currently or previously enrolled and have earned credit at the college to receive credit by examination. Credit by exam may be attempted only once for any given course. Students currently enrolled in the course they wish to test out of must test or withdraw prior to the census date of the enrolled semester. The student must score at or above 70 percent to receive credit for the course. Some credit by exam may require a portfolio review.

### **International Baccalaureate Diploma (IB)**

The International Baccalaureate Diploma is an international program of courses and exams offered at the high school level. In keeping with Senate Bill 111 passed in 2005, Collin College will grant (CR) credit for IB exams with certain required scores beginning Spring of 2008.

Collin College will award up to 24 hours of course specific college credit in subject appropriate areas on all IB exams scores of 4 or above as long as the student has earned an IB diploma. Students must have an official IB transcript sent to Collin College.

Collin College will maintain in residence coursework minimums and the non-traditional credit maximum of 18 hours. Students with an IB Diploma who meet the requirements for more than 18 credit hours will be allowed only IB credit.

For more information, please contact the Director of Testing at 972.548.6773.

## Portfolio Review for Credit

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

1. The student must pick up an institutional Credit by Exam/Portfolio Review form from a campus Testing Center and follow steps as prescribed.
2. Contact one of the full-time faculty in the discipline for an appointment to review the student's portfolio.
3. The professor will review the portfolio to see if the coursework meets all the course requirements for which the student seeks credit.
4. If the student's portfolio meets or exceeds the competencies, the professor will complete and submit the Credit by Exam form, which will be returned to a campus Testing Center for credit.

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

## STUDENT RECORDS

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### Procedure to Inspect Education Records

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

### Disclosure of Education Records

The college 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 comply with a judicial order or a lawfully issued subpoena.
9. To appropriate parties in a health or safety emergency.
10. As it relates to directory information, unless the student restricts directory information.
11. To the student.

12. Results of disciplinary hearing to alleged victim of a crime of violence or sexual harassment.
13. To Collin College's public safety officers in a health or safety emergency.

## Directory Information

In compliance with the Family Educational Rights and Privacy Act (FERPA) of 1974, Federal Law 99-380, information classified as "Directory Information" may be released to the general public without the consent of the student. Directory information is defined as:

1. Student name
2. Student address
3. Telephone listing
4. Major field(s) of study
5. Participation in officially recognized activities and sports
6. Weight and height of athletic team members
7. Dates of attendance/enrollment
8. Most recent previous educational institution attended
9. Degrees and awards received
10. Photo/visual likeness
11. College-issued e-mail address

A student may request that directory information be withheld from the public by completing and filing a written request with the Admissions and Records Office. If no request is filed, directory information will be released upon inquiry. Filed requests are valid until revoked by the student in writing.

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

## REPEATING COURSES

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Grades of all courses taken will be recorded on the student's transcript. The highest grade earned will be used in computing the grade point average and applied toward degree or program requirements. A course in which a grade (including W) has been received can be repeated only one time to replace the grade. The grade received does not affect the student's ability to repeat a course. Registration holds will be placed on courses that have been attempted twice.

Veterans should consult the Director of Financial Aid/Veterans Affairs before repeating any course. Students planning to transfer to another college or university should check with a Collin College academic advisor or with receiving institutions for their repeat policies.

## ACADEMIC STANDARDS

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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 each semester and maintain a 2.0 or better cumulative grade point average (GPA) are considered in good standing.



## **Students Success Program (SSP)**

SSP refers to the policies and procedures that govern Collin College students on any academic action status as outlined below. The policies set forth will be strictly enforced. Students are required to develop an individualized plan for success in consultation with a full time academic advisor. In order to have academic holds removed, a student must maintain a cumulative GPA of 2.0 for two regular (16-week) semesters. In an effort to promote student success, students participating in the Student Success Program (SSP) will not be permitted to enroll in classes after the late registration deadline.

This includes regular (16-week) classes and all express and flex entry classes. Students who do not meet the academic standards and do not earn a minimum 2.0 cumulative GPA will be placed on one of the following academic actions.

## **Academic Warning**

Students who have less than a cumulative 2.0 GPA and have 0- 8 earned hours \* will be placed on academic warning. A registration hold will be placed on the student's records. Students must meet with a full-time academic advisor to discuss available support services and to have the academic hold removed.

*\*NOTE: Earned hours refer to the number of credit hours a student completes, including college level, developmental, non-traditional and transfer work.*

## **Academic Probation**

Students who have less than a 2.0 cumulative GPA and 9 or more earned hours in previous semesters will be placed on academic probation. Students on academic probation will be required to meet with a full-time academic advisor in order to register for classes. Probation students are limited to 13 semester hours during each regular (16-week) semester. Students on academic probation must meet the following requirements:

- Limited enrollment of no more than 13 credit hours per semester.
- Enroll in a mandatory student success class (included within the 13 semester hour limitation). A student who fails or withdraws from a study skills class will have course enrollment limited to six credit hours the next semester including a study skills class.
- Submit a progress report at mid-semester.
- Earn a 2.0 GPA for the current semester.

## **Continued Enrollment on Probation**

Students whose status is academic probation who wish to continue their enrollment and have earned a 2.0 GPA for the semester, but who still have a cumulative GPA of less than 2.0, may continue their studies at the college. The student must maintain a current 2.0 GPA for each subsequent term. Students on continued enrollment on probation will have a hold placed on their record and will be required to meet with a full time academic advisor. Enrollment stipulations are the same as those outlined under Academic Probation.

## **Academic Suspension**

Academic suspension occurs when a student whose previous status was Continued Enrollment on Probation fails to earn a 2.0 GPA for the current semester and has a cumulative GPA below 2.0. Students on this status will be suspended from the college for one regular (16-week) semester.

## **Readmission after a Period of Academic Suspension**

After a period of academic suspension (one regular 16-week semester), a student may be readmitted on academic probation status. Before readmission, the student must meet with a full-time academic advisor or a full-time academic advisor and complete a Petition for Readmission. This meeting is designed to assist the student in formulating an individualized plan for success. Enrollment stipulations are the same as those outlined under Academic Probation.

## **Academic Dismissal**

Students who were previously on academic suspension, have been readmitted on probationary status and did not earn a 2.0 GPA for the current semester will automatically be dismissed from the college for a period of one academic year [two regular (16-week) semesters].

## **Readmission after a Period of Academic Dismissal**

To be considered for readmission to the college, students must meet with a full-time academic advisor, submit a Petition for Readmission and meet other re-enrollment requirements based on the student's individual situation, as determined in consultation with a full-time academic advisor. If readmitted, students must earn a 2.0 GPA for current semester (credit hours approved may be below 13). If a 2.0 GPA is not earned, the student will automatically be dismissed from the college for a period of two years. After two dismissals, a student is required to maintain a 2.0 GPA for current semester.

If 2.0 GPA is not maintained, a student is placed on permanent academic dismissal.

## **Students on Probation, Suspension or Dismissal from Other Colleges**

Students on probation, suspension or dismissal from other colleges may seek enrollment at Collin College. To be considered for admission, the student must have an official transcript and an unofficial transcript, or grade report from the most recent college attended. Once this requirement is met, the following must be completed:

- Application for Admission.
- Meet with a full-time academic advisor or designated advisor.
- Enroll in a study skills class, with a total enrollment not to exceed 13 credit hours.

A student must earn a 2.0 cumulative GPA for the first semester enrolled. If a 2.0 GPA is not achieved, the student will be placed on suspension for one regular (16-week) semester.



A student must maintain a 2.0 cumulative GPA for two regular (16-week) semesters in order for the academic hold to be removed.

### **Right of Appeal**

A student placed on academic dismissal has the right to appeal to the Academic Progress Appeals Committee. The appeal process will allow a student to appeal a dismissal for unsatisfactory academic progress based upon: (a) the death of a relative, (b) an injury or illness of the student or (c) other special circumstances.

Information about the appeal process may be obtained from the Academic Advising Department or the college website.

## **STUDENT CLASSIFICATIONS**

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**Freshman:** A student who has successfully completed fewer than 30 quality hours.

**Sophomore:** A student who has successfully completed 30 or more quality hours, but has not earned a degree.

**Full-time:** A student enrolled for 12 credit hours or more in a regular (16-week) semester, six credit hours or more in a five-week summer session, or nine credit hours or more in a 10-week summer session.

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

Classification varies for courses meeting on alternative or accelerated schedules.

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

## **STUDENT SELF-SERVICE ENROLLMENT VERIFICATION**

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This program provides students with online access to enrollment verification services from the National Student Clearinghouse. By using a link on the college website, students can achieve the following:

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

Website: <https://studentservices.ccccd.edu> . Click on "Click Here to Enter Student Services." Then go to "Student Self Service Enrollment Verifications."

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

## **STUDENT LOAD**

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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 contact the Registrar.

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

Students may, with special permission from the Registrar, enroll for more than 18 credit hours during a regular session and seven hours in a summer session. Permission will not be granted unless the student has a 3.0 cumulative grade point average and plans to carry no more than 21 hours during a regular (16-week) semester or nine hours during a summer session.

Students are limited to one course (maximum three credit hours) during the Wintermester or Maymester sessions.

## **STUDENT RIGHT TO KNOW**

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

## **TRACKING OF AT-RISK STUDENTS**

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

## **TRANSCRIPTS**

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Requests for official transcripts must be made by the student to the Admissions and Records Office. A student's written permission must be on file in the Admissions and Records Office before transcripts will be released to other parties (except for releasing to the student or another school). To request a transcript, students may complete a Transcript Request form available from the Admissions and Records Office, mail or fax a signed request to the Admissions and Records Office or access the college website at [www.ccccd.edu/aro/transcriptinfo.htm](http://www.ccccd.edu/aro/transcriptinfo.htm) .

## **VERIFICATION OF STUDENT DEGREES**

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

## **VETERANS CERTIFICATION**

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Veterans wishing to enroll and receive benefits should contact the Financial Aid/Veterans Affairs Office. In order to receive benefits, veterans must maintain satisfactory progress as stipulated by college policy. All prior education and training earned through civilian or military education must be submitted to the degree plan coordinator for transfer evaluation.

## **WITHDRAWAL FROM THE COLLEGE**

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### **Withdrawal Policy**

#### **Texas Education Code 51.907 Course Drop Limit Provisions**

Students who enroll as an entering freshman or a first-time college student in undergraduate courses at any Texas public community college, technical institute, health sciences institution, or any public university offering undergraduate courses must comply with the legislation of TEC51.907.

TEC51.907 states that students who enroll for the first time during the fall 2007 semester or any subsequent semester are subject to the course drop limit of six course drops. This includes any course a transfer student has dropped at another institution. Collin College will begin to count dropped courses during the fall 2008 semester.

*NOTE: Students will not be allowed to withdraw from classes at Collin if all official transcripts (required for admissions) are not on file.*

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 a written request for such action. The request must include the student’s signature, address, CWID number, date of birth and phone number(s) and the course names and numbers. The date postmarked on the envelope will be the official withdrawal date.

Students should contact their professor prior to initiating a drop or withdrawal. Withdrawal from the college must be student-initiated.

Students who discontinue class attendance and do not officially withdraw will receive a performance grade for the course.



# STUDENT DEVELOPMENT



## **ACADEMIC ADVISING**

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

Students are strongly encouraged to meet with an academic advisor each semester to evaluate their academic progress.

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

- Assistance for undecided and new students in selecting a field of study
- Facts about classes and programs
- Assistance with registration as a Collin College student and adjustment to college life
- Information about academic requirements
- Procedures for dropping a class, appealing grades, registration, etc.
- Preparation for Webline registration
- Assistance in establishing a degree plan
- Transfer information for those planning to attend a college or university
- Advising for the Student Success Program (SSP)

## **ACADEMIC ETHICS**

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Collin College expects all members of the academic community to demonstrate honesty and integrity in every endeavor. Plagiarism, collusion, cheating and other acts of scholastic dishonesty lessen the entire process of learning and acquiring knowledge.

For more information on Scholastic Dishonesty, see the Collin College Student Handbook or contact the Dean of Students Office.



## ACCESS

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### Disability Services

ACCESS (Accommodations at Collin County for Equal Support Services) is a comprehensive accommodations program for all Collin College students with disabilities.

Following the Americans with Disabilities Act of 1990 guidelines and Section 504 of the Vocational Rehabilitation Act of 1973, reasonable accommodations for students with documented disabilities are provided. Students with disabilities are encouraged to make an appointment with an ACCESS advisor at least one month prior to the beginning of classes. For students in applied science programs, check the ADA statement for more information on documentation guidelines. Services include, but are not limited to: interpreters, CART, note takers, scribes, readers, special seating and testing accommodations. A certified educational diagnostician may conduct psycho-educational evaluations for students requiring testing for learning disabilities. Following evaluation of the test results, the diagnostician makes recommendations to the student.

The law requires that students must self-identify to the ACCESS Office and provide required current documentation to that department. It is the student's responsibility to pick up their accommodations letter each semester to receive requested accommodations.

Assistive technology and software are available on each campus for students with disabilities. Please contact the ACCESS Office for more information.

The ACCESS Office also processes the paperwork for Deaf/Blind tuition waivers. The student must meet all entrance requirements as outlined by the Admissions and Records Office and bring the following information to be considered for a tuition waiver: certificate of deafness or blindness, letter of good morale character, high school transcript or diploma, statement of purpose with degree or certificate declared and proof of residency. This information should be provided to the ACCESS Office at least a month before the student will be attending Collin College. Students must notify the ACCESS Office immediately upon registering for classes each semester to obtain a tuition waiver, or their classes will be dropped.

### Tutoring

The ACCESS Office provides tutoring services for all students at the college. For information about tutoring, contact the Coordinator of Student Support Services at Spring Creek Campus, Room G141, 972.881.5128.

The ACCESS Office is located at Spring Creek Campus, Room G200, and Preston Ridge Campus, Room F118. ACCESS staff is available to meet students on any campus. Please contact the office at 972.881.5898 for services on all campuses.

## ASSESSMENT AND TESTING SERVICES

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Testing Centers are located at Central Park, Preston Ridge and Spring Creek campuses for proctoring, credit by exam testing, instructional testing, assessment for course placement

and tests for TSI purposes. Collin College is an official testing site for SAT (Scholastic Aptitude Test), ACT (American College Testing Program), CLEP (College-Level Examination Program) and THEA (Texas Higher Education Assessment).

### TSI – Texas Success Initiative

TSI assessment is a test of reading, writing and mathematics that is required of all students taking college-level courses at public colleges in Texas. The test fee will be paid by the student. Students seeking teacher certification may be required to take THEA.

Performance on TSI will not be used as a condition for admission to Collin College. However, students can enroll only in developmental education coursework without having taken TSI assessment.

Students may seek exemption from TSI based on:

- A composite ACT score of 23 or higher (with individual Mathematics and English scores of no less than 19)
- A combined SAT score of 1070 (with a minimum of 500 in Mathematics and Critical Reading), or
- TAKS (11th grade or higher) with a minimum qualifying score of 2200 Math and ENLA 2200 with Writing sub-score of three.

ACT and SAT scores can be no more than five years old.

TAKS scores can be no more than three years old.

### Partial Exemptions

A student who has a composite score of 23 (or higher) can be exempt from TSI Math with an ACT Math score of 19 (or higher) even though the ACT Verbal may be less than 19. Likewise, an ACT Verbal score of 19 (or higher) even though the ACT Math may be less than 19 can be exempt from TSI Reading and TSI Writing.

A student who has a composite score of 1070 (or higher) can be exempt from TSI Math with a SAT Math score of 500 (or higher) even though the SAT Verbal may be less than 500.

Likewise, an SAT Verbal score of 500 (or higher) even though the SAT Math may be less than 500 can be exempt from TSI Reading and Writing.

A student with a TAKS Math score of 2200 (or higher) can be exempt from TSI Math. Likewise, a TAKS ENLA score of 2200 with a writing sample of three exempts a student from TSI Reading and TSI Writing.

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

*NOTE: For specific current information about TSI, contact the TSI Office at 972.881.5902. For Collin College's testing, contact the Director of Testing at 972.548.6773. All students must be assessed or provide proof of prerequisites prior to enrolling in an English or mathematics course. Developmental classes and tutorial assistance are available for students who need or want this support. Transfer students must provide documentation of TSI status. Documentation may be in the form of official TSI score reports or official transcripts.*



Students may request TSI Waived status based on the following criteria:

1. If the student is taking a course for personal enrichment as a casual student.
2. If the student is pursuing a certificate in a program with 42 or less hours of credit.

The student may request TSI Waived (not required) status by contacting the TSI Office at 972.881.5902.

#### **Passing scores for the THEA are:**

Mathematics 230  
Reading 230  
Writing 220

#### **Passing scores for COMPASS are:**

Mathematics 39  
Reading 81  
Writing 59/5

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

Students majoring in programs requiring a higher level computer science course may substitute one of the higher-level computer transfer courses for the COSC 1300 core requirement. Check with the Computer Science Department Chair. Credit by examination is available for students whose academic programs do not require advanced computer literacy; check with the Computer Science Department Chair.

#### **Mathematics Assessment Policy**

Students with a THEA score of 230 - 249 may enroll in MATH 0310 or MATH 1332. Students with a Math score of 250 - 269 may enroll in MATH 1414. Students with a math score of 270 or higher, or with a COMPASS score placing them into college algebra, may enroll in MATH 1314, MATH 1414, MATH 1324 or MATH 1342 without assessment. Otherwise, all students enrolling in mathematics courses above MATH 0300 must be assessed or show prerequisite proof. A student may enroll in MATH 0300 without assessment. Students are allowed to take the assessment twice before their mathematics entry level is established for enrollment during a semester. Students deciding not to enroll in a mathematics course during the semester of assessment may retain this assessment for one year, or may reassess at the beginning of the semester when enrollment is planned. However, once students enroll in the appropriate course and have begun the developmental mathematics sequence of courses, they must continue from the point of entry through MATH 0310 before enrolling in MATH 1314, MATH 1414, MATH 1324 or MATH 1342.

Students will not be allowed to retake the mathematics assessment test once they enroll in a developmental mathematics course unless they have an approved reevaluation petition, recommendation of their current developmental mathematics professor and approval from the Dean of Developmental Education.

#### **Reading Assessment Policy**

Students who have passed the TSI Reading or who are exempt from TSI requirements based on alternative test scores have fulfilled all Reading requirements.

All others will have a placement set in an appropriate Developmental Reading course based on their TSI or local assessment scores. These students are allowed to take a free reading assessment twice per semester in order to improve their placement. Enrollment in other courses may be limited until college level proficiency is achieved.

#### **Writing Assessment Policy**

Students who are exempt from TSI requirements by ACT, SAT or TAKS scores may enroll in ENGL 1301 without assessment. Otherwise, students may be required to take the college writing assessment for placement in the appropriate level English course and should consult with Academic Advising, the Testing Center or the academic department office for placement requirements.

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

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

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

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

#### **Other Testing Services**

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

- CLEP – College-Level Examination Program
- ACT – American College Testing Program
- SAT – Scholastic Aptitude Test
- Credit by exam subject tests designed by college faculty
- Correspondence testing (A fee is required for test administration)

#### **Collin College codes for these tests are shown below:**

- |                              |        |
|------------------------------|--------|
| • CLEP (Spring Creek Campus) | 1951   |
| • ACT (Central Park Campus)  | 40460  |
| • ACT (Spring Creek Campus)  | 42090  |
| • SAT (Central Park Campus)  | 44-646 |
| • SAT (Spring Creek Campus)  | 44-702 |
| • THEA (Central Park Campus) | 137    |
| • THEA (Spring Creek Campus) | 138    |

Students requiring more information on the above programs should contact the Director of Testing at 972.548.6773.



## **CAMPUS SECURITY – 972.578.5555**

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Collin College's police officers are licensed peace officers of the State of Texas and are trained and educated to protect life and both college and personal property. These officers are vested with full authority to enforce all Texas laws and regulations. All Texas motor vehicle laws will be enforced on Collin College campuses. As indicated by section 51.205 (Higher Education Code) all parking regulations will be enforced on Collin College properties.

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

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

For more information, contact Public Safety at 972.578.5555 or visit [www.ccccd.edu/campuspolice/](http://www.ccccd.edu/campuspolice/).

## **CAREER SERVICES & COOPERATIVE WORK EXPERIENCE**

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Career Services & Cooperative Work Experience (CSCWE) offers a variety of services to enhance career development and features key steps to assist with career decisions and building skills for the job search process. These services are FREE to students and Collin College graduates, and any are available to members of the community. There is a nominal charge to community members requesting career assessments with professional interpretation. Check our website by going to [www.ccccd.edu](http://www.ccccd.edu), click on "Current Students," and click on "Student Services." Visit the Career Center nearest you or call for information at:

Central Park Campus: Room A108, 972.548.6747

Preston Ridge Campus: Room F109, 972.377.1781

Spring Creek Campus: Room G103, 972.881.5781

### **Career Assessment and Planning Assistance**

Career counseling is available to assist students and community members with self-assessment and planning for career decision-making. A career counselor may request a meeting to get acquainted and to determine whether career assessments would be of help. If agreed upon, the next step is to take three types of self-assessments that can demonstrate how personality, work values and career interests come together to provide direction. The career counselor interprets assessment results and helps participants set action plans for education and possible work experience. This may include coaching in resume writing and interviewing skills. These services are available to students throughout their academic studies at Collin College and to graduates. See above regarding fees for services.

## **Off-Campus Employment**

CS&CWE posts off-campus positions ranging from entry-level to professional, part-time and full-time. A web-based listing of current job openings is available for students and Collin College graduates in each CS&CWE office. Students may also upload resumes for employer review.

## **On-Campus Employment**

CSCWE posts on-campus jobs for student assistants or Federal Work Study employees in various departments, labs, libraries and fitness facilities. Hourly compensation is above minimum wage. To work on-campus, all students must be actively enrolled in at least one credit-hour class and must have a Social Security number to begin working. F1 visa students may have additional guidelines. See the Financial Aid section about eligibility and application for Federal Work Study funding. Contact a CSCWE office for an on-campus application, job search assistance and processing after employment.

## **Cooperative Work Experience**

Cooperative Work Experience (Co-op) is an educational program (academic course) designed to provide actual work experience that relates classroom study to career choice.

Course elements include hands-on work experience, specific learning objectives, and participation in specialized, professional development seminars to build the skills employers are requesting. The integration of academic concepts with planned, supervised work experience assists students in developing greater self-awareness and validating career direction.

Co-op is designed to serve students in two-year technical fields as well as transfer-oriented students desiring academic co-ops. Most positions are paid. There are also unpaid opportunities in academic co-op fields that require volunteer work to start, such as radio and television. Some disciplines require academic co-op courses in the degree or certificate plan.

Students for whom this applies are encouraged to contact Co-op at least one semester prior to desired Co-op enrollment. Co-op has open enrollment every month based upon when a student accepts a position. Students must obtain permission from the Co-op Office for these courses, and some require prerequisite(s) or instructor permission.

To be eligible, students must have completed at least one semester at Collin College, have declared a major for a degree or certificate, have a minimum of 2.5 GPA, have accumulated up to nine credit hours in their major, be able to work at least 20 hours per week and be concurrently enrolled in at least one additional three-hour academic course at Collin College. Students with F1 visas have additional guidelines.

A student who is presently employed may use a current job for the academic co-op course if it relates to his/her ultimate career goal. Students who are seeking related work experience may utilize Co-op job search assistance to obtain work that can be used to receive college credit. Work hours for a 16-week semester, along with 16 hours of classroom seminars and setting specific goals for the work period are the key components of this course

which allows a student to earn credit hours towards a declared program. Work hours per week and number of weeks change with Summer III.

Students must contact Co-op to enroll. For more information, call 972.881.5104.

### **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 the college.

The program can be initiated by the employer or graduate, within 90 days of the graduate's initial employment, by submitting a written request to the Vice President/Provost of Academic Affairs.

## **COUNSELING SERVICES**

### **Personal Counseling**

The college's counseling program supports and assists 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 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 and health education seminars and encourages awareness of issues of concern to both traditional and non-traditional students.

Counseling addresses a variety of issues including:

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

The counseling program offers crisis intervention, goal focused therapy, assessment and referral services. The counseling staff adheres to the appropriate ethical and legal standards as required by their licensure, and contact with Counseling Services is confidential within these guidelines. There is no fee charged to students for counseling services. For additional information or assistance with counseling concerns, call Spring Creek Campus, 972.881.5126; Central Park Campus, 972.548.6615; or Preston Ridge Campus, 972.377.1671 or 972.377.1735.

For additional information about these services, please call 972.377.1088 or 972.881.5126.

## **ZERO TOLERANCE OF VIOLENCE**

ZERO Tolerance of Violence is a project of Counseling Services dedicated to the belief that safety from sexual assault, stalking, and intimate partner violence derives from knowledge, respect, and unity of goals. The project promotes safety from sexual assault, stalking, and intimate partner violence by raising awareness and providing education and training to students, faculty, and staff.

For additional information, please call 972.881.5820 or visit [www.ccccd.edu/zero](http://www.ccccd.edu/zero).

## **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 by commissioned police officers as prescribed by law. See the Student Code of Conduct in the current Collin College 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 (passed in 1987), the college forbids the unlawful delivery, manufacture, possession, sale, purchase, use or distribution of illegal controlled substances (as defined in the Texas Controlled Substance Act) such as alcoholic beverages, steroids, inhalants, herbal/"natural" euphorants, look-alike products, substances referred to as "designer drugs" and the inappropriate or illegal use of over-the-counter or prescription medication at the college, on college property, at Century Court Apartments or while attending college-sponsored activities on or off campus.

For more information, refer to the current Collin College Student Handbook, Dean of Students, Director of Counseling or Director of Human Resources. Information can also be found at [www.ccccd.edu/campuspolice/](http://www.ccccd.edu/campuspolice/).

### **Emergency Closing of the College**

If classes have been cancelled, an announcement will be made via the college's website ([www.ccccd.edu](http://www.ccccd.edu)) and CougarAlert. In addition, announcements will be made on local radio and television stations. A decision to cancel classes will usually be made by 4 p.m. for evening classes and by 6 a.m. for day classes.

### **CougarAlert**

CougarAlert will be used for unscheduled closure or evacuation of a single campus or the entire district. CougarAlert allows students and employees to subscribe for free\* emergency alerts via text message, digital phone message or e-mail. CougarAlert will not be used for promotional purposes or for scheduled closures, such as holidays. To subscribe to CougarAlert, visit [www.ccccd.edu/cougaralert](http://www.ccccd.edu/cougaralert).

*\*While there is no fee to subscribe, standard text messaging fees from service providers may still apply.*

## Reporting Emergencies

If an emergency should arise on campus, call Campus Police at 972.578.5555, report it to the campus Provost's Office or to the building liaison at the Courtyard Center for Professional and Economic Development.

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.

## FINANCIAL AID

As a service to Collin College students, the Financial Aid Office administers a financial aid program that includes grants, loans and part-time employment. Financial aid officers are trained to assist students in realizing their educational goals. Aid is offered to eligible students who are registered by the college's official census date.

A primary purpose of the college's financial aid program is to provide assistance for students who might otherwise find it difficult or impossible to attend college. All students are encouraged to apply for financial aid.

Students should not withdraw from college for financial reasons without first consulting with the Financial Aid Office. All financial aid students must become familiar with the standards of academic progress. For more information, look on the college website ([www.ccccd.edu/studentservices/students.html](http://www.ccccd.edu/studentservices/students.html)).

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

A financial aid student who earns all F's for the semester must have one instructor provide proof to the Financial Aid Office that the student was in an academically-related activity for at least 60 percent of the semester. Otherwise, that student will owe money back to a financial aid program.

## 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.

### \* Academic Competitiveness Grant

An eligible student may receive an Academic Competitiveness Grant (ACG) of \$750 for the first academic year of study and \$1,300 for the second academic year of study. To be eligible for each academic year, a student must:

- Be a U.S. citizen;
- Be a Federal Pell Grant recipient;
- Be enrolled full-time in a degree program;

- Be enrolled in the first or second academic year of his or her program of study at a two-year or four-year degree granting institution;
- Have completed a rigorous secondary school program of study (after Jan. 1, 2006, if a first-year student, and after Jan. 1, 2005, if a second-year student);
- Have not been previously enrolled in an undergraduate program if a first-year student; and
- Have at least a cumulative 3.0 grade point average on a 4.0 scale (as set forth in regulations to be promulgated soon) for the first academic year if a second-year student.

## Federal Supplemental Educational Opportunity Grant (FSEOG)

The FSEOG provides assistance for eligible students who show financial need and are making satisfactory progress toward their educational goal. Priority is given to students demonstrating the greatest of financial need.

## Federal Work-Study (FWS)

Students demonstrating financial need may be considered for the work-study program. Students are employed to work at various jobs on campus or at other district sites. They are allowed to earn the amount designated in their award package.

## Federal Stafford Loan Program

This program permits a student to borrow money from a commercial lending agency without the need for collateral. The federal government guarantees repayment of the loan and pays interest on the subsidized amount borrowed until six months after the student graduates or ceases to be enrolled at least half-time. The 6.8 percent interest rate is fixed. Dependent students may borrow \$3,500 for the first year (0-30 hours) of completion in their program of study. During the second year (31 or more hours), the maximum is \$4,500. The maximum amount a student may borrow depends upon eligibility, dependency status, year in school, previous student loans borrowed and enrollment status for the year.

## Federal PLUS Loans

Federal PLUS Loans are for parents who want to borrow money to help defray the cost of their children's education. Like Federal Stafford Loans, Federal PLUS Loans are made from a lender such as a bank, credit union or savings and loan association. Credit rates will vary. Parents may borrow up to the cost of the education, minus resources and aid. The 8.5 percent interest rate is fixed.

## FINANCIAL AID PROGRAMS – STATE ASSISTANCE

### Texas Public Education Grant (TPEG)

The TPEG program is a state financial aid program designed to assist students attending state-supported colleges. Students must demonstrate financial need and be making satisfactory progress toward their educational goals. The actual amount

of the grant varies depending upon the availability of funds to the college, the student's financial condition and other aid the student is receiving (range: \$200-\$2,200/year).

### **TEXAS Grant**

Students may be eligible for this grant if the following conditions are met:

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

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

### **TEXAS Equal Opportunity Grant (TEOG)**

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

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

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

### **ADDITIONAL FINANCIAL AID INFORMATION**

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

Students may apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA). The FAFSA is available online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov).

The college's Title IV number is 016792.

### **Priority deadlines are:**

- Fall Semester – May 1
- Spring Semester – October 1
- Summer Terms – February 1

## **INSTITUTIONAL POLICY OF SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL AID (Effective May 2008)**

This is an official statement of Collin County Community College District policy related to the financial aid operational definition of Satisfactory Academic Progress of students for Collin County Community College District (CCCCD) effective for 2008-2009 and subsequent academic years.

### **I. Incremental Measurement of Progress**

The Financial Aid Office evaluates the satisfactory academic progress of Collin students who receive financial aid including grade point average and the number of hours completed at least once each academic year.

### **II. Completion Requirements**

1. The maximum number of hours students may attempt is limited to 90 credit hours. Students surpassing 90 attempted hours will be approved to complete one degree/ certificate provided they meet all other requirements included in this policy. All hours, including those taken while not receiving Title IV aid, those taken under a different major, hours attempted during summer sessions, hours transferred in from previous institutions, etc shall be counted toward total hours attempted.\*
2. Enrollment status (hours attempted) is determined by the student's enrollment on census date (12th class day during the Fall and Spring semesters; 4th class day during the Summer semesters).
3. Twelve or more hours is considered full-time. Nine to eleven hours is considered three-quarter time. Six to eight hours is considered half time.
4. Students must complete 67% of attempted hours per academic year (an academic year equals two long semesters).
5. Students who completely withdraw from a semester while on aid (either officially or unofficially) are no longer eligible for financial aid.
6. A grade earned of A, B, C, and D is used to compile hours completed. Withdrawals, grades of F, incomplete courses, repeated courses, and noncredit remedial coursework are counted toward attempted hours.

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

A student with a cumulative GPA of 2.0 or above and meets the requirements under Item II is considered to be making satisfactory academic progress, including enrollment during the summer semesters.

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

A student who is denied aid under this policy is once again eligible for aid after supplying the Financial Aid Office with documents proving that he/she meets the requirements under Items II and III, or is approved on appeal.



## V. The Appeal Process

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

### Additional Information: Return of Title IV Funds

Title IV aid is earned in a prorated manner on a per diem basis up to and including the 60% point in the term. After the 60% point all aid is considered earned. The percentage earned is calculated by dividing the number of days completed by the number of days in the repayment period. It is the unearned percentage of aid that determines the amount that must be returned to the Title IV program(s) in the following order: Unsubsidized FFEL Loan, Subsidized FFEL Loan, FFEL Parent PLUS Loan, Pell Grant, ACG, and SEOG. The student is not responsible for returning funds to any program to which the students owes \$50.00 or less. The grant funds returned by the student are applied to the following sources in the order indicated, up to the total amount disbursed from that grant program minus any grant funds the school is responsible for returning to that program. Title IV Grant Program sources include: Pell, ACG, and SEOG. The Department of Education considers a student who earns all F's to have unofficially withdrawn unless an instructor can prove otherwise. The college, as well as the student may be required to return to the federal government the unearned portion of the Title IV funds. The institution will require students to repay charges resulting from the institution's portion of the return of unearned Title IV aid. This may cause the student to owe both the college and the federal government. Students withdrawing prior to disbursement may be eligible for a post-withdrawal disbursement. Students who are considering withdrawing should contact the Financial Aid Office for a thorough explanation of how this policy will affect them.

*\* The Admissions and Records Office (ARO) is the point of record for determining the number of credit hours that transfer into the institution.*

### Veterans Educational Benefits

Students requesting Educational Benefits at Collin College should submit all documentation to the Financial Aid/Veterans Affairs (VA) Office at least six weeks prior to registration, if possible. The steps necessary to do this include:

1. Gain admission to Collin College through the Admissions and Records Office.
2. Submit a degree plan request and all required VA forms to the Financial Aid/Veterans Affairs Office.
3. Ensure all transcripts from prior institutions are submitted to the degree plan coordinator for transfer evaluation.

*PLEASE NOTE: Only after an official degree plan is on file will notification of enrollment be sent to the Department of Veterans Affairs. Only classes that are on the official degree plan will be paid for. It is the student's responsibility to ensure the degree program selected is a program approved by the Texas Workforce Commission and the Department of Veterans Affairs.*

If there has been a break of more than two regular 16-week semesters, additional VA documents will be required as well as transcripts from any schools attended during the break.

Any class that is recommended, but not required by a degree program, cannot be certified with the VA. Additionally, classes required for graduation at another institution, but not by Collin College, cannot be certified.

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

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

A grade of D or better received at Collin College, or any other college, is a passing grade and may not be repeated for benefits. If a nonpunitive grade of I is assigned to a course and is not converted to a punitive grade, this will be reported to the Veterans Affairs 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 at Collin College.

## FINANCIAL AID PROGRAMS – SCHOLARSHIPS

### Collin College Foundation Scholarships

Through generous contributions from individuals and businesses, the Collin College Foundation is able to award academic scholarships for Collin students. Scholarships are available to new and continuing students. Scholarships provide students with the opportunity to pursue academic excellence and secure the degrees of their choice. Scholarships awards are based on field of study, civic engagement, academic achievement, merit and financial need. All students are encouraged to apply for Foundation scholarship awards.



Students are encouraged to visit the foundation website at [foundation.ccccd.org](http://foundation.ccccd.org) For additional scholarship information. The priority deadline for applications is the first Monday in May for the following academic year, and scholarship applications are accepted online only. Foundation scholarship information is also available in the Foundation Office at Courtyard Center, Room A100; the Financial Aid Office at Central Park Campus, Room A111; Preston Ridge Campus, Room F141; Spring Creek Campus, Room G119 and on the scholarship bulletin boards at each campus.

### **Collin College Athletic Scholarships**

Scholarships are also available for men's and women's basketball and tennis.

### **Collin College Departmental Scholarships**

Art, child development and education, dance, music, photography and theatre scholarship information is located in each of the respective departments.

## **FINANCIAL AID PROGRAMS – OTHER**

### **Waivers**

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

#### **Financial Aid Waivers**

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

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

- Ad Valorem Tax
- Contract Training for Out-of-District
- Senior Citizen
- Economic Development

## **HEALTH SERVICES**

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

### **Bacterial Meningitis – Important Information**

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

#### *What are the symptoms?*

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

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

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

#### *How is Bacterial Meningitis diagnosed?*

Diagnosis is made by a medical provider and is usually based on a combination of clinical symptoms and laboratory results from spinal fluid and blood tests.

Early diagnosis and treatment can greatly improve the likelihood of recovery.

#### *How is the disease transmitted?*

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

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

Exposure to saliva by sharing cigarettes, water bottles, eating utensils, food, kissing, etc.

Living in close conditions (such as sharing a room/suite in a dorm or group home).

*What are the possible consequences of the disease?*

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

*Can the disease be treated?*

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

Vaccinations are available and should be considered for:

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

Vaccinations are effective against four of the five most common bacterial types that cause 70 percent of the disease in the United States (but does not protect against all types of meningitis).

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

*How can I find out more information?*

Contact your own health care provider.

Contact your local or regional Collin County Health Care Office at 972.548.5532.

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

## **Immunizations**

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

## **RECRUITMENT AND PROGRAMS FOR NEW STUDENTS**

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

### **New Student Orientation**

All first-time students to Collin College should attend New Student Orientation. The purpose of orientation is to provide a comprehensive overview of available services, resources and opportunities as well as assist students in a successful collegiate career.

New Student Orientation is a one-day orientation program designed for students who have graduated from high school within the past three years.

New Student Orientation for Non-Traditional Students targets those returning to college after an extended break and adult students starting college for the first time. This intensive orientation is conveniently held in the evening.

For additional information including dates and reservations, please call 972.377.1750, e-mail [orientation@cccdd.edu](mailto:orientation@cccdd.edu) or visit our website at [www.cccdd.edu/orientation](http://www.cccdd.edu/orientation).

### **Special Admissions**

The Special Admissions program is designed for high school students (and high school aged students, no longer in high school) who are academically advanced. Students 16 years of age or older at the high school junior level or above who meet Collin College's Special Admission criteria are encouraged to participate. Participating students must be 16 on or before the census date for the term in which they intend to enroll. The same criterion applies to home school or private high school students. Students under 16 years of age may petition the Associate Dean of Recruitment and Programs for New Students or the Registrar for college admission. Special Admission guidelines and requirements are listed on page 17.

### **Other Services Include:**

- Campus Tours (Group and Individual)
- College 101
- College Day/Night Programs
- Mentor Program
- Student Ambassadors
- Summer Showcase
- Youth Leadership Academy

For additional information or assistance with these programs, please call 972.377.1750 or visit our website [www.cccdd.edu/recruitment](http://www.cccdd.edu/recruitment).

## **Destination College**

Destination College strives to ensure all students are prepared to succeed in higher education. Collin College provides access to information and educational opportunities for improved college readiness through programs and events designed for students, parents and area school districts.

For additional information including dates of programs, please call 972.377.1772 or visit our website [www.ccccd.edu/destinationcollege](http://www.ccccd.edu/destinationcollege).

## **STUDENT LIFE**

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### **Programs**

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

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

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

### **Involvement in Institutional Governance**

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

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

See Student Life ([www.ccccd.edu/studentactivities/studentact.html](http://www.ccccd.edu/studentactivities/studentact.html)) for detailed information on how to get involved in student activities, student organizations and institutional governance.

## **STUDENT CODE OF CONDUCT**

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

The College District 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 District policies and municipal county, state and federal laws; and
2. They shall not interfere with or disrupt the orderly educational processes of the College District.

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



# EDUCATIONAL SERVICES AND OPPORTUNITIES

## **ADVANCED ACADEMIC OPPORTUNITIES**

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

The center includes speakers and research opportunities in biology, chemistry, geology, mathematics and physics. Students must have a 3.0 GPA and be selected by a CASMNS faculty member to be eligible to obtain course credit through a research project. Upon successful completion of 12 or more credit hours that include CASMNS research projects, students will receive special recognition by the college, and a notation will be included on their official Collin College transcript.

For further information, contact Mathematics and Natural Sciences at 972.881.5880 or visit the website at [www.ccccd.edu/casmns](http://www.ccccd.edu/casmns).

### **HONORS INSTITUTE**

The Honors Institute at Collin College 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 must have a 3.5 GPA to be eligible for enrollment in honors courses.

Inquiries should be directed to the Chair of the Honors Institute at 972.516.5003 or the Academic Advising Department at 972.881.5778 or visit the website at <http://iws2.ccccd.edu/honors>.

### **National Technical Honor Society**

The National Technical Honor Society was established in 1984 to honor young people and adults who choose technical education pathways to successful futures. This is the highest honor obtainable in workforce education. The purpose of the Collin College chapter is to reward excellence in workforce





education; to develop self-esteem and pride; to promote business and industry's critical work-place values (honesty, responsibility, initiative, teamwork, productivity, leadership, and citizenship); and to champion a stronger positive image for workforce education in America. Students who meet eligibility criteria for membership will receive invitations to join during the fall and spring. To learn more about the local chapter, visit the website at <http://nths.ccccd.edu> , and the national website at [www.nths.org](http://www.nths.org) .

### **Kappa Delta Pi**

Kappa Delta Pi, the International Honor Society in Education is committed to recognizing excellence and fostering mutual cooperation, support, and professional growth for educational professionals.

As part of its ongoing dedication to educators, the Society offers:

- Workshops and Conferences
- Books, Journals, and Other Publications
- Scholarships and Grants
- Community Service Projects
- Teachers Hotline
- Employment Resources
- Professional Development
- Other Resources

"So to teach that our words inspire a will to learn; so to serve that each day may enhance the growth of exploring minds; so to live that we may guide young and old to know the truth and love the right." Students who meet chapter criteria will receive membership invitations during the fall and spring semesters. For more information, visit the chapter website at <http://kdp.ccccd.edu> and the international site at [www.pdk.org](http://www.pdk.org) .

### **Phi Theta Kappa**

Phi Theta Kappa (PTK) has recognized student academic excellence in two-year colleges since 1918 and has become the largest and the most prestigious honor society serving two-year college students around the world. Phi Theta Kappa has always maintained fidelity to its founders' commitment to provide enrichment in four hallmarks: scholarship, leadership, service and fellowship.

Phi Theta Kappa features some of the nation's finest educational programs for community college students. These programs form a cornerstone of Collin College's successes in nurturing intellectual curiosity, good citizenship and leadership potential. Many scholarship opportunities are available including the USA All American Scholarships and the Guistwhite Scholarship Program.

Students who meet chapter criteria will receive membership invitations during the fall and spring semesters. For more information, visit the chapter website at <http://ptk.ccccd.edu> and the international site at [www.ptk.org](http://www.ptk.org).

### **Psi Beta**

The national honor society for community college psychology students, Psi Beta, combines academic excellence with community service. Members of Psi Beta participate in a wide range of activities including academic pursuits, community volunteer programs and social events.

In recent years, the local chapter at Collin College has expanded those activities to include major research projects that have earned several members of Psi Beta national recognition at professional conferences for both two- and four-year institutions. Members of Psi Beta also function in a variety of leadership roles throughout the college and have been honored for such efforts.

To learn more about the chapter, visit the website at <http://psibeta.ccccd.edu>.

### **Sigma Kappa Delta**

Sigma Kappa Delta is a national English honor society.

### **AIR FORCE ROTC**

Business, Information and Engineering Technologies administers the offering of Air Force ROTC courses in Aerospace Studies and University Courses. Classes are currently taught at the University of North Texas Air Force Detachment, but you register and pay via Collin College. Academic classes are open to all students.

The Air Force ROTC Program develops skills and provides education vital to the career Air Force officer as an integral part of the Collin College curriculum. Active-duty and reserve Air Force personnel provide all classroom instruction and program administration.

The program is open to male and female students. Freshmen may enroll in the four-year program, and sophomores through graduate students with at least two to three undergraduate or graduate academic years remaining may apply for the two- or three-year program (two-year program only open to certain engineering/nursing majors). Deviations from these two programs must be approved by the chair of the academic department. Students who complete any program with at least a bachelor's degree may be awarded commissions as U.S. Air Force officers.

For further information on the program, eligibility and scholarships, please visit <http://www.unt.edu/afrotc/> or contact the AFROTC detachment at 940.565.2074.

### **THE ARTS GALLERY**

The mission of THE ARTS gallery is to serve as a center for aesthetic exploration through the creative processes of fine arts faculty and students, professional artists and arts organizations.

By presenting quality, interdisciplinary art exhibitions and events,

THE ARTS gallery enhances an understanding of the arts within the college and the community and enriches individual lives.

Hours of Operation (fall and spring semesters; call for summer hours)



Mondays-Thursdays	9 a.m.-8 p.m.
Fridays	9 a.m.-5 p.m.
Saturday	10 a.m.-2 p.m.

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

## BOOKSTORE

The bookstore is an auxiliary enterprise of the college. Textbooks are selected by the faculty and ordered through the bookstore. Textbooks are priced at industry standard. New books are priced at a 25 percent margin. Used books, which are priced at 75 percent of the new book price, are purchased from various sources. For information on store hours, call 972.548.6682 (Central Park Campus), 972.985.3710 (Courtyard Center for Professional and Economic Development), 972.377.1682 (Preston Ridge Campus) or 972.881.5681 (Spring Creek Campus) or visit the bookstore website at [http://bookstore.ccccd.edu/wm\\_home.htm](http://bookstore.ccccd.edu/wm_home.htm).

### Textbook 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 are returnable during the first 10 calendar days of the fall and spring semesters and the first five days of the summer semesters for a full refund. Books purchased for Wintermester and Maymester may be returned by the second class day for a full refund.
2. Students must have their original cash register receipt to receive a refund. No cash refunds given on credit card sales.
3. Students should not write in new books until they are certain they have the correct textbooks. New books that are soiled, damaged or have been written in will not receive a full refund.
4. Books, CDs or Access Codes 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 Collin College bookstores will be replaced at no charge during the semester in which they were purchased.

### Software Returns

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

### Textbook Shortages

The bookstore makes every effort to have the required textbooks by registration. There may be shortages for various reasons: out-of-print or out-of-stock by the publisher, unexpected

increases in enrollment, late placement of orders by the faculty, missing shipments and human error. Every attempt is made to minimize these problems.

### Graphing Calculator Buyback

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

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

### Textbook Buyback

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

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

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

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

### Payment/Check Cashing

With proper identification, checks may be cashed for \$10 with or without a purchase. Mastercard, VISA and Discover cards, as well as cash and checks, are accepted as payment. When writing a check or using a credit card, students must also show a Collin College Student ID card.

## **CENTER FOR SCHOLARLY AND CIVIC ENGAGEMENT**

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The Center for Scholarly and Civic Engagement (CSCE) connects faculty, students and community partners to academic initiatives that focus on scholarship, leadership and community involvement. Scholarly activities and service to the community serve as catalysts to create deeper learning for students, while instilling democratic values of citizenship and civic engagement.

The CSCE fosters collaboration within existing programs by integrating academic activities and promoting communication between programs. CSCE supports numerous Collin College initiatives and programs including the following:

- Book-in-Common
- Center for Advanced Study in Mathematics and Natural Sciences (CASMNS)
- Collin College Distinguished Speaker Series
- Community College Day at the Capitol
- Emerging Scholars
- Honors Institute
- Learning Communities
- Phi Theta Kappa
- Psi Beta
- Service-Learning
- Student Leadership Academy
- Student Life
- Student Government Association

For information about the CSCE, call 972.881.5900 or visit [www.ccccd.edu/csce](http://www.ccccd.edu/csce).

## **CHILD DEVELOPMENT LAB SCHOOLS**

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

Students, faculty, staff and community members may enroll their children in either lab school as space permits. The children's program is designed to promote physical, social, emotional and cognitive development in a nurturing and supportive environment. Daily activities are based upon each child's needs and interests. Both lab schools are open Monday through Friday from 7:30 a.m. until 5:30 p.m.

For more information or a fee schedule, please call the Central Park Campus lab school at 972.548.6852 or the Spring Creek Campus lab school at 972.881.5945.

## **CISCO SYSTEMS NETWORKING ACADEMY**

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Collin College's Cisco Systems Networking Academy teaches students in the following authorized Cisco Sponsored Curriculum Programs: CCNA (Cisco Certified Network Associate), CCNP (Cisco Certified Networking Professional), Fundamentals of Network Security, Fundamentals of Wireless LANS, IT Essentials I and II and UNIX. The comprehensive online curriculum and intensive, skills-based learning incorporated in the Cisco Academy courses provide a student with the opportunity to

obtain the knowledge and skills to pass the associated Cisco certification exams or aligned CompTIA certification exams.

There are four CCNA courses that teach basic networking, routing and switching concepts and must be taken in sequence. Comprehensive preparation for CCNA certification requires completion of all four CCNA courses. There is no prerequisite for entry into CCNA 1, but basic computer skills and familiarity with Internet concepts are useful. The four CCNP courses teach advanced routing, switching, remote access and troubleshooting. To enroll in the first CCNP course, a student must hold a current CCNA certificate or have successfully completed CCNA 1-4 at a Cisco Systems Networking Academy. Each CCNP course maps to an associated certification exam. To become CCNP certified, a candidate must pass all four CCNP certification exams.

The Fundamentals of Network Security course teaches Cisco IOS Router security and PIX Firewall security. To obtain Cisco Firewall Specialist certification a candidate must pass two associated certification exams. Current CCNA certification or successful completion of CCNA 1-4 at a Cisco Systems Networking Academy is required to enroll in the Cisco Fundamentals of Network Security course.

The Cisco Fundamentals of Wireless LANs course has no prerequisites, but configuration experience on Cisco routers or switches is recommended. Cisco Wireless LAN Support Specialist certification may be obtained by passing the associated certification exam.

The Cisco Sponsored Curriculum courses, IT Essentials I, IT Essentials II and UNIX teach valuable hardware and software skills. There are no prerequisites for IT Essentials I or UNIX. Certification through CompTIA or Sun may be obtained by passing the appropriate certification exam.

Collin College's Cisco Academy courses are offered in a variety of formats to meet student needs including eight-week express, eight-week blended distance learning and daily flex entry. Blended distance learning courses use a combination of web sessions as well as on-campus sessions. Daily flex entry courses allow a student to enroll throughout the semester, up to a specified date. Cisco Systems Networking Academy courses may be found in "Class Schedules," on the college website.

For additional information on Collin College's Cisco Systems Networking Academy, please call Business, Information and Engineering Technologies at 972.377.1732.

## **CONTINUING EDUCATION AND WORKFORCE DEVELOPMENT**

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

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

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

Each of these specific purposes within the CEWD relates to the purpose of promoting the philosophy of lifelong learning at Collin College. The college's flexible continuing education program offers courses geared to professional development. Course material is adapted to the needs of the particular groups of participants.

### **Continuing Education Courses**

The CEWD publishes a schedule each semester offering approximately 600 courses pertaining to business, professional and personal development.

### **Continuing Education Units**

The CEWD offers courses which award credit or Continuing Education Units (CEUs), depending upon the class. CEUs are nationally recognized to record satisfactory completion of certain approved occupationally-related programs. Courses are offered throughout the county at a variety of sites depending on the types of courses and availability of facilities.

For more information on how the CEWD can be your connection to lifelong learning, please call 972.985.3750.

### **Small Business Development Center**

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

### **Business Solutions Group**

The Business Solutions Group (BSG) responds immediately to meet the current demands of business, education and industry. BSG provides answers to workforce development needs, helping companies gain a competitive edge. Services include: one-on-one

consulting, needs analysis, skills assessments, customized training and convenient delivery on site or at one of Collin College's campuses. For further information, call 972.599.3130.

### **Center for Workforce and Economic Development**

The Center for Workforce and Economic Development is proactive in seeking grant funds to assist in the workforce and economic development of Collin County and the northeast Texas region. Through partnerships with economic development organizations and collaboration with industry partners, the department assists local businesses with workforce training funded by federal, state and local agencies. For further information, call 972.599.3105.

## **DEVELOPMENTAL EDUCATION**

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Developmental Education courses are designed to provide students with the basic skills needed to achieve success in college-level courses and to pass the TSI (Texas Success Initiative). Courses are offered in mathematics, reading, writing, study skills and English as a Second Language. The instructional formats vary and include computer-based, lecture, online and self-paced. If basic skills assessment scores indicate that a student would be better prepared by taking a developmental education course prior to enrolling in a college-level class, the student must enroll in the developmental course. Developmental courses may be taken for a combined total of no more than 27 credit hours.

A three-credit hour course is available for students to enrich their development in study skills, career planning and personal development. For more information, see the COSU course description on page 141.

Developmental classes (mathematics, reading, writing, study skills and English as a Second Language) and other support programs are specifically designed to help students gain the skills and confidence needed to successfully complete credit courses. Students may be eligible to take certain developmental mathematics courses in three 5-week blocks at the Preston Ridge Campus. Please contact the Developmental Education office (972.881.5720) for details. All of the developmental disciplines are designed to provide the skills tested on TSI.

In addition to the courses, Developmental Education also offers free 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.

## **DISTANCE LEARNING**

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In an effort to accommodate the wide array of student schedules and learning styles, Collin College provides two types of distance learning credit courses: Blended and online.

Distance learning courses may apply toward associate degree requirements. Many fit into certificate program requirements, and the majority fulfill requirements for bachelor's degrees. Students are encouraged to visit with an academic advisor

to verify that a specific distance learning course will transfer into their designated college or university bachelor's degree programs.

Blended learning courses require some on-campus time and offer the flexibility to incorporate distance learning with on-site instruction.

Online courses offer students the flexibility to obtain their education via the Internet. Instructional materials, readings, assignments and in some cases class discussions may be accessed whether students are at home, at work or on vacation. Some online courses may require onsite or proctored testing at an approved testing center in any geographic location.

Registration for a distance learning course is the same as for any other course. Consult the current Collin College schedule. Online courses require the same time commitment as on-site courses. Students should review the distance learning website (<http://online.ccccd.edu>) prior to enrolling.

## **EMERGING SCHOLARS**

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Recognition is the goal of the Emerging Scholars program at Collin College. Each year, professors identify students who excel and show outstanding scholarship potential and recommend them for recognition as Emerging Scholars. The achievements of students who are acknowledged as Emerging Scholars serve as benchmarks for success among their peers – a leadership role. Thus, Emerging Scholars assume service roles by assisting their peers as tutors in mathematics, science, writing, language labs, and other areas. Collin College Emerging Scholars have gone on to become solid examples of academic excellence. In the past, selected Emerging Scholars have received scholarships to attend The University of Texas at Dallas or to continue their education at Collin College.

## **EXPERIENTIAL LEARNING LABS**

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

### **American Sign Language and Interpreting Laboratories**

The American Sign Language (ASL) Laboratory is designed to simulate, as close as possible, a deaf culture environment on a college campus. The college employs approximately 10 native, or near-native, ASL language models who work with students to develop culturally appropriate behavior, second language acquisition and interpreting skills with continuous language exposure. The ASL Laboratory is located at the Spring Creek Campus in Room BB108. The Interpreting Laboratory is at the Spring Creek Campus in Room BB221. Hours of operation are posted outside the lab each semester.

## **Computer Writing Classroom**

Several sections of ENGL 1301 and ENGL 1302 are taught in computer classrooms located at the Central Park, Preston Ridge and Spring Creek campuses. Students in these classes have access to a word processor, the Internet and an HTML editor.

## **Math Labs**

The Math Labs assist Collin College students enrolled in developmental mathematics, college-level mathematics and natural science courses that have mathematics-based assignments. The staff includes faculty, lab instructors and tutors. Students may use videos, graphing calculators and computers to complete homework assignments. Hours for drop-in assistance vary and are posted at each campus.

## **Writing Centers**

The Collin College Writing Centers provide a place for students to seek advice on writing assignments in courses across the curriculum. Each center's primary purpose is to help students strengthen their writing skills by guiding them through the various stages of the writing process.

Writing Centers are located at the Central Park, Preston Ridge and Spring Creek 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 (Central Park Campus, 972.548.6857; Preston Ridge Campus, 972.377.1576 or Spring Creek Campus, 972.881.5843) or visit the Writing Center homepage at [www.ccccd.edu/writingcenter](http://www.ccccd.edu/writingcenter).

Students may access the online service (Online Writing Lab) by going to the Writing Center homepage and clicking on "Online Writing Lab."

## **FITNESS CENTERS**

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A major emphasis of the Physical Education Department at Collin College is to encourage lifetime fitness. Students may use the Fitness Centers at the Central Park, Preston Ridge or Spring Creek campuses during the times posted.

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

The Preston Ridge Campus Fitness Center consists of a gymnasium, a dance studio, a weight training room, and locker room facilities.

The Spring Creek Campus Fitness Center consists of the main gymnasium with a rubber running track, a weight training room, two dance studios, four racquetball courts, locker room facilities, twelve lighted tennis courts and use of the Oak Point Recreation Center natatorium (Monday-Friday, 8 a.m.-4 p.m.).

Collin County residents who are not enrolled in classes at the college will have the opportunity to take advantage of these facilities by paying a membership fee. For further information and hours of operation, contact the Fitness Center at Central Park Campus-E121, 972.548.6891; Preston Ridge Campus-A110, 972.377.1758 or Spring Creek Campus-A100, 972.881.5848.



## INTERCOLLEGIATE ATHLETICS

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The college offers intercollegiate athletic programs in men's and women's basketball and men's and women's tennis. These teams are affiliated with the National Junior College Athletic Association (NJCAA) and participate in the North Texas Junior College Athletic Conference (NTJCAC) and Region V events which may lead to national competition. To participate in intercollegiate athletic programs at Collin College, students should contact the Director of Athletics at 972.881.5888 for more information.

## LEARNING COMMUNITIES

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Learning communities offer a unique format for students to take general education courses. This innovative approach to learning blends two or more disciplines into a single course with a common theme or central question. The class is team-taught by professors representing each area of study. The extended time spent together and involvement in a collaborative learning environment forms a community-like atmosphere among students and faculty.

The blending of disciplines and the restructuring of students' time, credit and learning experiences fosters more explicit intellectual connections between students, between students and their faculty and between students and their community. Students in learning communities apply concepts to the world around them and exhibit commitment and interest in civic engagement.

Collin's Learning Communities program has been recognized by the Fund for the Improvement of Post-Secondary Education (FIPSE) and the Pew Charitable Trust. In collaboration with Service-Learning, the Learning Communities program received the national Bellwether Award for academic excellence. For more information on learning communities courses currently offered, visit [www.ccccd.edu/learningcomm](http://www.ccccd.edu/learningcomm).

## LIBRARIES

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Three Libraries, located on the Central Park, Preston Ridge and Spring Creek campuses, embody the college's commitment to academic excellence. Collin College's Board of Trustees, administration and its surrounding communities strongly support the three libraries' provision of services and resources to enhance student learning and faculty scholarship.

### On-Site Services

Each library facility consists of a library and associated academic support services. Reference librarians provide quick reference or in-depth research assistance at the reference desk. Librarians work closely with faculty members to deliver customized classes related to specific assignments and instructional objectives. Individual students are also encouraged to make appointments with reference librarians for one-on-one consultations. Traditional library services, such as course reserves and interlibrary loan, are available at each library. The library catalog system allows students to locate and request books from any campus.

### Services for Off-Campus Students

Many library resources and services are available via CougarWeb. Electronic reserves, e-mail reference, the library catalog, scholarly databases, full-text electronic journals, ebooks and library instruction are among the web-based services that benefit both distance learners and off-campus students. Visit the Library tab on CougarWeb for more information about services and resources.

### Special Services

Adaptive equipment for the visually impaired is available for student use at each library. Training on the use of the equipment is by appointment with the Access Office.

The Consumer Health Information Center, located at the Central Park Campus Library, offers faculty, staff, students and community members an extensive collection of materials on a wide range of medical conditions. Materials are selected to be accurate, reliable and useful to laypersons wishing to manage their own health care, assist their loved ones or conduct academic research on health topics. Skilled and experienced librarians are available to assist in the use of this special collection.

### On-Site Collections

The libraries offer faculty and students a comprehensive selection of books, journals and media items in all formats. Selection of library materials is based on relevance to the courses taught at the college. Among the most popular parts of the libraries' collections are the self-paced instructional multimedia CDs on office applications, test preparation and programming. The collections of libraries nationwide may be accessed through interlibrary loan. Faculty members place course reserves at the checkout desk for in-library use or make them available via the library's web-based electronic reserves system.

### Electronic Collections

Millions of full-text documents, articles, reference works, images, and ebooks are available from the many premium electronic collections licensed by the library for faculty and student use. Each library provides a computer area for use in conducting research using the electronic collections. Electronic collections are also available from off-campus computers via CougarWeb. Reference librarians are happy to consult on the choice of electronic resources for a particular research assignment. Visit the Library tab on CougarWeb for a complete list of electronic resources.

### Facilities

Collin College's Preston Ridge Campus was enhanced in 2005 by the opening of a 50,000 square foot library, while a similar new library at Central Park Campus is scheduled to open in 2009. The Spring Creek Campus houses a 60,000 square foot library. Each library provides a variety of study settings for student use. Quiet individual study and group collaboration are accommodated, as are individual and group media viewing and listening.

## **SERVICE-LEARNING**

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Collin College's award-winning Service-Learning program seeks to engage individuals in organized activities that combine both academic learning and community-based service. This unique experience strengthens academic, social and practical skills; creates a sense of civic responsibility; and fosters a richer, deeper sense of connection to the community.

### **Service-Learning:**

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

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

Collin College's Service-Learning program received the Campus Compact National Center for Community Colleges Collaboration Award, the nation's highest honor for service-learning programs in community colleges. National Campus Compact has recognized Collin College's Service-Learning program as a model of exemplary civic engagement practices. The Service-Learning program also received the national Bellwether Award in collaboration with the Learning Communities program. For more information about Service-Learning, visit [www.ccccd.edu/servicelearning](http://www.ccccd.edu/servicelearning).

## **STUDENT LEADERSHIP ACADEMY (SLA I AND II)**

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POTENTIAL – "The possibility, capability and capacity for growth" captures the spirit of the Student Leadership Academy. The academy offers two semester-long courses (LEAD 1301 and LEAD 2301) designed to promote leadership practices that foster teamwork and integrity in personal and professional development through scholarship and service.

Student Leadership Academy I (LEAD 1301): Introduction to Leadership Theory provides an opportunity for students to apply theoretical and practical concepts of leadership. Topics in SLA I include: communication/ leadership styles, leading and diversity, visioning and strategic planning, relationship building and group dynamics, wellness and stress management, and problem solving and decision-making. In addition, students develop cumulative portfolios, deliver presentations and work in teams. Guest speakers from business, industry and academia share their leadership experiences and the qualities they seek in potential leaders.

Student Leadership Academy II (LEAD 2301): Advanced Leadership Theory is an expanded leadership opportunity for students with a desire to explore their unlimited potential. This course is designed to further leadership practices and explore the

significance of teamwork and integrity. Topics in SLA II include: an in-depth study of the nature, theories, personal side, power and influence of leadership; contingency approaches; leading in crisis; the mind, heart and morality of leadership; followership; organizational design and politics and leading change.

The leadership courses can be taken as stand alone or in any order. Students who have at least a 2.5 cumulative GPA, a desire to work hard and an interest in exploring their leadership potential are invited to fill out an application. Applications are available from the Center for Scholarly & Civic Engagement (Spring Creek Campus, Room F105) or online at [www.ccccd.edu/sla](http://www.ccccd.edu/sla). For more information, call 972.881.5900.

## **SPECIAL SERVICE PROGRAMS**

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### **Collin County Law Enforcement Academy**

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

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

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

### **Fire Protection Training**

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

Students can earn state certifications as: Basic Firefighter, Driver/Operator, Fire Officer, Fire Investigator, Hazardous Materials Technician, Fire Inspector and Fire Instructor.

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

## Teacher Certification Program

Collin College's Teacher Certification Program (TCP) is accredited by the Texas Education Agency and offers training to those who are interested in becoming an elementary, middle, or high school teacher. After successfully completing this program and passing the required state exams, individuals will be certified to teach in Texas public schools. To qualify for the TCP, applicants must hold a bachelors degree and attend either an information session or an individual advising appointment. There is a formal application process and acceptance to the program is required to enroll. Flexible training schedules are offered. For more information about teacher certification, please call the Center for Teaching, Learning, and Professional Development at 972-377-1062 or visit their website at [www.ccccd.edu/teachered](http://www.ccccd.edu/teachered).

## STELLAR STUDENTS

A Stellar Student is a Developmental Education student who has demonstrated academic performance, academic promise and outstanding character. Each year, professors identify students who excel and show outstanding potential for recognition as Stellar Students. A reception is held each spring to recognize deserving students.

## TRANSFER PROGRAMS

The ultimate goal at Collin College is to produce educated and productive students, knowledgeable in their chosen field of study. As part of Collin College's commitment to transfer students, the college has partnered with various colleges and universities to establish transfer articulation agreements, special pre-admission agreements and degree plans that provide students access to and linkages with their baccalaureate degree-granting institutions. Not only do these partnerships allow courses to transfer from one institution to another without misrepresentation or loss of credit – they foster a more confident and successful student.

### Transfer Resources at Collin College

Transfer services and resources are available to Collin College students to help ensure easy transfer of course credits from Collin to the college or university of their choice. Some of the resources include individual assistance from academic advisors, the TransferU website (<http://transferu.ccccd.edu>), transfer fairs and college representative visits.

### Academic Advisors

Academic advisors help students define short- and long-term transfer goals and can assist with freshman and sophomore course selection. Students planning to transfer Collin College coursework to another college or university should contact an academic advisor. Students planning to earn associate degrees are also encouraged to contact an academic advisor. Collin College academic advisors are located at each campus in the Student Development Center.

## Transfer Information/Resource Website

Collin College's transfer information/resource website, <http://transferu.ccccd.edu>, provides students varied services which include:

- Collin College course equivalencies for a variety of colleges and universities.
- Degree plans and transfer guides for colleges and universities.
- A directory listing addresses, phone numbers, application deadlines and transfer admission requirements for the "most-requested" transfer colleges and universities.
- Transfer scholarship information.
- Frequently asked questions.
- Transfer tips.
- A schedule for college representative visits and transfer fairs.
- General transfer of credit information.
- Links to the Texas Common Application, the Texas Higher Education Coordinating Board (THECB), College for Texans and the Texas Common Course Numbering System (TCCNS).
- Many of the website resources, in addition to the following reference books and publications, are also available in the Academic Advising Department located at Central Park, Preston Ridge and Spring Creek campuses.
  - *College Handbook*
  - *College Cost and Financial Aid Handbook*
  - *Index of Majors and Graduate Degrees*
  - *International Student Handbook*
  - *Scholarship Handbook*
  - Library of catalogs for Texas and out-of-state colleges and universities

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

### Tips for Transfer Students

- Students should start planning for transfer early in their college career. Seek individual assistance from a Collin College academic advisor.
- Students who know their major can get transfer guides/2+2 guides from Collin College's transfer website (<http://transferu.ccccd.edu>) or Collin College academic advisors. If a guide is not available, compare the Collin College Catalog requirements and the selected college or university catalog for requirements in the major and check for equivalencies online or with an academic advisor.
- Students who have not made a choice of a major should take core curriculum courses from the associate of arts degree (see page 53) if leaning toward a liberal arts education and core curriculum courses from the associate of science degree (see page 53-54) if leaning toward a scientific or mathematical education.

- Shop around to find the college and program – consider the following: academic reputation, student population, public or private and location. Include a campus visit in your plans.
- Check with the transfer college or university for deadlines and fees and make sure to meet all deadlines. Keep detailed records of all contacts and make copies of all documents sent to the college or university.
- Check with the college/university for GPA information. A minimum GPA of 2.0 (a “C” average) is required at most colleges and universities for admission to the college.
- Admission to certain programs and/or specific majors may vary greatly from the college admission GPA requirement.
- Generally, only credits (semester hours) transfer; grade point average (GPA) is used for admission to the college/university.
- Many colleges and universities offer transfer orientation – attend if available.
- Get involved – find an organization that sounds interesting and join the fun.

For more details and tips, visit the TransferU website at <http://transferu.ccccd.edu/tips.html>.

### **Pre-Admission Partnerships**

*Austin College*  
*Baylor University*  
*Southern Methodist University*  
*Texas A&M University*  
*Texas A&M University-Commerce*  
*Texas Tech University*  
*Texas Woman’s University*  
*The University of Texas at Dallas*  
*University of North Texas*

Pre-admission partnerships allow qualified Collin College transfer students the opportunity to complete freshman and sophomore requirements for Austin College, Southern Methodist University, Texas A&M University, Texas A&M University-Commerce, Baylor University, Texas Tech University, Texas Woman’s University, the University of North Texas, or The University of Texas at Dallas while enrolled at Collin College.

Pre-admission partnership agreements will help reduce the time to earn a degree, making college more affordable and accessible. Students complete the first two years of their bachelor’s degrees, pay Collin College’s tuition rates and are guaranteed admissions to the partner university if minimum requirements are met.

These pre-admission partnerships include A&M, A&M Commerce, Austin College, SMU, Texas Tech, TWU, Baylor, UNT and UT Dallas student privileges, such as access to the libraries as well as cultural and athletic events, to Collin College students.

For more information about pre-admission partnerships, please call 972.985.3734 or visit <http://transferu.ccccd.edu/ub.html>.

### **Common Course Numbering**

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

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

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

### **Guarantee for Transfer Credit**

Collin College guarantees to its students who have met the requirements for its Associate of Arts, Associate of Arts in Teaching or Associate of Science degrees and students who have met the 60 credit-hour transfer plan the transferability of those course credits to the Texas colleges and/or universities that participate in the Guarantee for Transfer Credit program. This guarantee is designed for Collin College students who have made firm decisions about their major and the transfer college or university to which they plan to transfer, and who have followed a written transfer guide for that transfer institution.

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

### **Resolution of Transfer Disputes**

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

The Texas Higher Education Coordinating Board has established procedures (see below) to be followed when transfer credit for lower-division courses listed in the Academic Course Guide Manual (ACGM) is disputed. The individual courses covered by this procedure are defined in the coordinating board’s guide entitled, “Transfer of Credit Policies and Curricula.”

### **Procedures for Resolution of Transfer Disputes**

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

If an institution of higher education does not accept course credit earned by a student at another institution of higher education, the receiving institution shall give written notice to the student and to the sending institution that transfer of the course is denied. The receiving institution will also give the reasons for denying credit for a particular course or set of courses at the request of the sending institution.



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

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.

## **WEEKEND COLLEGE**

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Juggling the demands of work and home life can seem daunting; however, many adults have discovered that they can successfully balance work, family and college through a unique program designed specifically for working adults – the Weekend College. Collin College's Weekend College offers alternatives for those unable to attend college during the traditional time frame. Weekend College provides the opportunity to complete the entire core curriculum for the Associate of Arts (AA), Associate of Arts in Teaching (AAT) and Associate of Science (AS) degrees on Friday evenings, Saturday mornings, Saturday afternoons, Sunday afternoons or any combination thereof without interrupting the work week. Courses are offered in express (eight-week courses or three-weekend courses) and standard sixteen-week formats.

Students who wish to earn an AA, AAT or AS degree and transfer to a four-year college or university can select general education courses that will apply to a bachelor's degree.

Developmental courses that improve the basic skills of students whose academic foundation needs strengthening are available. A number of applied science and technical/workforce programs designed to prepare students for employment and update their technical skills are also available.

For additional information, please contact the Weekend College Office at 972.881.5801, visit the Weekend College website at [www.ccccd.edu/studentservices/weekend/index.html](http://www.ccccd.edu/studentservices/weekend/index.html), or correspond via e-mail to [weekendcollege@cccd.edu](mailto:weekendcollege@cccd.edu)

# ACADEMIC DEGREES, ASSOCIATE OF ARTS, ASSOCIATE OF ARTS IN TEACHING, AND ASSOCIATE OF SCIENCE



## **GETTING STARTED AT COLLIN COLLEGE**

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Collin offers a variety of plans designed to prepare students for a college or university degree. Some options include pursuing an associate degree, completing the core curriculum or a field of study or beginning coursework in a pre-professional program.

## **ASSOCIATE OF ARTS (AA), ASSOCIATE OF ARTS IN TEACHING (AAT) AND ASSOCIATE OF SCIENCE (AS) DEGREES**

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The Associate of Arts, Associate of Arts in Teaching and Associate of Science degrees are designed for students planning to transfer course credits to a baccalaureate degree program at a college or university. The curriculum suggested in this catalog will satisfy the requirements of most colleges and universities.

Students should visit with an academic advisor to ensure that they take the correct courses for their Associate of Arts, Associate of Arts in Teaching or Associate of Science degree program at Collin in addition to the major for their chosen transfer college or university. The selection of science, math and elective credit courses is often based on the requirements of the specific transfer college or university.

## **CORE CURRICULUM**

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The Texas Education Code, as a result of Senate Bill 148, requires all public colleges and universities to have a core curriculum. Core curriculum is defined as "the curriculum in the liberal arts, humanities, sciences, and political, social and cultural history that all undergraduate students of a particular Texas institution of higher education are required to complete before receiving an associate or bachelor's degree."

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

The core curriculum is predicated on a series of basic intellectual competencies - reading, writing, speaking, listening, critical thinking and computer literacy - that are essential to the learning process in any discipline. Although students can be expected to come to college with some experience in exercising

these competencies, they often need further instruction and practice to meet college standards and, later, to succeed in both their major field of academic study and their chosen career or profession. Collin will designate core curriculum courses completed by a student on the official Collin transcript. If a student satisfies all component areas, the message “Core Curriculum Completed” will appear on the transcript. Students who make substitutions in the core curriculum may not be core complete. Contact a degree plan/graduate associate for more information.

Students should visit with an academic advisor to ensure that they take the correct courses for their Associate of Arts, Associate of Arts in Teaching or Associate of Science degree program at Collin in addition to the major for their chosen transfer college or university.

**The AA and AS core curricula follow:**

## **ASSOCIATE OF ARTS CORE CURRICULUM**

**Communications** **9 credit hours**

**English** **6 credit hours**

ENGL 1301 and 1302

**Speech – Select one course:** **3 credit hours**

SPCH 1311, 1315, or 1321

**Humanities** **3 credit hours**

Select one course:

ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, or 2343

FREN 2303 or 2304

HUMA 1301

PHIL 1301, 1304, 2303, 2306, 2307, or 2321

SPAN 2321 or 2322

**Mathematics** **3 credit hours**

Select one course:

MATH 1314, 1316, 1324, 1325, 1332<sup>2</sup>, 1342, 1350, 1351, 1414, 2305, 2312, 2318, 2320, 2413, 2414, 2415, 2417, or 2419

**Natural Sciences** **8 credit hours**

Select two courses (course sequence recommended):

BIOL 1406, 1407, 1408, 1409, 1411, 2401, 2402, 2404, 2406, 2416, 2421, or 2428

CHEM 1405, 1407, 1411, 1412, 2401, 2423, or 2425

ENVR 1401 or 1402

GEOL 1401, 1402, 1403, 1404, 1405, 1445, or 1447

PHYS 1401, 1402, 1403, 1404, 1405, 1415, 2425, or 2426

**Social/Behavioral Sciences** **3 credit hours**

Select one course:

ANTH 2346 or 2351

ECON 2301 or 2302

PSYC 2301

SOCI 1301

**Social Sciences** **12 credit hours**

Legislative Mandate – Students must take BOTH of the following courses:

GOVT 2301 (Texas) and GOVT 2302 (U.S.)

Legislative Mandate – Students must take TWO of the following courses:

HIST 1301, 1302, or 2301

**Visual/Performing Arts**

**3 credit hours**

Select one course:

ARTS 1301, 1303, or 1304

DANC 2303

DRAM 1310, 2361, or 2362

MUSI 1306 or 1307

**Institutional Options**

**4 credit hours**

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

COSC 1300 or BCIS 1305<sup>3,4</sup> (or higher level computer transfer course as determined by student's area of emphasis)

Any PHED/DANC Activity Course (1 credit hour) or

PHED 1338

**AA Core Curriculum**

**45 credit hours**

**AA Graduation Requirement\***

**3 credit hours**

**Electives/Areas of Emphasis**

**12 credit hours minimum**

**Total**

**60 credit hours minimum**

**AAT Graduation Requirements Complete the AA core curriculum**

Complete 16-18 credit hours in required education courses and content area teaching fields/academic disciplines. See pages 67-68.

NOTES:

- 1 Some courses in the core curriculum may require prerequisites. Please check course descriptions in the back of this catalog.
- 2 Check with academic advising regarding transferability. Some majors or institutions may require a higher-level mathematics course.
- 3 It is possible for students to test out of COSC 1300 (Computer Science) and BCIS 1305 (Computer Information Systems); please contact the appropriate department chair for more information.
- 4 Students planning to go further in a business-related area of study should take BCIS 1305.

**To complete an Associate of Arts degree:**

\* One sophomore Literature course (3 credit hours) is required for graduation.

## **ASSOCIATE OF SCIENCE CORE CURRICULUM**

**Communications**

**9 credit hours**

**English**

**6 credit hours**

ENGL 1301 and 1302

**Speech – Select one course:**

**3 credit hours**

SPCH 1311, 1315, or 1321

**Humanities**

**3 credit hours**

Select one course:

ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, or 2343

FREN 2303 or 2304

HUMA 1301

PHIL 1301, 1304, 2303, 2306, 2307, or 2321

SPAN 2321 or 2322

**Mathematics**

**3 credit hours**

Select one course:

MATH 1314, 1316, 1342, 1414, 2305, 2312, 2318 2320, 2413, 2414, 2415, 2417, or 2419



### **Natural Sciences** **8 credit hours**

Select two courses (course sequence recommended):

BIOL 1406, 1407, 1411, 2401, 2402, 2406, 2416, 2421, or 2428  
CHEM 1411, 1412, 2401, 2423, or 2425  
ENVR 1401 or 1402  
GEOL 1403 or 1404  
PHYS 1401, 1402, 2425, or 2426

### **Social/Behavioral Sciences** **3 credit hours**

Select one course:

ANTH 2346 or 2351  
ECON 2301 or 2302  
PSYC 2301  
SOCI 1301

### **Social Sciences** **12 credit hours**

Legislative Mandate - Students must take BOTH of the following courses:

GOVT 2301 (Texas) and GOVT 2302 (U.S.)

Legislative Mandate - Students must take TWO of the following courses:

HIST 1301, 1302, or 2301

### **Visual/Performing Arts** **3 credit hours**

Select one course:

ARTS 1301, 1303, or 1304  
DANC 2303  
DRAM 1310, 2361, or 2362  
MUSI 1306 or 1307

### **Institutional Options** **4 credit hours**

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

COSC 1300 or BCIS 1305<sup>2,3</sup> (or higher level computer transfer course as determined by student's area of emphasis)  
Any PHED/DANC Activity Course (1 credit hour) or  
PHED 1338

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

### **AS Graduation Requirement\*** **3 credit hours**

### **Electives/Areas of Emphasis** **12 credit hours minimum**

### **Total** **60 credit hours minimum**

### **AAT Graduation Requirements Complete the AS core curriculum**

Complete 16-18 credit hours in required education courses and content area teaching fields/academic disciplines. See pages 67-68.

### **NOTES:**

- 1 Some courses in the core curriculum may require prerequisites. Please check course descriptions in the back of this catalog.
- 2 It is possible for students to test out of COSC 1300 (Computer Science) and BCIS 1305 (Computer Information Systems); please contact the appropriate department chair for more information.
- 3 Students planning to go further in a business-related area of study should take BCIS 1305.

### **To complete an Associate of Science degree:**

- \* One additional mathematics course (3 credit hours) is required for graduation.

## **AA, AS, and AAT Degree Requirements Review**

**The Associate of Arts and Associate of Science degrees are awarded to students who meet the following requirements along with graduation requirements.**

1. Earn a minimum of 60 credit hours (excluding developmental credit).
2. Complete the core curriculum of 45 credit hours.
3. Complete a minimum of 12 credit hours of recommended electives/areas of emphasis. See pages 55-76.
4. Complete the additional 3-credit hour course required for the Associate of Arts or Associate of Science degree.
5. Earn a minimum of 18 credit hours in residency at Collin.
6. Earn a minimum cumulative GPA of 2.0.
7. Complete TSI requirements.

**The Associate of Arts in Teaching degree is awarded to students who meet following requirements (in addition to requirements 1, 2, 5, 6, and 7 listed above).**

1. Complete the AA or AS core curriculum of 45 credit hours.
2. Complete 16-18 credit hours in required education courses and content area teaching fields/academic disciplines. See pages 67-68.

## **Choosing a Catalog Year**

Students who plan to transfer to a college or university have a choice to make regarding their requirements for graduation.

Specifically, they may choose the catalog year under which they wish to graduate. This choice is subject to restrictions that are outlined in the college or university catalog. Students should consult their Collin academic advisor or the catalog of their choice to learn about any limitations.

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

## **Fields of Study**

Mandated in Senate Bill 148, the Fields of Study (FOS) curricula are intended to facilitate the transferability of lower division courses among Texas public colleges and universities.

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



## AREAS OF EMPHASIS FOR THE ASSOCIATE OF ARTS DEGREE

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

### ACCOUNTING

Students who are planning to major in Accounting as part of a bachelor's degree in Business at a four-year university should refer to Business on pages 56-57. Students should take

ACCT 2301 and ACCT 2302. ACCT 2301 is a prerequisite for ACCT 2302.

### AMERICAN SIGN LANGUAGE (DEAF EDUCATION )

60 credit hours

#### Department Chair:

Henry Whalen . . . . . SCC-B135 . . . . . 972.881.5152

#### Academic Advisor:

Caryn Hawkins . . . . . PRC-F133 . . . . . 972.377.1655

The Associate of Arts degree with an emphasis in American Sign Language (Deaf Education) provides general academic courses and electives that enable students who intend to major in Deaf Education or Deaf Studies to transfer to a college or university.

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

Contact department chair regarding the 2+2 Program with Texas Woman's University.

#### Career Opportunities

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

#### AA CORE CURRICULUM

45 credit hours

#### Additional Graduation Requirement

3 credit hours

See page 53.

#### Recommended Electives

12 credit hours

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

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

SGNL 2301 American Sign Language (ASL): Intermediate I . . . . . 3

SGNL 2302 American Sign Language (ASL):

Intermediate II<sup>1</sup> . . . . . 3

SLNG 1311 Fingerspelling and Numbers<sup>1,\*</sup> . . . . . 3

SLNG 1447 Deaf Culture\* . . . . . 4

EDUC 1301 Introduction to the Teaching Profession<sup>2</sup> . . . . . 3

EDUC 2301 Introduction to Special Populations<sup>2</sup> . . . . . 3

1 Recommended for students pursuing degrees in Deaf Studies

2 Recommended for students pursuing degrees in Deaf Education

\* Students should verify course transferability with a Collin academic advisor and/or the college or university that they plan to attend.

### ANTHROPOLOGY

60 credit hours

#### Department Chair:

Wendy Gunderson . . . . . PRC-F213 . . . . . 972.377.1536

#### Academic Advisor:

Kari Ford . . . . . SCC-G146 . . . . . 972.516.5069

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

#### Career Opportunities

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

#### AA Core Curriculum

45 credit hours

#### Additional Graduation Requirement

3 credit hours

See page 53.

#### Recommended Electives 12 credit hours

ANTH 2301 Physical Anthropology . . . . . 3

ANTH 2302 Introduction to Archaeology . . . . . 3

ANTH 2346 General Anthropology . . . . . 3

ANTH 2351 Cultural Anthropology . . . . . 3

ANTH 2389 Academic Co-op Anthropology . . . . . 3

BIOL 2404 Human Anatomy and Physiology Basics . . . . . 4

BIOL 2416 Genetics . . . . . 4

GEOG 1302 Cultural Geography . . . . . 3

SOCI 1301 Introduction to Sociology . . . . . 3

SOCI 2319 Minority Studies . . . . . 3

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

# ART

60 credit hours  
*Also see Photography*

**Department Chair:**

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

**Academic Advisor:**

John Ciccio . . . . . SCC-G148 . . . . .972.881.5563  
 Torrey West . . . . . PRC-F132 . . . . .972.377.1513

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

**Career Opportunities**

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

**AA Core Curriculum** **45 credit hours**  
**Additional Graduation Requirement** **3 credit hours**  
*See page 53.*

<b>Recommended Electives</b>	<b>12 credit hours</b>
ARTS 1301 Art Appreciation . . . . .	3
ARTS 1303 Art History I . . . . .	3
ARTS 1304 Art History II . . . . .	3
ARTS 1311 Design I (Basic 2-D) . . . . .	3
ARTS 1312 Design II (Basic 3-D) . . . . .	3
ARTS 1316 Drawing I . . . . .	3
ARTS 1317 Drawing II . . . . .	3
ARTS 2311 Introduction to Color/Painting . . . . .	3
ARTS 2316 Painting I . . . . .	3
ARTS 2317 Painting II . . . . .	3
ARTS 2323 Life Drawing I . . . . .	3
ARTS 2324 Life Drawing II . . . . .	3
ARTS 2326 Sculpture I . . . . .	3

ARTS 2327 Sculpture II . . . . .	3
ARTS 2333 Printmaking I . . . . .	3
ARTS 2334 Printmaking II . . . . .	3
ARTS 2341 Art Metals I . . . . .	3
ARTS 2342 Art Metals II . . . . .	3
ARTS 2346 Ceramics I . . . . .	3
ARTS 2347 Ceramics II . . . . .	3
ARTS 2348 Digital Art I . . . . .	3
ARTS 2349 Digital Art II . . . . .	3
ARTS 2366 Watercolor I . . . . .	3
ARTS 2367 Watercolor II . . . . .	3
ARTS 2389 Academic Co-op Arts/Photography . . . . .	3

# BUSINESS

60 credit hours  
**Department Chair:**

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

**Academic Advisor:**

Tom Bailey. . . . . PRC-F131 . . . . .972.377.1771  
 Debra Lamb. . . . . SCC-G151 . . . . .972.881.5165

The Associate of Arts degree with an emphasis in Business prepares students for transfer to colleges and universities that offer bachelor's degrees in various areas of business. Students interested in careers in business who are planning to major in accounting, business administration, finance, international business, management, or marketing should follow the Business Field of Study curriculum. The completed Field of Study will transfer to any Texas public college or university.

**AA Core Curriculum** **45 credit hours**  
**Additional Graduation Requirement** **3 credit hours**  
*See page 53.*

**Recommended Core Courses for Business Majors**

- Communications: SPCH 1321
- Institutional Option/Computer Science: BCIS 1305
- Mathematics: MATH 1324 or MATH 1314/1414
- Social/Behavioral Sciences: ECON 2301 or ECON 2302

<b>Field of Study</b>	<b>12 credit hours</b>
<b>Core courses</b>	
BCIS 1305 Business Computer Applications . . . . .	3
MATH 1325 Calculus for Business and Economics I <sup>1</sup> . . . . .	3
SPCH 1321 Business and Professional Speaking (preferred) . . . . .	3
<b>OR</b>	
SPCH 1315 Public Speaking I . . . . .	3
<b>Business Content Courses</b>	
ACCT 2301 Financial Accounting . . . . .	3
ACCT 2302 Managerial Accounting . . . . .	3
ECON 2301 Principles of Macroeconomics <sup>2</sup> . . . . .	3
ECON 2302 Principles of Microeconomics <sup>2</sup> . . . . .	3

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

**Recommended Electives**

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

BUSI 1301 Introduction to Business <sup>3</sup>	3
BUSI 2301 Business Law <sup>3</sup>	3
MATH 1342 Statistics <sup>3</sup>	3

- 1 Collin Prerequisite: MATH 1314, 1414, or 1324. Individual colleges and universities will determine their own prerequisite requirements.
- 2 Only one ECON course will fulfill the Social/Behavioral Sciences component of the Core.
- 3 Please check with the receiving college or university for transfer requirements.

**COMMUNICATION STUDIES**

60 credit hours

**Department Chair:**

Ceilidh Charleson-Jennings . SCC-B232	972.881.5182
Martha Tolleson . . . . . CPC-B252A	972.548.6843
Barbara Beverage . . . . . PRC-D174	972.377.1578

**Academic Advisor:**

Caryn Hawkins . . . . . PRC-F133	972.377.1655
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The Associate of Arts degree with an emphasis in Speech Communication gives students a broad background in communication competencies. Speech communication courses improve interpersonal communication skills and teach presentation techniques. Students taking courses in speech communication gain enhanced awareness of the impact communication skills have both in the personal and professional arenas. Both the traditional rhetorical approach (oral presentation) and the behavioristic approach (communication theory and skill) are reflected in speech communication course offerings.

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

**Career Opportunities**

The Associate of Arts degree with an emphasis in Speech Communication provides students with a solid foundation for careers that involve a high degree of interaction with the public. Occupations involving marketing research, conference, and special events planning, product/service demonstrations and sales are possible careers. The emphasis also offers the academic foundation to successfully complete a bachelor's degree at a college or university, and then to pursue a career in fields such as mass media, public relations, law, government, personnel, employee relations, and education.

**AA Core Curriculum**

**45 credit hours**

**Additional Graduation Requirement**

**3 credit hours**

See page 53.

**Recommended Electives**

**12 credit hours**

SPCH 1311 Fundamentals of Speech Communication	3
SPCH 1315 Public Speaking I	3
SPCH 1321 Business and Professional Speaking	3
COMM1307 Introduction to Mass Communication	3
COMM2331 Radio and TV Announcing	3
COMM2332 Radio/Television News	3

**COMMUNICATION FIELD OF STUDY**

60 credit hours

The Communication Field of Study (FOS) will lead to the Bachelor of Arts degree with special emphasis or concentration in General Communication/Communication Studies/Speech Communication/Speech and Rhetorical Studies/Organizational Communication.

The completed FOS will transfer to any Texas public college or university. The complete sub-area FOS curriculum will be applied toward the appropriate communication degree plan. Each college or university will accept at least 12 hours of course work with an institutional prerogative to accept 15 hours. Students must complete six hours in Competency Area 1 to gain historical, theoretical and/or analytical competency of the communication field. Students must also complete six hours in Competency Area 2 to demonstrate competency in writing/performance/production. Each course will only count toward one competency area. Students will be required to take additional courses at the receiving college or university to meet that institution's degree plan requirements.

**AA Core Curriculum**

**45 credit hours**

**Additional Graduation Requirement**

**3 credit hours**

See page 53.

**General Communication****Field of Study**

**12 credit hours**

**Competency Area**

**16 credit hours**

SPCH 1311 Fundamentals of Speech Communication <sup>1</sup>	3
SPCH 1318 Interpersonal Communication	3

**Competency Area 2**

**6 credit hours**

SPCH 1315 Public Speaking I <sup>1</sup>	3
SPCH 1321 Business and Professional Speaking <sup>1</sup>	3

- 1 Within the FOS, there are courses listed which will satisfy requirements for both the AA/AS Core Curriculum and the FOS.

**Mass Communication**

The Field of Study (FOS) in a mass communication-related sub-area will lead to the Bachelor of Arts degree with special emphasis or concentration in Advertising/Public Relations, Journalism/Mass Communication, or Radio and Television Broadcasting/Broadcast Journalism. The completed FOS in

a given sub-area will transfer to any Texas public college or university. The complete sub-area FOS curriculum will be applied toward the appropriate communication degree plan. Each college or university will accept at least 12 hours of course work with an institutional prerogative to accept 15 hours.

Students must complete six hours in Competency Area 1 to gain historical, theoretical, and/or analytical competency of the mass communication field. Students must also complete six hours in Competency Area 2 to demonstrate competency in writing/performance/production. Each course will only count toward one competency area. Students will be required to take additional courses at the receiving college or university to meet that institution's degree plan requirements.

**Field of Study** **12 credit hours**

Collin offers more than the minimum number of courses required for the FOS in some of the sub-areas below. Students may choose six hours from each competency area to satisfy the

FOS, or may take additional courses if the receiving institution agrees to accept them toward a 15-hour FOS. Check with a Collin academic advisor for assistance in selecting your courses.

**Advertising/Public Relations**

**Competency Area 1** **6 credit hours**

COMM1307 Introduction to Mass Communication	3
COMM2300 Media Literacy	3

**Competency Area 2** **6 credit hours**

COMM2332 Radio/Television News	3
COMM2339 Writing for Radio, TV, and Film	3

**Journalism/Mass Communication**

**Competency Area 1** **6 credit hours**

COMM1307 Introduction to Mass Communication	3
COMM2300 Media Literacy	3

**Competency Area 2** **select 6 credit hours**

COMM1316 News Photography I	3
COMM1317 News Photography II	3
COMM2332 Radio/Television News	3
COMM2339 Writing for Radio, TV, and Film	3

**Radio and Television Broadcasting/Broadcast Journalism**

**Competency Area 1** **select 6 credit hours**

COMM1307 Introduction to Mass Communication	3
COMM1335 Survey of Radio/Television	3
COMM2300 Media Literacy	3

**Competency Area 2** **select 6 credit hours**

COMM2331 Radio and TV Announcing	3
COMM2332 Radio/Television News	3
COMM2339 Writing for Radio, TV, and Film	3

**CRIMINAL JUSTICE**

60 credit hours

**Department Chair:**

David Marble ..... SCC-BB211 ..... 972.516.5051

**Academic Advisor:**

Kari Ford ..... SCC-G146 ..... 972.516.5069

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

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

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

**Career Opportunities**

Criminal Justice graduates are academically prepared for entry-level positions in law enforcement, court services, and corrections at the local, state, and federal levels of government.

Through classroom and laboratory experiences, students acquire the fundamental knowledge and skills necessary to understand the criminal justice system and its agencies, personnel and functions. Challenging career opportunities await graduates at all levels of government as:

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

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

**Additional Graduation Requirement** **3 credit hours**

See page 53.

**FIELD OF STUDY 15 credit hours**

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

**RECOMMENDED ELECTIVES** **12 credit hours**

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



## DANCE

60 credit hours

### Department Chair:

Tiffanee Arnold ..... SCC-AA145 ..... 972.881.5830

### Academic Advisor:

John Ciccio ..... SCC-G148 ..... 972.578.5563

Torrey West ..... PRC-F132 ..... 972.377.1513

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

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

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

For more information about the Dance Program, contact Tiffanee Arnold, chair of dance, at SCC-AA145, 972.881.5830 or tarnold@ccccd.edu.

### Career Opportunities:

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

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

### AA Core Curriculum

45 credit hours

### Additional Graduation Requirement

3 credit hours

See page 53.

### Recommended Electives

12 credit hours

DANC 1101 Dance Improvisation ..... 1  
DANC 1110 Tap Technique I ..... 1  
DANC 1111 Tap Technique II ..... 1  
DANC 1141 Ballet Technique I ..... 1  
DANC 1142 Ballet Technique II ..... 1  
DANC 1145 Modern Dance Technique I ..... 1

DANC 1146 Modern Dance Technique II ..... 1  
DANC 1147 Jazz Dance Technique I ..... 1  
DANC 1148 Jazz Dance Technique II ..... 1  
DANC 1151 Dance Performance I ..... 1  
DANC 1152 Dance Performance II ..... 1  
DANC 1201 Dance Composition ..... 2  
DANC 1212 Dance Practicum I ..... 2  
DANC 1213 Dance Practicum II ..... 2  
DANC 2141 Ballet Technique III ..... 1  
DANC 2142 Ballet Technique IV ..... 1  
DANC 2145 Modern Dance Technique III ..... 1  
DANC 2146 Modern Dance Technique IV ..... 1  
DANC 2147 Jazz Dance Technique III ..... 1  
DANC 2148 Jazz Dance Technique IV ..... 1  
DANC 2151 Dance Performance III ..... 1  
DANC 2152 Dance Performance IV ..... 1  
DANC 2210 Projects in Dance Performance and Repertory I ..... 2  
DANC 2211 Projects in Dance Performance and Repertory II ..... 2  
DANC 2212 Dance Practicum III ..... 2  
DANC 2213 Dance Practicum IV ..... 2  
DANC 2301 Topics in Dance Technique ..... 3  
DANC 2303 Dance Appreciation ..... 3  
DANC 2389 Academic Co-Op Dance ..... 3

## ECONOMICS

Students who are planning to major in economics as part of a bachelor's degree in business at a four-year university should refer to Business on pages 56-57. Students wishing to major in economics as part of a bachelor's degree in economics at a four-year university should take the AA Core Curriculum and ECON 2301 and ECON 2302.

## EDUCATION

See Associate of Arts in Teaching (AAT) (page 67) and the Child Development Program (page 84)

## ENGLISH

60 credit hours

### Department Chair:

Shirley McBride ..... SCC-B108 ..... 972.881.5675

Martha Tolleson ..... CPC-B252A ..... 972.548.6843

Barbara Beverage ..... PRC-D174 ..... 972.377.1578

### Academic Advisor:

Caryn Hawkins ..... PRC-F133 ..... 972.377.1655

An emphasis in English promotes the development of writing skills, reasoning, and critical thinking. Composition and rhetoric courses focus on expository and persuasive writing including argumentation, logical thinking, and research. An integral part of each course is a lab component that is designed to help students identify weak areas in their writing, eliminate individual writing problems and thus strengthen their 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 an Academic Co-op course through Cooperative Work Experience to gain practical work experience.

### Career Opportunities

- Positions requiring writing skills
- Positions requiring editing/proofing skills
- Positions requiring critical thinking skills
- Positions requiring knowledge of the research process

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

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

**Additional Graduation Requirement** **3 credit hours**

See page 53.

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

ENGL 2307 Creative Writing I	3
ENGL 2308 Creative Writing II	3
ENGL 2311 Technical and Business Writing	3
ENGL 2322 British Literature I	3
ENGL 2323 British Literature II	3
ENGL 2327 American Literature I	3
ENGL 2328 American Literature II	3
ENGL 2332 World Literature I	3
ENGL 2333 World Literature II	3
ENGL 2342 Introduction to Literature I - Short Story and Novel	3
ENGL 2343 Introduction to Literature II - Poetry and Drama	3
ENGL 2351 Mexican-American Literature	3
XXXX x4xx Foreign Language Sequence I	4
XXXX x4xx Foreign Language Sequence II	4

## FRENCH

60 credit hours

### Department Chair:

Ana Giron . . . . . SCC-G215 . . . . . 972.881.5724

### Academic Advisor:

Caryn Hawkins . . . . . PRC-F133 . . . . . 972.377.1655

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

### Career Opportunities

When combined with further study beyond the associate degree, an emphasis in French may lead to careers in education, business, or government. In light of the opportunities presented

by the emergence of a common European market, the mastery of French and other European languages may lead to exciting career opportunities when combined with a business or marketing degree.

**AA Core Curriculum**

**45 credit hours**

**Additional Graduation Requirement**

**3 credit hours**

See page 53.

**Recommended Electives**

**12 credit hours**

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

1 Corequisites: must be taken simultaneously

2 Corequisites: must be taken simultaneously

## GEOGRAPHY

60 credit hours

### Department Chair:

Roger Ward . . . . . SCC-B115A . . . . . 972.516.5026

### Academic Advisor:

Kari Ford . . . . . SCC-G146 . . . . . 972.516.5069

Because our world is immersed in the Information Age and we have entered a period in human history marked by increasing globalization, it is important for students to be geographically literate. The Geography Program is designed to expand students' knowledge about the physical and cultural environments of the world and prepare them for a career in the global market.

### Career Opportunities

Students transferring into a college or university geography curriculum can prepare for diverse careers in urban planning, petroleum exploration, cartography (mapping), and corporate planning for expansion and development. Many universities require education majors to take a geography course as part of their degree.

**AA Core Curriculum**

**45 credit hours**

**Additional Graduation Requirement**

**3 credit hours**

See page 53.

**Recommended Electives**

**12 credit hours**

GEOG 1301 Physical Geography	3
GEOG 1302 Cultural Geography	3
GEOG 1303 World Regional Geography	3
ANTH 2351 Cultural Anthropology	3
HIST 2311 Western Civilizations I	3
HIST 2312 Western Civilizations II	3

PSYC 2301 General Psychology .....	3
XXXX x4xx Foreign Language Sequence I .....	4
XXXX x4xx Foreign Language Sequence II .....	4

## GERMAN

60 credit hours

### Department Chair:

Ana Giron ..... SCC-G215.....972.881.5724

### Academic Advisor:

Caryn Hawkins ..... PRC-F133 .....972.377.1655

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

### Career Opportunities

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

### AA Core Curriculum

**45 credit hours**

### Additional Graduation Requirement

**3 credit hours**

See page 53.

### Recommended Electives

**12 credit hours**

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

1 Corequisites: must be taken simultaneously

2 Corequisites: must be taken simultaneously

## GOVERNMENT

60 credit hours

### Department Chair:

David Marble ..... SCC-BB211 ..... 972.516.5051

Michael McConachie ... CPC-E221 .....972.548.6513

Wendy Gunderson ..... PRC-F213 .....972.377.1536

### Academic Advisor:

Kari Ford ..... SCC-G146.....972.516.5069

An Associate of Arts degree with an emphasis in Government is a stepping-stone to a liberal arts education. The second step is a bachelor's degree from a college or university. The Government Program features introductory courses in political

science and American and Texas politics. The courses emphasize contemporary political analysis, critical thinking, and hands-on experiential learning exercises.

### Career Opportunities

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

### AA Core Curriculum

**45 credit hours**

### Additional Graduation Requirement

**3 credit hours**

See page 53.

### Recommended Electives

**12 credit hours**

GOVT 2304 Introduction to Political Science .....	3
GOVT 2311 Mexican-American Politics .....	3
CRJ 1301 Introduction to Criminal Justice .....	3
ECON 2301 Principles of Macroeconomics .....	3
ECON 2302 Principles of Microeconomics .....	3
PHIL 2303 Introduction to Logic .....	3
PHIL 2306 Introduction to Ethics .....	3
PSYC 2301 General Psychology .....	3
XXXX x4xx Foreign Language Sequence I .....	4
XXXX x4xx Foreign Language Sequence II .....	4

## HISTORY

60 credit hours

### Department Chair:

Roger Ward ..... SCC-B115A.....972.516.5026

Michael McConachie ... CPC-E221 .....972.548.6513

Wendy Gunderson ..... PRC-F213 .....972.377.1536

### Academic Advisor:

Kari Ford ..... SCC-G146.....972.516.5069

The History Program is designed for students interested in completing an associate degree as well as students pursuing a bachelor's degree. The American survey history courses meet the state's requirement for six hours of American history. In addition to the survey courses, the program also includes classes in Western Civilizations, History of Texas, History of Women in America, Survey of the History of American Religion, and Introduction to America and the World in the Twentieth Century.

### Career Opportunities

Background acquired by students majoring in history prepares them for careers in a variety of fields such as journalism, law, politics, social work, television, radio, etc. A degree in history is not only beneficial to students seeking a career as a writer or teacher, but also will provide career opportunities in such adjacent fields as public history, museum curator, archivist, research associate for public and private agencies and in developing fields like environmental historian for state agencies, contract work for legal firms and in the areas of computer/video/film documentaries.

**AA Core Curriculum** **45 credit hours**  
**Additional Graduation Requirement** **3 credit hours**  
*See page 53.*

<b>Recommended Electives</b>	<b>12 credit hours</b>
HIST 2301 History of Texas .....	3
HIST 2311 Western Civilizations I .....	3
HIST 2312 Western Civilizations II .....	3
HIST 2327 Mexican-American History I .....	3
HIST 2328 Mexican-American History II .....	3
HIST 2381 African-American History .....	3
ECON 2301 Principles of Macroeconomics .....	3
ECON 2302 Principles of Microeconomics .....	3
PHIL 1301 Introduction to Philosophy .....	3
PHIL 2303 Introduction to Logic .....	3
PSYC 2301 General Psychology .....	3
SOCI 1301 Introduction to Sociology .....	3
XXXX x4xx Foreign Language Sequence I .....	4
XXXX x4xx Foreign Language Sequence II .....	4

## **MEXICAN-AMERICAN STUDIES FIELD OF STUDY**

66 credit hours

### **Field of Study Contact:**

Lisa Roy Davis ..... SCC-H235.....972.578.5511

### **Academic Advisor:**

Caryn Hawkins ..... PRC-F133 .....972.377.1655

The Mexican-American Field of Study will lead to the Bachelor of Arts degree with special emphasis or concentration in Mexican-American studies in literature, history, politics, culture, Spanish for native speakers, and fine arts appreciation. The completed FOS will transfer to, and be applied toward, the completion of the appropriate degree plan at any Texas public college or university. Each college or university will accept at least 18 hours of applicable lower division coursework. Additional FOS academic opportunities may include Learning Communities, Field Studies, etc.

**AA Core Curriculum** **45 credit hours**  
**Additional Graduation Requirement** **3 credit hours**  
*See page 53.*

**Field of Study Courses** **18 credit hours**

### **Introduction:**

HUMA 1305 Introduction to Mexican-American Studies ..... 3

### **History:** **select 3 credit hours**

HIST 2327 Mexican-American History I ..... 3

HIST 2328 Mexican-American History II ..... 3

### **Government:**

GOVT 2311 Mexican-American Politics ..... 3

### **English/Literature:**

ENGL 2351 Mexican-American Literature ..... 3

**Spanish:** **select 3 credit hours**  
SPAN 2312 Intermediate Spanish II ..... 3  
SPAN 2315 Spanish for Native Speakers II ..... 3  
**Fine Arts:**  
HUMA 1311 Mexican-American Fine Arts Appreciation ..... 3

## **MUSIC**

66 credit hours

*Also see AAS - Music, Commercial*

### **Department Chair:**

Chris Morgan ..... SCC-B183 .....972.516.5010

### **Academic Advisor:**

John Ciccio ..... SCC-G148.....972.578.5563

Torrey West ..... PRC-F132 .....972.377.1513

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

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

### **Career Opportunities**

Music Education

Performer

Composer

**MUSIC CORE CURRICULUM** **31 credit hours**

ENGL 1301 Composition/Rhetoric I ..... 3

ENGL 1302 Composition/Rhetoric II ..... 3

GOVT 2301 American Government I ..... 3

GOVT 2302 American Government II ..... 3

HIST 1301 U.S. History I ..... 3

HIST 1302 U.S. History II ..... 3

MATH 1314 College Algebra<sup>1</sup> ..... 3

XXXX xxxx Natural Science<sup>2</sup> ..... 4

PSYC 2301 General Psychology<sup>3</sup> ..... 3

SPCH 1311 Fundamentals of Speech Communication<sup>4</sup> ..... 3

**FIELD OF STUDY COURSES** **35 credit hours**

MUAP xxxx Applied Music (one each semester) ..... 8

MUEN x1xx Ensemble (one each semester) ..... 4

MUSI 1116 Aural Skills I ..... 1

MUSI 1117 Aural Skills II ..... 1

MUSI 1181 Beginning Piano I<sup>5</sup> ..... 1

MUSI 1182 Beginning Piano II<sup>5</sup> ..... 1

MUSI 1307 Introduction to Music Literature ..... 3

MUSI 1311 Music Theory I ..... 3

MUSI 1312 Music Theory II ..... 3

MUSI 2116 Aural Skills III ..... 1

MUSI 2117 Aural Skills IV ..... 1

MUSI 2181 Beginning Piano III<sup>5</sup> ..... 1

MUSI 2182 Beginning Piano IV<sup>5</sup> ..... 1



MUSI 2311 Music Theory III .....	3
MUSI 2312 Music Theory IV .....	3

- 1 Recommended, see page 53 for other options
- 2 Select from approved courses on page 53
- 3 May substitute SOCI 1301
- 4 May substitute SPCH 1315
- 5 All music majors must see the Department Chair. With permission of the chair, student may take four elective music (MUSI or MUEN) credits or MUSI 1304 and one elective music (MUSI or MUEN) credit.

## NURSING

71 credit hours

### Program Director:

Nell Ard, Ph.D., CNS, RNC. . CPC-B336 .....972.548.6772

### Academic Advisor:

Erin Darity..... CPC-A108B..... 972.548.6778

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

Collin's Nursing Program has adopted an integrated curriculum approach to the FOS. In order to complete the FOS, students must be admitted into the AAS RN program.

Students should check with an academic advisor or their transfer college or university for additional and/or specific degree requirements.

### Career Opportunities

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

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

**Additional Graduation Requirement** **3 credit hours**

See page 53.

Core curriculum courses are also included in the FOS listed below and will satisfy requirements for both the core curriculum and the FOS. In order to complete the FOS, students must be admitted into the AAS RN program.

## FIELD OF STUDY

**35 credit hours**

### ACADEMIC COURSES

BIOL 1322 General Nutrition .....	3
BIOL 2401 Anatomy and Physiology I .....	4
BIOL 2402 Anatomy and Physiology II .....	4
BIOL 2421 Microbiology .....	4
CHEM 1405 or 1411 Introduction to - or - General Chemistry I. . . .	4
MATH 1342 Statistics .....	3
PSYC 2301 General Psychology .....	3

### NURSING CONTENT COURSES

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

- 1 Corequisite courses include: RNSG 1219 and RNSG 1360
- 2 Corequisite courses include: RNSG 1229 and RNSG 1461

## PARALEGAL/LEGAL ASSISTANT

60 credit hours

Also see Associate of Applied Science - Paralegal/Legal Assistant, page 120.

### Department Chair:

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

### Paralegal/Legal Assistant Faculty Contact:

Marsha Griggs ..... SCC-I204. ....972.881.5185

### Academic Advisor:

Al Gober ..... PRC-F134 .....972.377.1780

The Texas Woman's University (TWU) and Collin Paralegal programs entered an articulation agreement, effective fall 1999, which establishes a plan for students to obtain an AA or AAS degree from Collin and a Bachelor of Science in Government-Legal Studies Emphasis from TWU. Students pursuing this plan will be assured transfer of all Collin legal courses toward the BS at TWU. A similar articulation agreement for the AA, effective fall 2004, has been established with Texas A&M University-Commerce for the Bachelor of Arts/Science in Political Science with Emphasis in Paralegal Studies degree.

### Career Opportunities

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

- Law firms
- Corporations
- Governmental agencies

**AA Core Curriculum**

**45 credit hours**

**Additional Graduation Requirement**

**3 credit hours**

See page 53.

### Recommended Electives

**12 credit hours\***

LGLA 1303 Legal Research .....	3
LGLA 1307 Introduction to Law and the Legal Professions .....	3
LGLA 1342 Federal Civil Litigation .....	3
LGLA 1353 Wills, Trusts, and Public Administration .....	3

LGLA 1355 Family Law .....	3
LGLA 2307 Law Office Management .....	3

\* LGLA 1303, LGLA 1307, LGLA 1342, LGLA 1353, LGLA 1355, and LGLA 2307 are accepted for transfer under the TWU/ Collin articulation agreement. LGLA 1303, LGLA 1307, LGLA 1353, and LGLA 1355 are accepted for transfer under the A&MCommerce/ Collin articulation agreement. Additional hours may be required for transfer. Contact the department chair.

## PHILOSOPHY

60 credit hours

### Contacts:

Carl Hasler .....	SCC-B131 .....	972.881.5753
Martha Tolleson .....	CPC-B252A .....	972.548.6843
Barbara Beverage .....	PRC-D174 .....	972.377.1578

### Academic Advisor:

Caryn Hawkins .....	PRC-F133 .....	972.377.1655
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The Philosophy Program seeks to develop men and women dedicated to the pursuit of knowledge. Students become acquainted with the main problems of philosophy. Emphasis is placed on philosophical thinking that enables graduates to integrate their work and their lives.

### Career Opportunities

Preparation for those who plan to major in philosophy at a college or university

Preparation for related fields such as law, government, education, business, science, and the humanities

### AA Core Curriculum

**45 credit hours**

### Additional Graduation Requirement

**3 credit hours**

See page 53.

### Recommended Electives

**12 credit hours**

PHIL 1301 Introduction to Philosophy .....	3
PHIL 1304 Comparative Religion .....	3
PHIL 2303 Introduction to Logic .....	3
PHIL 2306 Introduction to Ethics .....	3
PHIL 2307 Introduction to Social and Political Philosophy .....	3
PHIL 2321 Philosophy of Religion .....	3
ENGL 2322 British Literature I .....	3
ENGL 2323 British Literature II .....	3
ENGL 2332 World Literature I .....	3
ENGL 2333 World Literature II .....	3
GOVT 2304 Introduction to Political Science .....	3
HIST 2311 Western Civilizations I .....	3
HIST 2312 Western Civilizations II .....	3
XXXX x4xx Foreign Language Sequence I .....	4
XXXX x4xx Foreign Language Sequence II .....	4

## PHOTOGRAPHY

60 credit hours

### Department Chair:

Lupita Tinnen .....	SCC-K241 .....	972.578.5527
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### Academic Advisor:

John Ciccio .....	SCC-G148 .....	972.578.5563
Torrey West .....	PRC-F132 .....	972.377.1513

The photography world is now the imaging universe. Contemporary industry paradigm change dictates a new breed of visual athlete. An emphasis in Photography will produce a student with the visual literacy needed to function in today's image-obsessed environment. Technical skills with critical software/hardware applications, as well as conceptual understanding are covered in great detail.

This program includes intensive investigations into classic art photography techniques and approaches; studio lighting for portrait, fashion and product; comprehensive creative solutions; installation and image/text issues; graphic design specifics and contemporary digital workflow.

The state-of-the-art photography facility is one of the best in the state and includes 5 fully-equipped, 15 work station MAC G5 labs, a 15 station PC digital lab, a digital media room with Nikon/Imacon/Epson scanners and 20 Epson printers from 13 to 44 inches, a double studio with 1500, 3000 and 6000 watt second strobe set ups including a continuous artificial lighting set up for digital video, two 20 enlarger archival black and white dark rooms, two film processing rooms and equipment check out with digital, medium and large format film cameras, and portable strobe lighting equipment available.

The faculty is fully credentialed and consists of three full time and 10 associates, including professors from major graduate programs across the country, as well as working professionals from the regional commercial industry. For more information about Collin's Photography Program, contact Lupita Tinnen, chair, at Spring Creek Campus-K241, 972.578.5527 or via e-mail at ltinnen@ccccd.edu .

### Career Opportunities

Jobs in photography vary and can be applied to related disciplines:

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

<b>AA Core Curriculum</b>	<b>45 credit hours</b>
<b>Additional Graduation Requirement</b>	<b>3 credit hours</b>
<i>See page 53.</i>	

<b>Recommended Electives</b>	<b>12 credit hours</b>
ARTS 1313 Historical Foundation of Photography/ Imaging Technology .....	3
ARTS 2356 Photography I .....	3
ARTS 2357 Photography II .....	3
ARTS 2389 Academic Co-op Arts/Photography .....	3
COMM1316 News Photography I .....	3
COMM1317 News Photography II .....	3
COMM1319 Photo Editing and Layout .....	3

## PSYCHOLOGY

60 credit hours

### Department Chairs:

Larry Stern .....	SCC-J246 .....	972.881.5608
Michael McConachie ...	CPC-E221 .....	972.548.6513
Wendy Gunderson .....	PRC-F213 .....	972.377.1536

### Academic Advisor:

Kari Ford .....	SCC-G146 .....	972.516.5069
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An Associate of Arts degree with an emphasis in Psychology serves as a foundation for continued studies in psychology. Since most careers in psychology require an advanced degree, many students transfer to a college or university and eventually enter graduate school in psychology. The Psychology Program features a variety of introductory courses exploring the nature of behavior and mental processes. Course offerings include general psychology, applied psychology and life-span psychology. These courses emphasize current psychological theory and research, as well as the practical application of the basic principles of psychology to the student's daily life. Many courses in the program require participation in hands-on, experiential laboratory exercises that further emphasize practical application of course material.

### Career Opportunities

Students who earn advanced degrees in psychology are often employed as counselors, psychotherapists, and mental health workers. With further study, a psychology degree may also be used as a stepping-stone to a career in education, business, law, or medicine.

<b>AA Core Curriculum</b>	<b>45 credit hours</b>
<b>Additional Graduation Requirement</b>	<b>3 credit hours</b>
<i>See page 53.</i>	

<b>Recommended Electives</b>	<b>12 credit hours</b>
PSYC 2301 General Psychology .....	3
PSYC 2306 Human Sexuality .....	3
PSYC 2314 Life Span Psychology .....	3
PSYC 2315 Psychology of Adjustment .....	3
PSYC 2316 Psychology of Personality .....	3
PSYC 2319 Social Psychology .....	3

SOCI 1301 Introduction to Sociology .....	3
SOCI 1306 Social Problems .....	3
SOCI 2301 Marriage and Family .....	3

## SOCIOLOGY

60 credit hours

### Department Chair:

Larry Stern .....	SCC-J246 .....	972.881.5608
Michael McConachie ...	CPC-E221 .....	972.548.6513
Wendy Gunderson .....	PRC-F213 .....	972.377.1536

### Academic Advisor:

Kari Ford .....	SCC-G146 .....	972.516.5069
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The Sociology Program at Collin is designed to provide students with essential life skills and a deeper understanding of themselves, others and the various social worlds that they inhabit. Sociology examines how social factors affect both behavior and the potential consequences of that behavior. It seeks to uncover the existence of social patterns, explain how they come to be so and then explore the consequences of such patterns for different individuals, groups, collectives, and society at large. As such, sociology courses at Collin enable students to comprehend the widespread social changes that accompany society's immersion into the Information Age.

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

### Career Opportunities

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

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

<b>AA Core Curriculum</b>	<b>45 credit hours</b>
<b>Additional Graduation Requirement</b>	<b>3 credit hours</b>
<i>See page 53</i>	

<b>Recommended Electives</b>	<b>12 credit hours</b>
SOCI 1301 Introduction to Sociology .....	3
SOCI 1306 Social Problems .....	3
SOCI 2301 Marriage and Family .....	3
SOCI 2306 Human Sexuality .....	3
SOCI 2319 Minority Studies .....	3
ANTH 2351 Cultural Anthropology .....	3
PSYC 2301 General Psychology .....	3
PSYC 2314 Life Span Psychology .....	3
PSYC 2316 Psychology of Personality .....	3
PSYC 2319 Social Psychology .....	3

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

## SPANISH

60 credit hours

### Department Chair:

Ana Giron . . . . . SCC-G215 . . . . . 972.881.5724

### Academic Advisor:

Caryn Hawkins . . . . . PRC-F133 . . . . . 972.377.1655

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

### Career Opportunities

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

### AA Core Curriculum

**45 credit hours**

### Additional Graduation Requirement

**3 credit hours**

See page 53.

### Recommended Electives

**12 credit hours**

SPAN 1300 Conversational Spanish I . . . . .	3
SPAN 1310 Conversational Spanish II . . . . .	3
SPAN 1411 Beginning Spanish I . . . . .	4
SPAN 1412 Beginning Spanish II . . . . .	4
SPAN 2311 Intermediate Spanish I . . . . .	3
SPAN 2312 Intermediate Spanish II . . . . .	3
SPAN 2313 Spanish for Native Speakers I . . . . .	3
SPAN 2315 Spanish for Native Speakers II . . . . .	3
SPAN 2321 Spanish Literature I . . . . .	3
SPAN 2322 Spanish Literature II . . . . .	3

## SPEECH COMMUNICATION

See Communication Studies, page 57

For information on the Communication Field of Study, see page 57.

## THEATRE

60 credit hours

### Department Chair:

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

### Academic Advisor:

John Ciccio . . . . . SCC-G148 . . . . . 972.578.5563

Torrey West . . . . . PRC-F132 . . . . . 972.377.1513

An emphasis in Theatre introduces students to the aesthetic and analytical elements of theatrical productions. It offers a full curriculum of theatre study including work in beginning and advanced acting, musical theatre, voice and diction, stage and lighting design, costume design and stage makeup, theatre history and dramatic literature, and specialty courses in circus skills, stunt work, stage combat, stage management, and acting for the camera. The labs enable students to have hands-on experiences through performances, as well as shop and crew assignments. Studies include contemporary theories and classical aspects of theatrical productions.

The Theatre Program has been nationally ranked among the top 50 collegiate drama programs and was the 1996 national champion of collegiate drama. Theatre Program faculty and students have diverse experience in professional stage and motion picture work.

The state-of-the-art theatre facility is comprised of three separate performance spaces including the 350-seat John Anthony Theatre, the 120-seat Black Box Theatre and the intimate ALT Lab Theatre. The multi-million dollar complex also houses two dressing rooms, a theatre box office, a costume vault and construction shop, a scene and paint shop, in addition to numerous acting and directing classroom spaces.

For more information about the Collin Theatre Program, contact Brad Baker, chair of theatre, at Spring Creek Campus-C155, 972.881.5679, or via e-mail at bbaker@cccd.edu.

### Career Opportunities

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



**AA Core Curriculum**

**45 credit hours**

**Additional Graduation Requirement**

**3 credit hours**

See page 53.

**Recommended Electives**

**12 credit hours**

DRAM 1120 Theatre Practicum - Performance .....	1
DRAM 1121 Theatre Practicum - Technical .....	1
DRAM 1161 Musical Theatre Workshop I .....	1
DRAM 1162 Musical Theatre Workshop II .....	1
DRAM 1310 Introduction to the Theatre .....	3
DRAM 1322 Stage Movement .....	3
DRAM 1323 Basic Theatre Practice .....	3
DRAM 1330 Stagecraft I .....	3
DRAM 1341 Theatrical Makeup .....	3
DRAM 1342 Introduction to Costuming .....	3
DRAM 1351 Acting I .....	3
DRAM 1352 Acting II .....	3
DRAM 1370 Stage Management .....	3
DRAM 2170 Demonstration Lab .....	1
DRAM 2331 Stagecraft II .....	3
DRAM 2336 Voice and Diction .....	3
DRAM 2351 Acting III: Improvisation .....	3
DRAM 2352 Acting IV: Acting for Film and Television .....	3
DRAM 2361 History of the Theatre I .....	3
DRAM 2362 History of the Theatre II .....	3
DRAM 2363 History of Musical Theatre .....	3
DRAM 2366 History of Film Making I .....	3
DRAM 2367 History of Film Making II .....	3
DRAM 2370 Theatre Outreach .....	3
DRAM 2372 Script Analysis .....	3
DRAM 2373 Practical Costuming .....	3
DRAM 2375 Fundamentals of Stage Lighting .....	3
DRAM 2376 Stage Combat and Circus Skills .....	3
DRAM 2377 Shakespeare: Shakespeare on Stage (Acting Shakespeare) .....	3

**AREAS OF EMPHASIS FOR THE  
ASSOCIATE OF ARTS IN TEACHING**

61-63 credit hours

**Department Chair:**

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

**Academic Advisor:**

Jesus Gonzalez..... SCC-G147 ..... 972.578.5562

Collin County Community College offers courses that fulfill the state requirements for an Associate of Arts in Teaching (AAT). Completion of an AAT will meet the lower division requirements for baccalaureate programs that lead to initial Texas teacher certification. Each of the three AAT specializations is designed to prepare teachers for the various certifications offered in Texas. The degree plan best suited to the desired certification should be followed and transferred to a university to complete Texas teacher certification requirements.

Students must contact the teacher education program at the specific college or university to which they plan to transfer for detailed information. Contact names and phone numbers are available from a Collin academic advisor, or go to <http://transferu.ccccd.edu>

To earn the AAT degree, students must complete a minimum of 60 credit hours including all of the required courses listed for the AAT area of emphasis which the student has selected (listed below) and earn a minimum cumulative GPA of 2.0.

**AA or AS Core Curriculum**

**45 credit hours**

See pages 53-54

**AAT in EC-4, 4-8, EC-12**

The Early Childhood-Grade 4, Grade 4-8 and Early Childhood-Grade 12 AAT satisfies the lower-division requirements for bachelor's degrees leading to initial Texas teacher certification in all EC-4 and 4-8 certification areas (except early childhood degree specialization) and EC-12 Special Education. This degree is for students who want to teach grades EC-Grade 4 and higher.

**Required Courses**

**16 credit hours**

EDUC 1301 Introduction to the Teaching Profession .....	3
EDUC 2301 Introduction to Special Populations .....	3
MATH 1350 Fundamentals of Mathematics I .....	3
MATH 1351 Fundamentals of Mathematics II .....	3
Additional lab science <sup>1</sup> .....	4

1 Check with a Collin academic advisor and the receiving college or university for transfer requirements.

**AAT in Grades 8-12, Other EC-12**

The AAT for Grades 8-12 and other Early Childhood-Grade 12 licensure satisfies the lower-division requirements for bachelor's degrees leading to initial Texas teacher certification in all 8-12 and specialized EC 12 certification areas.

<b>Required Course</b>	<b>18 credit hours</b>
EDUC 1301 Introduction to the Teaching Profession .....	3
EDUC 2301 Introduction to Special Populations .....	3
Courses in academic disciplines or content-area teaching fields <sup>1</sup> .....	12
<i>Check with a Collin academic advisor and the receiving college or university for recommended courses in teaching field prior to registering.</i>	

**AAT in EC-4 Early Childhood Degree Specialization**

The AAT in Early Childhood-Grade 4 Early Childhood Degree Specialization refers only to the degree program offered at a university and not to a particular SBEC certification area.

All EC-4 Generalists (except EC-4 Generalist Bilingual and EC-4 Generalist ESL), no matter the university degree specialization, take the same TExES examination for certification and are certified to teach in any EC-4 classroom. This degree is for students who only want to teach grades EC-Grade 4.

<b>Required Courses</b>	<b>18 credit hours</b>
MATH 1350 Fundamentals of Mathematics I .....	3
MATH 1351 Fundamentals of Mathematics II .....	3
TECA 1303 Family, School, and Community .....	3
TECA 1311 Educating Young Children .....	3
TECA 1318 Wellness of the Young Child .....	3
TECA 1354 Child Growth and Development .....	3

**Teacher Certification Program**

The Teacher Certification Program is located within the Center for Teaching, Learning and Professional Development at CCCCD@ALLEN (inside Allen High School). For details, contact the program advisor. This program is only for individuals who have attained a baccalaureate, or higher, degree.

<b>Director:</b>	
Sabrina Belt .....	CCCCD@Allen ..... 972.377.1067
<b>Program Advisor:</b>	
Jyo Pai .....	CCCCD@Allen ..... 972.377.1062

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

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

**BIOLOGY**

60 credit hours
<b>Department Chair:</b>
David McCulloch ..... SCC-I224..... 972.881.5991
Cathy Donald-Whitney... CPC-C200B..... 972.548.6717
Jud May ..... PRC-U129A..... 972.377.1635

<b>Academic Advisor:</b>
Ken Bogan..... SCC-G140.....972.578.5564

The Associate of Science degree with an emphasis in Biology 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 Collin 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.

- Some will require a graduate degree.
- Agriculture
- Allied Health Sciences
- Biotechnology
- Botany
- Dentistry
- Ecology
- Environmental Science
- Genetic Counseling
- Genetic Engineering
- Marine Science
- Medical Research
- Medical Technology
- Medicine
- Microbiology
- Nutrition and Dietary Science
- Pharmacology
- Physical Therapy
- Science Education

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

Toxicology  
Veterinary Science  
Wildlife Biology

#### AS CORE CURRICULUM

45 credit hours

#### Additional Graduation Requirement

3 credit hours

See pages 53-54.

#### Recommended Electives

12 credit hours

BIOL 1322 General Nutrition	3
BIOL 1411 General Botany	4
BIOL 2389 Academic Co-op Biology	3
BIOL 2401 Anatomy and Physiology I	4
BIOL 2402 Anatomy and Physiology II	4
BIOL 2406 Environmental Biology	4
BIOL 2416 Genetics	4
BIOL 2421 Microbiology	4
BIOL 2428 Comparative Vertebrate Anatomy	4
CHEM 1411 General Chemistry I	4
CHEM 1412 General Chemistry II	4
CHEM 2423 Organic Chemistry I	4
CHEM 2425 Organic Chemistry II	4
MATH 1342 Statistics	3
PHYS 1401 General Physics I	4
PHYS 1402 General Physics II	4
PHYS 2425 University Physics I	4
PHYS 2426 University Physics II	4
SRGT 1301 Medical Terminology I	3

## CHEMISTRY

60 credit hours

#### Department Chair:

Fred Jury	SCC-I103	972.881.5883
Cathy Donald-Whitney	CPC-C200B	972.548.6717
Nick Geller	PRC-L235	972.377.1674

#### Academic Advisor:

Ken Bogan	SCC-G140	972.578.5564
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The Associate of Science degree with an emphasis in Chemistry establishes an academic foundation for further studies in the sciences. Courses include general chemistry and organic chemistry, as well as an introduction to chemistry designed for students who are novices in the science disciplines. Solving problems in chemistry requires creativity and curiosity, as well as logic and reasoning. An excellent instructional staff, computer-aided instruction, laboratory facilities, and current scientific literature give chemistry students at Collin a personalized, high quality educational experience.

#### Career Opportunities

Careers listed below demand knowledge of chemistry and many require academic training beyond the Associate of Science degree and some will require graduate education.

Biochemistry  
Chemistry  
Dentistry

Environmental Science  
Forensic Chemistry  
Geophysics  
Materials Science  
Medicine  
Nanotechnology  
Pharmaceutical Science  
Science Education  
Toxicology  
Veterinary Science

#### AS CORE CURRICULUM

45 credit hours

#### Additional Graduation Requirement

3 credit hours

See pages 53-54.

#### Recommended Electives

12 credit hours

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

## COMPUTER SCIENCE

60 credit hours

#### Department Chair:

Bill Slater	SCC-J126	972.881.5976
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#### Academic Advisor:

Al Gober	PRC-F134	972.377.1780
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The Associate of Science degree with an emphasis in Computer Science prepares students for work in a variety of related areas. In particular, students are prepared for transfer to a college or university where they can specialize in such disciplines as computer science and computer software engineering. The coursework for a Bachelor of Science degree in computer science is similar at most colleges and universities. However, the student is advised to consult an academic advisor when deciding upon which university to attend and which course of study to pursue.

#### Career Opportunities

Software engineers and computer scientists currently occupy more than two-thirds of all technical and a large percentage of managerial positions in industry.

#### AS Core Curriculum

45 credit hours

#### Additional Graduation Requirement

3 credit hours

See pages 53-54.

#### Recommended Electives

12 credit hours

COSC 1436 Programming Fundamentals I - C++	4
COSC 1437 Programming Fundamentals II - C++	4
COSC 2336 Programming Fundamentals III - C++	3
COSC 1337 Programming Fundamentals II - Java	3

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

COSC 2436 Programming Fundamentals III - Java	4
COSC 2325 Computer Organization and Machine Language	3
MATH 2305 Discrete Mathematics <sup>1</sup>	3
MATH 2413 Calculus I <sup>1</sup>	4
MATH 2414 Calculus II <sup>1</sup>	4

1 Recommended course for additional mathematics requirements

### FIELD OF STUDY

### 30 credit hours

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

The student shall receive full academic credit toward the degree program for the FOS block of courses transferred.

Within the FOS there are courses listed which will satisfy requirements for both the AS Core Curriculum and the FOS. There are two tracks offered in the FOS (C++ Track and Java Track). Both tracks cover the same fundamental theory and material but use different languages.

### Core Courses

COSC 1436 Programming Fundamentals I - C++ <sup>1</sup>	4
COSC 2325 Computer Organization and Machine Language <sup>2</sup>	3
MATH 2413 Calculus I <sup>3</sup>	4
MATH 2414 Calculus II <sup>3</sup>	4
PHYS 2425 University Physics I <sup>3</sup>	4
PHYS 2426 University Physics II <sup>3</sup>	4

### C++ Track Content Courses

COSC 1437 Programming Fundamentals II - C++ <sup>1</sup>	4
COSC 2336 Programming Fundamentals III - C++ <sup>1</sup>	3

### Java Track Content Courses

COSC 1337 Programming Fundamentals II - Java <sup>1</sup>	3
COSC 2436 Programming Fundamentals III - Java <sup>1</sup>	4

1 COSC 1436 and COSC 1337/1437 are preparatory and sequential in nature; however, not all courses are required for the Computer Science major at all universities but may apply to general degree requirements.

a) COSC 1436 is not part of the Computer Science major requirements at the University of Texas at Austin, the University of Texas at Arlington, The University of Texas at Dallas, and Texas A&M University.

b) COSC 1337 and COSC 1437 are not part of the Computer Science major requirements at the University of Texas at Austin. Preparatory courses such as COSC 1436 and COSC 1337/1437 will assist students who need additional

background but do not apply toward the computer science major requirements.

2 COSC 2325/2425 is not part of the Computer Science major requirements at the University of Texas at Austin, University of Texas at Dallas, or Texas A&M University but may be applied to general degree requirements.

3 It is recommended that students complete the math sequence, physics sequence, and computer science sequence at the same institution to reduce the likelihood of potential gaps in the curriculum.

## ENGINEERING

60 credit hours

### Program Director:

Wayne Jones ..... PRC-H213 ..... 972.377.1676

### Academic Advisor:

Al Gober ..... PRC-F134 ..... 972.377.1780

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

### Career Opportunities

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

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

### AS CORE CURRICULUM 45 credit hours

### Additional Graduation Requirement 3 credit hours

See pages 53-54.

Students in this Field of Study need a higher proficiency in computer science and are advised to substitute COSC 1436 for COSC 1300. Within the FOS there are courses listed which will satisfy requirements for both the AS Core Curriculum and the FOS.



## RECOMMENDED CORE COURSES FOR ENGINEERING

Mathematics<sup>1</sup>: MATH 2320, MATH 2413, MATH 2414, or MATH 2415  
 Natural Sciences<sup>2</sup>: CHEM 1412, PHYS 2425, or PHYS 2426

- 1 Please check prerequisites for these courses. All four courses are required for the Engineering Field of Study. One course will be used to fulfill core requirements, and a second course will be used to fulfill degree requirements.
- 2 Please check prerequisites for these courses. All three courses are required for the Engineering Field of Study. Two courses will be used to fulfill core requirements.

### FIELD OF STUDY

**36 credit hours**

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

- 1 Please check prerequisites for this course.

### RECOMMENDED ELECTIVE

The following recommended elective may also be taken toward a bachelor's degree; however, it is not part of the FOS:  
 ENGR 1201 Introduction to Engineering ..... 2

## ENGINEERING TECHNOLOGY

### Electronic and Computer Engineering Technology

60 credit hours

#### Program Director:

Wayne Jones ..... PRC-H213 ..... 972.377.1676

#### Academic Advisor:

Al Gober ..... PRC-F134 ..... 972.377.1780

The Engineering Technology Field of Study (FOS) is preparation for a Bachelor of Science degree in Electronics and Computer Engineering Technology at a college or university.

The completed Field of Study is designed to transfer to any Texas public college or university.

### AS CORE CURRICULUM

**45 credit hours**

### Additional Graduation Requirement

**3 credit hours**

See pages 53-54.

Students in this FOS need a higher proficiency in computer science and are advised to substitute COSC 1436 for COSC 1300. Within the FOS there are courses listed which will satisfy requirements for both the AS Core Curriculum and the FOS.

## RECOMMENDED CORE COURSES FOR ENGINEERING TECHNOLOGY

Mathematics<sup>1</sup>: MATH 2413 or MATH 2414  
 Natural Sciences<sup>2</sup>: CHEM 1411, PHYS 2425, or PHYS 2426

- 1 Please check prerequisites for these courses. Both courses are required for the Engineering Technology Field of Study. One course will be used to fulfill core requirements, and the second course will be used to fulfill degree requirements.
- 2 Please check prerequisites for these courses. All three courses are required for the Engineering Technology Field of Study. Two courses will be used to fulfill core requirements.

### FIELD OF STUDY

**35 credit hours**

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

- 1 Please check prerequisites for this course.

### RECOMMENDED ELECTIVE

The following recommended elective may also be taken toward a bachelor's degree; however, it is not part of the FOS:  
 ENGR 1201 Introduction to Engineering ..... 2

## ENVIRONMENTAL SCIENCE

60 credit hours

#### Department Chair:

Daphne Babcock ..... SCC-I226 ..... 972.578.5518  
 Cathy Donald-Whitney ... CPC-C200B ..... 972.548.6717  
 Jud May ..... PRC-U129A ..... 972.377.1635

#### Academic Advisor:

Ken Bogan ..... SCC-G140 ..... 972.578.5564

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

### Career Opportunities

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

## AS CORE CURRICULUM

45 credit hours

### Additional Graduation Requirement

3 credit hours

See pages 53-54.

### Recommended Electives

12 credit hours

ENVR 1401 Environmental Science I	4
ENVR 1402 Environmental Science II	4
BIOL 1406 General Biology I	4
BIOL 2406 Environmental Biology	4
CHEM 1411 General Chemistry I	4
GEOL 1403 Physical Geology	4
GEOL 1405 Earth Habitat	4
GEOL 1445 Oceanography	4
GEOL 1447 Introduction to Meteorology	4
MATH 1342 Statistics	3
MATH 2413 Calculus I	4
PHYS 1401 General Physics I	4

## GEOLOGY

60 credit hours

### Department Chair:

Daphne Babcock	SCC-I226	972.578.5518
Cathy Donald-Whitney	CPC-C200B	972.548.6717
Jud May	PRC-U129A	972.377.1635

### Academic Advisor:

Ken Bogan	SCC-G140	972.578.5564
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The science of geology seeks to understand the earth and the natural processes that act within the earth's environment. The basic concepts of geology overlap several disciplines. Knowledge of geology provides a background for careers in geology and environmental fields.

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

### Career Opportunities

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

- Civil Engineering
- Environmental Engineering
- Environmental Science
- Geochemistry
- Geology
- Geophysics
- Hydrogeology
- Land-use Planning
- Meteorology
- Mining Technology

- Oceanography
- Petroleum Exploration
- Resource Management
- Seismology
- Soil Science
- Waste Management

## AS CORE CURRICULUM

45 credit hours

### Additional Graduation Requirement

3 credit hours

See pages 53-54.

### Recommended Electives

12 credit hours

BIOL 2406 Environmental Biology	4
ENVR 1401 Environmental Science I	4
GEOL 1305 Natural Disasters	3
GEOL 1447 Introduction to Meteorology	4
GEOL 1405 Earth Habitat	4
GEOL 1445 Oceanography	4
GEOL 2389 Academic Co-op Geology	3
CHEM 1411 General Chemistry I	4
CHEM 1412 General Chemistry II	4
ENGL 2311 Technical and Business Writing	3
MATH 1342 Statistics	3
MATH 2413 Calculus I	4
MATH 2414 Calculus II	4
PHYS 2425 University Physics I	4
PHYS 2426 University Physics II	4

## MATHEMATICS

60 credit hours

### Department Chair:

Raja Khoury	SCC-J217	972.881.5909
Cathy Donald-Whitney	CPC-C200B	972.548.6717
Nick Geller	PRC-L235	972.377.1674

### Academic Advisor:

Ken Bogan	SCC-G140	972.578.5564
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The Mathematics Program offers courses that meet general mathematics requirements for associate degrees and for transfer and technical programs. More advanced courses prepare students for majors in mathematics, science, and engineering. Most courses include a graphing calculator or computer use, and lab components emphasize applications of mathematical concepts. Mathematics instruction at Collin features well-qualified professors and a mathematics laboratory providing personal, computer, and audio-visual tutorial assistance.

### Career Opportunities

Mathematics majors have many potential career opportunities.

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

Actuary  
Consultant  
Operations Researcher  
Statistician  
Teacher

Sports Administrator  
Sports Medicine  
Teacher

## AS CORE CURRICULUM

45 credit hours

### Additional Graduation Requirement

3 credit hours

See pages 53-54.

### Recommended Electives

12 credit hours

MATH 1314 College Algebra	3
MATH 1316 Trigonometry	3
MATH 1342 Statistics	3
MATH 1370 Introduction to the History of Mathematics	3
MATH 2305 Discrete Mathematics	3
MATH 2312 Pre-Calculus	3
MATH 2318 Linear Algebra	3
MATH 2320 Differential Equations	3
MATH 2373 Matrices, Vectors, and Linear Programming	3
MATH 2413 Calculus I	4
MATH 2414 Calculus II	4
MATH 2415 Calculus III	4
MATH 2417 Accelerated Calculus I	4
MATH 2419 Accelerated Calculus II	4
ENGL 2311 Technical and Business Writing	3
ENGL 23XX Any Literature course	3
PHIL 2303 Introduction to Logic	3

## PHYSICAL EDUCATION

60 credit hours

### Department Chair:

Rex Parcells . . . . . SCC-A218 . . . . . 972.881.5920

### Academic Advisor:

Torrey West . . . . . PRC-F132 . . . . . 972.377.1513

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

Offerings in the humanities, social sciences, and biological sciences also prepare the student for a career in physical education.

### Career Opportunities

Physical education offers challenging, rewarding careers. Listed below are some of the possibilities, many of which may require training beyond the Associate of Science degree.

Aerobic Instructor  
Athletic Director  
Athletic Trainer  
Coach  
Fitness Center Instructor  
Personal Trainer  
Recreation Coordinator

## AS CORE CURRICULUM

45 credit hours

### Additional Graduation Requirement

3 credit hours

See pages 53-54.

### General Physical Education

#### Recommended Electives

12 credit hours

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

### Sports Management

"Sports Management" refers to the business and operations side of the sports industry. In college athletics or professional sports organizations, for example, sports management professionals may be found performing a wide variety of tasks, including marketing, advertising, ticket sales, ordering and maintaining equipment and supplies, public relations, team travel coordination and ensuring compliance with league rules.

## AS CORE CURRICULUM

45 credit hours

### Additional Graduation Requirement

3 credit hours

See pages 53-54.

### Sports Management:

#### Recommended Electives

12 credit hours

PHED 1301 Foundations of Sport and Physical Activity	3
PHED 1336 Introduction to Sports Management	3
PHED 1337 Leadership and Communication in Sport	3
ACCT 2301 Financial Accounting	3
ECON 2301 Principles of Macroeconomics	3
ECON 2302 Principles of Microeconomics	3

## PHYSICS

60 credit hours

### Department Chair:

Fred Jury . . . . . SCC-I103. . . . . 972.881.5883

Nick Geller . . . . . PRC-L235 . . . . . 972.377.1674

### Academic Advisor:

Ken Bogan . . . . . SCC-G140 . . . . . 972.578.5564

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

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

Students planning to transfer to a college or university should check the specific degree plan requirements of their intended major.

### Career Opportunities

Physics students may select a career in a wide range of scientific and technical fields. Students should bear in mind that most of these career areas require education or training beyond the Associate of Science degree. Depending on the career plans of the student, the Physics emphasis will be at the general physics or the college physics level. Career fields available to the physics student include:

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

### AS CORE CURRICULUM

**45 credit hours**

#### Additional Graduation Requirement 3 credit hours

See pages 53-54.

### GENERAL PHYSICS LEVEL

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

### UNIVERSITY PHYSICS LEVEL

Students seeking advanced degrees in science and engineering fields should select advanced levels of physics and mathematics courses (such as the courses listed below) for the AS degree.

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

### Recommended Electives

**12 credit hours**

PHYS 1403 Stars and Galaxies	4
PHYS 2389 Academic Co-op Physics	3
CHEM 1411 General Chemistry I	4
CHEM 1412 General Chemistry II	4
ENGL 2311 Technical and Business Writing	3
MATH 2312 Pre-Calculus	3
MATH 2318 Linear Algebra	3
MATH 2320 Differential Equations	3
MATH 2415 Calculus III	4

## TECHNICAL COMMUNICATION AND KNOWLEDGE MANAGEMENT

60 credit hours

### Faculty Contact:

Jennifer Warren . . . . . SCC-B109 . . . . . 972.881.5968

### Academic Advisor:

Caryn Hawkins . . . . . PRC-F133 . . . . . 972.377.1655

The AS in Technical Communications and Knowledge Management is a two-year (four-semester) program that will prepare those completing it to transfer into baccalaureate level programs in Technical Communication or related fields at universities throughout Texas and around the country, or to enter the field of Knowledge Management after completing a liberal arts degree and possible graduate training.

The course of study includes a strong liberal arts core curriculum (45 hours) as well as an additional course in mathematics required for the Associate of Science degree, and four courses in the concentration.

According to the Bureau of Labor Statistics' Occupational Outlook Handbook: "Technical writers put technical information into easily understandable language. They prepare operating and maintenance manuals, catalogs, parts lists, assembly instructions, sales promotion materials, and project proposals. Many technical writers work with engineers on technical subject matters to prepare written interpretations of engineering and design specifications and other information for a general readership. Technical writers also may serve as part of a team conducting usability studies to help improve the design of a product that still is in the prototype stage. They plan and edit technical materials and oversee the preparation of illustrations, photographs, diagrams, and charts."

There is a significant demand for Technical Communicators in North Texas' knowledge intensive economy. According to the Bureau of Labor Statistics, employment of Technical Writers in Texas is expected to have grown by 20% between 2002 and 2012, from 3800 to 4550.

Most Technical Writers work for private corporations, especially in the fields of computer systems design, software publishing, engineering services, and scientific, technical, and management consulting.

Positions generally require at least a Bachelor's degree, though there are a small number of openings for candidates with Associate's degrees.



Knowledge Management is an emerging field which offers excellent opportunities for students with a broad liberal arts background and strong communications and leadership skills to enter the business world in a way that offers opportunities for advancement into management.

There are no special admissions requirements for this program.

Students interested in the program should see an academic advisor for consultation and consult the college web site for more specific information.

#### CORE COURSES:

##### **Communication:**

ENGL 1301 Composition/Rhetoric I	3
ENGL 1302 Composition/Rhetoric II	3
SPCH 1321 Business and Professional Speaking	3

##### **Humanities:** **3 credit hours**

Any PHIL course listed (see page 53)	3
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##### **Mathematics:** **3 credit hours**

Any MATH course listed (see page 53) <sup>1</sup>	3
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##### **Natural Sciences:** **8 credit hours**

Any two courses listed (see page 53) <sup>2</sup>	8
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##### **Social/Behavioral Sciences:** **3 credit hours**

Any course listed (see page 53)	3
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##### **Social Sciences:** **12 credit hours**

GOVT 2301 American Government I	3
GOVT 2302 American Government II	3
HIST 1301 U. S. History I	3
HIST 1302 U. S. History II	3

##### **Visual/Performing Arts:** **3 credit hours**

Any course listed (see page 53)	3
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##### **Institutional Option:** **4 credit hours**

PHED/DANC Any Activity Course	1
BCIS 1305 Business Computer Applications	3

##### **Additional AS requirement:** **3 credit hours**

Any MATH course listed (see page 53) <sup>1</sup>	3
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##### **Concentration Courses:** **12 credit hours**

BUSI 2304 Business Writing and Technical Communications Seminar	3
COMM 2301 Intro to Technology and Human Communication	3
ENGL 2311 Technical and Business Writing	3
ENGL 2389 Academic Co-op English	3

1 Calculus and/or Statistics courses are preferred

2 Physics courses are preferred

## PRE- PROFESSIONAL PROGRAMS FOR TRANSFER STUDENTS

Professional schools, such as architecture, business, chiropractic, dental, engineering, law, medicine, pharmacy, and veterinary medicine require varying amounts of undergraduate preparation. Many of the required courses at the freshman and sophomore levels are offered at Collin. It is the responsibility of students to know the exact requirements for admission to the specific professional school to which they are applying. For assistance, additional information and specific Texas and out-of-state requirements, consult a Collin academic advisor.

### Center for Advanced Study in Mathematics and Natural Sciences (CASMNS)

The center includes advanced opportunities in biology, chemistry, geology, mathematics, and physics. Upon successful completion of 12 or more CASMNS credit hours from the designated courses, the student will receive special recognition by the college, and a notation will be included on their official Collin transcript. Research opportunities are available for some students in the program.

Applicants are assessed on the following enrollment requirements and should:

- Be highly motivated majors in mathematics or natural science
- Maintain an overall grade point average of 3.0
- Have their transcripts evaluated to ensure that prerequisites have been met
- Be interviewed by a CASMNS instructor
- Be recommended by discipline faculty or be approved to participate by the Dean of Mathematics and Natural Sciences

Qualified students enrolled in selected sections of these courses may be eligible for CASMNS credit activities:

BIOL 1406, BIOL1407, and BIOL 1411  
CHEM 1411, CHEM 1412, CHEM 2423, and CHEM 2425  
GEOL 1403 and GEOL 1405  
MATH 2413, MATH 2414, MATH 2415, MATH 2417, and MATH 2419  
PHYS 1401, PHYS 1402, PHYS 2425, and PHYS 2426

See the course descriptions section in the back of this catalog for complete information on these courses.

### PRE-ARCHITECTURE

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

Collin offers the general education courses commonly required for students entering a baccalaureate degree program leading to careers in architecture, landscape architecture, building construction, and urban and regional planning.

Recommended courses include:

**Design** **3 credit hours**

ARTS 1311

**English** **6 credit hours**

ENGL 1301 and ENGL 1302

<b>Mathematics</b>	<b>8 credit hours</b>
MATH 2413 and MATH 2414	
<b>Physics</b>	<b>8 credit hours</b>
PHYS 1401 and PHYS 1402	
<b>Social and Behavioral Science</b>	<b>15 credit hours</b>
GOVT 2301 and GOVT 2302	
HIST 1301 and HIST 1302	
PSYC 2301	

**PRE-HEALTH PROGRAMS**

<b>PRE-CHIROPRACTIC, PRE-CLINICAL LAB SCIENCES, PRE-PHARMACY, PRE-PHYSICIAN'S ASSISTANT, PRE-VETERINARY MEDICINE</b>	
Mary Weis . . . . . SCC-K244 . . . . .mweis@cccd.edu	
<b>PRE-DENTAL, PRE-MEDICINE</b>	
Jean Helgeson . . . . . SCC-J138 . . .jhelgeson@cccd.edu	972.881.5885

Collin offers the courses that are most commonly recommended for the first two years of Pre-Chiropractic, Pre-Dental, Pre-Medicine, Pre-Pharmacy, and Pre-Veterinary Medicine programs at most colleges and universities. These courses provide a basic foundation in medical science and help establish basic clinical reasoning and clinical skills.

Most English, mathematics and science courses have prerequisite requirements. See the Course Descriptions section in the back of this catalog to determine the order in which to take these courses. To be assured students make correct choices from the courses listed below and/or to learn of different or additional course requirements from the college or university, students should visit with a Collin academic advisor.

<b>Recommended courses include:</b>	
<b>Biology</b>	<b>8-16 credit hours</b>
BIOL 1406 and BIOL 1407	
Two (2) sophomore-level Biology courses	
<b>Chemistry</b>	<b>8-16 credit hours</b>
CHEM 1411, CHEM 1412, CHEM 2423, and/or CHEM 2425	
<b>English</b>	<b>6 credit hours</b>
ENGL 1301 and ENGL 1302	
<b>Mathematics</b>	<b>3-14 credit hours</b>
MATH 1316, MATH 1342, MATH 2413, and/or MATH 2414	
<b>Physics</b>	<b>0-8 credit hours</b>
PHYS 1401, PHYS 1402, PHYS 2425, and/or PHYS 2426	
<b>Social/Behavioral Science</b>	<b>15 credit hours</b>
ANTH 2351, PSYC 2301, or SOCI 1301	
GOVT 2301 and GOVT 2302	
HIST 1301 and HIST 1302	

**PRE-LAW**

<b>Department Chair:</b>	
Tom Hudgins . . . . . SCC-G225 . . . . .972.516.5060	
<b>Faculty Advisor:</b>	
Marsha Griggs . . . . . SCC-I204 . . . . .972.881.5185	

Future law school students should take courses that emphasize written and oral skills, research into problems facing society, logical reasoning, and business practices. For this occupation, students should consider taking courses in the following discipline areas:

- Accounting
- Business
- Economics
- English
- History
- Humanities
- Philosophy
- Psychology
- Sociology
- Speech

Course selections should always be discussed with a Collin academic advisor to ensure that students take the correct courses for their particular pre-law program.

An applicant for admission to a school of law must have received, or have completed, all requirements for a baccalaureate degree from a college or university of approved standing prior to beginning work in a school of law. Pre-law students are encouraged to take the Law School Admission Test (LSAT) during the summer before their senior year.

**WORKFORCE EDUCATION PROGRAMS**

**ASSOCIATE OF APPLIED SCIENCE DEGREE**

The Associate of Applied Science degree (AAS) is awarded upon completion of a prescribed program of study designed to prepare students to enter and compete in the job market. AAS curricula are designed to enable the graduate to enter an occupation with marketable skills, an acceptable level of technical competency, and the ability to communicate effectively. In addition, the AAS degree helps prepare students for life-long learning.

The AAS degree is awarded to students who meet the specific degree requirements along with the graduation requirements listed on page 77. The Core Curriculum and the total number of hours required to graduate with an AAS degree vary among the programs; however, a minimum of 18 credit hours must be earned in residency at Collin.

WECM (Workforce Education Course Manual) courses are those courses designated by the Texas Higher Education Coordinating Board as workforce education (technical) courses offered for credit and CEUs (Continuing Education Units). While these courses are not designed to automatically transfer to public four-year colleges and universities, they will transfer to state community colleges and selected colleges and universities.

**PROGRAM ADVISORY COMMITTEES**

Instructional areas in each technical program area use advisory committees for program development, evaluation, long-range planning, development of employment opportunities for graduates, and other program issues. These committees provide an essential link between the education institution and the business community to ensure that graduates are adequately prepared for employment. Members of the advisory committees

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

are selected from related industry, prospective employers, and other knowledgeable community representatives.

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

## RECIPROCAL TUITION AGREEMENTS

Collin County residents may enroll in select Workforce Education (WECM) programs offered by the Dallas County Community College District (DCCCD) and Grayson County College at in-county tuition rates. Likewise, Dallas County and Grayson County residents may enroll in select Workforce Education programs offered by Collin. For more information contact the Admissions and Records Office at CPC-972.548.6710, PRC-972.377.1744 or SCC-972.881.5710.

## AAS Core Curriculum

**English** **3 credit hours**  
ENGL 1301

**Speech Communications** **3 credit hours**  
Select one course:  
SPCH 1311, 1315, or 1321

**Mathematics** **3 credit hours**  
Select one course:  
MATH 1xxx College-level mathematics course  
MATH 2xxx College-level mathematics course  
*Math requirements may vary from the core curriculum. Check each degree plan. MATH 1314 or higher is recommended for transfer students.*

**Humanities/Fine Arts** **3 credit hours**  
Select one course:  
ARTS 1301, 1303, or 1304  
DANC 2303  
DRAM 1310, 2361, or 2362  
ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, or 2343  
FREN 2303 or 2304  
HUMA 1301  
MUSI 1306 or 1307  
PHIL 1301, 1304, 2303, 2306, 2307, or 2321  
SPAN 2321 or 2322

**Social/Behavioral Science** **3 credit hours**  
Select one course:  
ANTH 2351  
ECON 1301, 2301, or 2302  
GOVT 2301 or 2302  
HIST 1301, 1302, or 2301  
PSYC 2301 or 2302  
SOCI 1301

**Physical Education/Dance** **1 credit hour minimum**  
Select one course:  
PHED/DANC Any activity course or PHED 1338

**AAS Core Curriculum** **16 credit hours minimum**

*Note: The Biotechnology, Dental Hygiene, Emergency Medical Services Professions, Fire Science, Nursing, Respiratory Care, and Surgical Technology programs at Collin have specific core curriculum requirements. Please refer to the respective degree plan for details.*

*Note: The computer literacy requirement is met through each AAS degree, either by integrating the competencies throughout the program's curriculum or by requiring a separate computer science course in the program's curriculum.*

## CERTIFICATE PROGRAMS

Collin offers certificate programs designed to meet specific employment needs of the community. Students who enroll in certificate programs are generally interested in re-entering the job market after an absence, changing careers, or upgrading job-related skills in order to enhance employment specialization. Although certificates are normally one year in length, the specific number of credit hours varies by program area.

## Marketable Skills Achievement Awards

A Marketable Skills Achievement Award is a sequence of credit courses totaling 9-14 semester credit hours. Collin offers Marketable Skills Achievement Awards for the following:

- Animation, contact Lupita Tinnen at 972.578.5527
- Applied Graphic Design Technology, contact Lupita Tinnen at 972.578.5527
- Child Development, contact Elaine Wilkinson at 972.881.5967
- Cisco Systems Networking (CCNA), contact Wayne Jones at 972.377.1676
- Computer-Aided Drafting and Design, contact Wayne Jones at 972.377.1676
- Computer Information Systems, contact Elizabeth Pannell at 972.377.1605
- Computer Programming, contact Bill Slater at 972.881.5976
- Convergence Technology, contact Wayne Jones at 972.377.1676
- E-Business Media, contact Elizabeth Pannell at 972.377.1605
- Emergency Medical Services Professions, contact Pat McAuliff at 972.548.6836
- Fire Science, contact Pat McAuliff at 972.548.6836
- Interior and Architectural Design, contact Ali Kholdi at 972.377.1716
- Office Systems Technology, contact Mary Jane Tobaben at 972.881.5170

## ANIMATION

*Also a Marketable Skills Achievement Award Program*

### Department Chair:

Lupita Tinnen . . . . . SCC-K241 . . . . . 972.578.5527

### Academic Advisor:

John Ciccio . . . . . SCC-G148 . . . . . 972.578.5563

Torrey West . . . . . PRC-F132 . . . . . 972.377.1513

3-D Animation/Game Art and Animation – 3-D Animation emphasizes development of skills in the concept and execution of 3-D animation targeted toward the entertainment industry as well as advertising and corporate communication. Skills are developed in conceptualization, 2-D and 3-D computer graphics,

3-D animation techniques, and digital video compositing. Game Art and Animation emphasizes the development of 2-D/3-D artwork and animation skills for the computer gaming industry. Students also learn level design concepts and how to integrate high-end 3-D computer graphic files with software game engines.

Web-Interactive Media/Digital Video – Digital Video focuses on developing the concept, design, and production skills necessary for creating digital video content. Students learn how to create concept storyboards, work with video cameras and lighting, and edit video with current software tools. Web-Interactive Media is a quickly-evolving, field requiring both traditional and cutting-edge skills for content delivered online, through intranet networks or by digital media. Students in this program learn techniques in concept development, HTML/Javascript, interactive design, digital graphics preparation, animation, and interactive scripting.

### **AAS – 3-D ANIMATION / GAME ART AND ANIMATION**

72 credit hours

#### **FIRST YEAR**

##### **First Semester**

ARTC 1305 Basic Graphic Design  
 ARTC 1325 Introduction to Computer Graphics  
 ARTV 1211 Storyboard  
 ARTV 1345 3-D Modeling and Rendering I - Maya  
*ENGL 1301 Composition/Rhetoric I*  
 FLMC 1301 History of Animation Techniques

##### **Second Semester**

ARTC 1302 Digital Imaging I  
 ARTV 1341 3-D Animation I  
 ARTV 1343 Digital Sound  
 ARTV 2345 3-D Modeling and Rendering II - Maya  
 Technical Course \*

##### **Third Semester**

ARTS 1316 Drawing I  
 ARTV 2351 3-D Animation II - Maya  
*PHED/DANC Any activity course*  
 Technical Course \*  
 Technical Course \*

#### **SECOND YEAR**

##### **First Semester**

*ARTS 1301 Art Appreciation*  
 ARTV 2372 Advanced Character Rigging and Animation  
*MATH 1332 College Mathematics*  
*SPCH 1311 Fundamentals of Speech Communication*  
 Technical Course \*

##### **Second Semester**

ARTV 2335 Portfolio Development for Animation (Capstone)  
 FLMC 2331 Video Graphics and Visual Effects II  
*PSYC 2301 General Psychology*  
 Technical Course \*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

#### \* Technical Courses:

- If the student *emphasizes* 3-D Animation, they will take the following: ARTC 1353, ARTV 1303, ARTV 1351, FLMC 1331, and FLMC 2305.
- If the student emphasizes Game Art and Animation, they will take the following: COSC 1315, GAME 1303, GAME 1304, GAME 2359, and IMED 2301.

### **AAS – WEB-INTERACTIVE MEDIA/DIGITAL VIDEO SPECIALIZATION**

72 credit hours

#### **FIRST YEAR**

##### **First Semester**

ARTC 1305 Basic Graphic Design  
 ARTC 1325 Introduction to Computer Graphics  
 ARTV 1211 Storyboard  
 FLMC 1301 History of Animation Techniques  
 IMED 2301 Instructional Design  
 Technical Course \*

##### **Second Semester**

ARTC 1302 Digital Imaging I  
 ARTC 1353 Computer Illustration I  
 ARTV 1303 Basic Animation - Flash  
 ARTV 1343 Digital Sound  
*SPCH 1311 Fundamentals of Speech Communication*

##### **Third Semester**

ARTS 1316 Drawing I  
 IMED 1316 Web Design I  
*MATH 1332 College Mathematics*  
*PHED/DANC Any activity course*  
 Technical Course \*

#### **SECOND YEAR**

##### **First Semester**

*ARTS 1301 Art Appreciation*  
*ENGL 1301 Composition/Rhetoric I*  
 Technical Course \*  
 Technical Course \*  
 Technical Course \*

##### **Second Semester**

ARTC 2305 Digital Imaging II - Photoshop  
 ARTV 2335 Portfolio Development for Animation (Capstone)  
 IMED 2313 Project Analysis and Design  
*PSYC 2301 General Psychology*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

#### \* Technical Courses:

- If the student emphasizes Web-Interactive Media, they will take the following: ARTC 2311, ARTV 2301, ARTV 2330, ARTV 2373, and IMED 2315.
- If the student emphasizes Digital Video, they will take the following: ARTV 1351, ARTV 2341, DRAM 2366, FLMC 1331, and PHTC 1345.



## **CERTIFICATES**

### **3-D ANIMATION/GAME ART AND ANIMATION CERTIFICATE**

41 credit hours

#### **FIRST YEAR**

##### **First Semester**

ARTC 1325 Introduction to Computer Graphics  
ARTV 1211 Storyboard  
ARTV 1345 3-D Modeling and Rendering I - Maya

##### **Second Semester**

ARTC 1302 Digital Imaging I  
ARTV 1341 3-D Animation I  
ARTV 2345 3-D Modeling and Rendering II - Maya  
Technical Course \*

##### **Third Semester**

ARTV 2351 3-D Animation II - Maya  
Technical Course \*  
Technical Course \*

#### **SECOND YEAR**

##### **First Semester**

ARTV 2372 Advanced Character Rigging and Animation  
Technical Course \*

##### **Second Semester**

ARTV 2335 Portfolio Development for Animation (Capstone)  
Technical Course \*

##### \* Technical Courses:

- If the student emphasizes 3-D Animation, they will take the following: ARTV 1303, ARTV 1351, FLMC 1301, FLMC 1331, and IMED 2313.
- If the student emphasizes Game Art and Animation, they will take the following: COSC 1315, GAME 1303, GAME 1304, GAME 2359, and IMED 2301.

### **WEB-INTERACTIVE MEDIA/DIGITAL VIDEO CERTIFICATE**

41 credit hours

#### **FIRST YEAR**

##### **First Semester**

ARTC 1325 Introduction to Computer Graphics  
ARTV 1211 Storyboard  
FLMC 1301 History of Animation Techniques  
IMED 2301 Instructional Design  
Technical Course \*

##### **Second Semester**

ARTC 1302 Digital Imaging I  
ARTV 1303 Basic Animation - Flash

##### **Third Semester**

IMED 1316 Web Design I  
Technical Course \*

#### **SECOND YEAR**

##### **First Semester**

Technical Course \*  
Technical Course \*  
Technical Course \*

#### **Second Semester**

ARTV 2335 Portfolio Development for Animation (Capstone)  
IMED 2313 Project Analysis and Design

##### \* Technical Courses:

- If the student emphasizes Web-Interactive Media, they will take the following: ARTC 2311, ARTV 2301, ARTV 2330, ARTV 2373, and IMED 2315.
- If the student emphasizes Digital Video, they will take the following: ARTV 1351, ARTV 2341, DRAM 2366, FLMC 1331, and PHTC 1345.

## **MARKETABLE SKILLS ACHIEVEMENT AWARDS**

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

### ***MSAA – 3-D Animation***

14 credit hours

ARTV 1211 Storyboard  
ARTV 1341 3-D Animation I  
ARTV 1345 3-D Modeling and Rendering I – Maya  
Elective \*  
Elective \*

- \* Electives (6 credit hours): ARTC 1302, ARTV 2351, ARTV 2372, or FLMC 1331

### ***MSAA – Web-Interactive Media***

14 credit hours

ARTC 1302 Digital Imaging I  
ARTV 1211 Storyboard  
IMED 1316 Web Design I  
Elective \*  
Elective \*

- \* Electives (6 credit hours): ARTC 1353, ARTV 1303, ARTV 2301, or IMED 2315

## **APPLIED GRAPHIC DESIGN TECHNOLOGY**

*Also a Marketable Skills Achievement Award Program*

### ***Department Chair:***

Lupita Tinnen . . . . . SCC-K241 . . . . .972.578.5527

### ***Academic Advisor:***

John Ciccio . . . . . SCC-G148 . . . . .972.578.5563  
Torrey West . . . . . PRC-F132 . . . . .972.377.1513

**Applied Graphic Design Technology** - This program's emphasis is on traditional graphic design and art direction concepts while integrating the latest computer graphics techniques for print media. The emphasis is on those skills that best prepare students for careers in advertising, commercial art, and corporate communication.

**Commercial Photography** - The contemporary industry paradigm dictates a new breed of visual athlete. This program is designed to provide students with all the skills needed as well as a solid visual foundation. Included are intensive investigations into studio lighting, creative solutions, graphic design, and the digital production workflow.

**AAS – APPLIED GRAPHIC DESIGN TECHNOLOGY**

64 credit hours

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

ARTC 1325 Introduction to Computer Graphics  
 ARTC 2311 History of Communication Graphics

*ARTS 1301 Art Appreciation*

ARTS 1316 Drawing I

*ENGL 1301 Composition/Rhetoric I***Second Semester**

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

**Third Semester**

ARTC 1313 Digital Publishing I - InDesign  
 ARTC 1327 Typography

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

ARTC 1349 Art Direction I  
 ARTC 2313 Digital Publishing II - InDesign  
 ARTS 2356 Photography I  
*PHED/DANC Any activity course*  
*SPCH 1311 Fundamentals of Speech Communication*  
 Elective\*

**Second Semester**

ARTC 2335 Portfolio Development for Graphic Design (Capstone)  
 ARTC 2349 Art Direction II  
*MATH 1332 College Mathematics*  
*PSYC 2301 General Psychology*  
 Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

\* Electives (6 credit hours): ARTC 2301, ARTC 2305, ARTC 2340, ARTS 1311, ARTS 1317, ARTS 2311, ARTS 2316, ARTS 2333, FLMC 2305, or GRPH 1380

**AAS – COMMERCIAL PHOTOGRAPHY SPECIALIZATION**

66 credit hours

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

ARTC 1325 Introduction to Computer Graphics  
 ARTC 2311 History of Communication Graphics

*ARTS 1301 Art Appreciation*ARTS 2356 Photography I<sup>1</sup>

ARTV 1211 Storyboard

**Second Semester**

ARTC 1305 Basic Graphic Design  
 ARTC 1313 Digital Publishing I - InDesign  
*ENGL 1301 Composition/Rhetoric I*  
 PHTC 1300 Photo Digital Imaging I  
 Option 1\* Lighting Course

**Third Semester**

IMED 1316 Web Design I

*PHED/DANC Any activity course**SPCH 1311 Fundamentals of Speech Communication***SECOND YEAR****First Semester***MATH 1332 College Mathematics*

PHTC 2340 Photographic Studio Management

PHTC 2349 Photo Digital Imaging II

Option 2\*\* Creative Course

Elective\*\*\*

**Second Semester**

ARTC 2335 Portfolio Development for Graphic Design (Capstone)

ARTV 1351 Digital Video

*PSYC 2302 Applied Psychology*

Elective\*\*\*

Elective\*\*\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

1 May substitute PHTC 1311

\* Option 1 (Lighting course): PHTC 1345, PHTC 1353, or PHTC 2342

\*\* Option 2 (Creative course): PHTC 1325 or PHTC 1343

\*\*\* Electives (minimum of 9 credit hours): ARTC 1353, COMM 1316, or any PHTC (not listed above)

**CERTIFICATES****APPLIED GRAPHIC DESIGN TECHNOLOGY CERTIFICATE**

39 credit hours

**FIRST YEAR****Summer**

ARTS 1316 Drawing I

**First Semester**

ARTC 1321 Illustration Techniques I

ARTC 1325 Introduction to Computer Graphics

ARTC 2311 History of Communication Graphics

**Second Semester**

ARTC 1302 Digital Imaging I

ARTC 1305 Basic Graphic Design

ARTC 1353 Computer Illustration I

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

ARTC 1313 Digital Publishing I - InDesign

ARTC 1327 Typography

ARTC 1349 Art Direction I

**Second Semester**

ARTC 2313 Digital Publishing II - InDesign

ARTC 2335 Portfolio Development for Graphic Design (Capstone)

ARTC 2349 Art Direction II

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

## COMMERCIAL PHOTOGRAPHY CERTIFICATE

38-39 credit hours

### FIRST YEAR

#### First Semester

ARTC 1305 Basic Graphic Design

ARTC 1325 Introduction to Computer Graphics

ARTS 2356 Photography I<sup>1</sup>

#### Second Semester

ARTC 1313 Digital Publishing I - InDesign

IMED 1316 Web Design I

PHTC 1300 Photo Digital Imaging I

Option 1\* Lighting Course

### SECOND YEAR

#### First Semester

PHTC 2340 Photographic Studio Management

PHTC 2349 Photo Digital Imaging II

Option 2\*\* Creative Course

Elective\*\*\*

#### Second Semester

ARTC 2335 Portfolio Development for Graphic Design (Capstone)

ARTV 1351 Digital Video

1 Student may substitute PHTC 1311

\* Option 1 (Lighting course): PHTC 1345, PHTC 1353, or PHTC 2342

\*\* Option 2 (Creative course): PHTC 1325 or PHTC 1343

\*\*\* Elective: ARTC 1353 or ARTV 1211

## MARKETABLE SKILLS ACHIEVEMENT AWARDS

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

### MSAA – Applied Graphic Design Technology

12 credit hours

ARTC 1302 Digital Imaging I

ARTC 1313 Digital Publishing I – InDesign

ARTC 1353 Computer Illustration I

Elective \*

\* Elective (3 credit hours): ARTC 2305, ARTC 2313, or ARTC 2340

## BIOTECHNOLOGY

### Department Chair:

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

### Biotechnology Faculty Contact:

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

### Academic Advisor:

Ken Bogan . . . . . SCC-G140 . . . . .972.578.5564

Collin's Biotechnology Program prepares students for entry level positions in biological research and industrial laboratories.

Returning students can also benefit from the new methods and technologies related to agriculture, medicine, pharmaceuticals, and other applications.

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

### Career Opportunities

Biotechnology laboratory positions are available at colleges, universities, medical schools, and pharmaceutical and industrial companies. Additionally, other new occupations are rapidly developing in Texas and other parts of the nation. Positions currently within the biotechnology field include:

Biotechnology Production/QC Assistant/Technician

Biotechnology Research Assistant/Technician

Environmental Technical Work (Waste Products, Pollutants)

Federal Government Technical Work in Agriculture, Defense, and Interior Departments

Forensic Laboratory Assistant/Technician

Laboratory Management and Support Positions

Medical Research Assistant/Technician

Microbiological Research Assistant/Technician

Pharmaceutical Research Assistant/Technician

Technical Work in Manufacturing, Chemical, and Food Processing Industries

## AAS – BIOTECHNOLOGY

67 credit hours

### FIRST YEAR

#### First Semester

BIOL 1406 General Biology I

BIOL 1414 Introduction to Biotechnology

BITC 1402 Biotechnology Laboratory Methods and Techniques

CHEM 1411 General Chemistry I

*MATH 1342 Statistics<sup>1</sup>*

#### Second Semester

BIOL 1407 General Biology II<sup>2</sup>

BITC 2431 Cell Culture Techniques

CHEM 1412 General Chemistry II

*ENGL 1301 Composition/Rhetoric I*

#### Summer

*HUMA 1301 Introduction to the Humanities*

*PHED/DANC Any activity course*

Elective\*

### SECOND YEAR

#### First Semester

BCIS 1305 Business Computer Applications<sup>3</sup>

BIOL 2416 Genetics<sup>4</sup>

BITC 2411 Biotechnology Laboratory Instrumentation

*PSYC 2301 General Psychology*

#### Second Semester

BITC 1350 Special Studies and Bioethical Issues of Biotechnology

BITC 2387 Internship - Biology Technician/Biotechnology

Laboratory Technician (Capstone)

BITC 2441 Molecular Biology Techniques

*SPCH 1311 Fundamentals of Speech Communication<sup>5</sup>*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute MATH 1314
- 2 May substitute BIOL 1411, BIOL 2401, or BIOL 2404
- 3 May substitute COSC 1300
- 4 May substitute BIOL 2401, BIOL 2421, or CHEM 2423
- 5 Required: no options
- \* Elective (3 credit hours): BITC 2386, ENGL 2311, or ENVR 1401

*Note: A course will be counted only once – either as an elective or a requirement.*

## CERTIFICATE

### BIOTECHNOLOGY CERTIFICATE

29 credit hours

#### First Semester

BIOL 1406 General Biology I  
 BIOL 1414 Introduction to Biotechnology  
 BITC 1402 Biotechnology Laboratory Methods and Techniques  
 CHEM 1411 General Chemistry I

#### Second Semester

BIOL 2416 Genetics<sup>1</sup>  
 BITC 2386 Internship - Biology Technician/Biotechnology  
     Laboratory Technician (Capstone)  
 BITC 2441 Molecular Biology Techniques<sup>2</sup>  
 Elective\*

- 1 May substitute BIOL 2401, BIOL 2421, or CHEM 2423
- 2 May substitute BITC 2431
- \* Elective (3 credit hours): BCIS 1305, BIOL 2404, BITC 1350, COSC 1300, ENGL 2311, or ENVR 1401

*Note: A course will be counted only once – either as an elective or a requirement.*

## BUSINESS MANAGEMENT

#### Department Chair:

Gloria Cockerell . . . . . SCC-J247 . . . . . 972.881.5736

#### Academic Advisor:

Tom Bailey . . . . . PRC-F131 . . . . . 972.377.1771  
 Debra Lamb . . . . . SCC-G151 . . . . . 972.881.5165

Business management is no longer a field just for people who desire to be managers. Organizations are giving all individuals within their structures more responsibility than before and requiring more knowledge of them.

Collin's Business Management degree provides students the ability to relate with others, the skills to work in teams, the knowledge to initiate change, and the experience to solve problems in the workplace. Topics include basic management philosophies and theories, human resources management, human relations training, financial management, international business, 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.

The Criminal Justice specialization is designed for law enforcement officers who want to be promoted but lack sufficient transferable coursework in related fields. The program will prepare officers for promotion into supervision/ management positions. This specialization focuses on general academic study of criminal justice.

Through transfer agreements, students may earn associate of applied science (AAS) degrees with a Business Management major or a specialization in Criminal Justice from Collin and transfer to The University of North Texas (UNT) and earn bachelor of applied arts and sciences (BAAS) degrees and bachelor of applied technology (BAT) degrees.

Students planning to transfer to colleges or universities should check with Collin academic advisors prior to beginning this program to verify course transferability.

### Career Opportunities

This degree can apply to any field including government and public service whether for profit or not-for-profit.

### AAS – BUSINESS MANAGEMENT

61 credit hours

#### FIRST YEAR

##### First Semester

BMGT 1303 Principles of Management  
 BMGT 1307 High Performance Work Teams  
 COSC 1300 Computers and Technology  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities*

##### Second Semester

ACCT 2301 Financial Accounting  
 BMGT 1341 Business Ethics  
*ECON 1301 Introduction to Economics<sup>1</sup>*  
*MATH 1332 College Mathematics<sup>2</sup>*  
*PHED/DANC Any activity course*  
*SPCH 1311 Fundamentals of Speech Communication*

#### SECOND YEAR

##### First Semester

BMGT 1344 Negotiations and Conflict Management  
 BMGT 2310 Financial Management<sup>3</sup>  
 HRPO 2301 Human Resources Management  
 HRPO 2307 Organizational Behavior  
 ITSW 1304 Introduction to Spreadsheets - Excel

##### Second Semester

BMGT 2309 Leadership  
 BMGT 2311 Management of Change  
 BMGT 2341 Strategic Management  
 BMGT 2382 Cooperative Education - Business Administration and  
     Management, General (Capstone)  
 IBUS 1354 International Marketing Management

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

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



- 1 May substitute ECON 2301, ECON 2302, PSYC 2301, or PSYC 2302
- 2 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- 3 Prerequisite ACCT 2301

*Substitutions for WECM courses may be made only with written approval of the Department Chair.*

### **AAS – CRIMINAL JUSTICE SPECIALIZATION**

61 credit hours

#### **FIRST YEAR**

##### **First Semester**

BMGT 1303 Principles of Management  
 BMGT 1307 High Performance Work Teams  
 COSC 1300 Computers and Technology  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities*

##### **Second Semester**

BMGT 1341 Business Ethics  
 BMGT 1344 Negotiations and Conflict Management  
 CRIJ 1301 Introduction to Criminal Justice  
*MATH 1332 College Mathematics<sup>1</sup>*  
*SPCH 1311 Fundamentals of Speech Communication*

#### **SECOND YEAR**

##### **First Semester**

BMGT 2310 Financial Management  
 BUSI 2301 Business Law  
 CRIJ 1306 Court Systems and Practices  
 CRIJ 2323 Legal Aspects of Law Enforcement  
*PHED/DANC Any activity course*  
*PSYC 2302 Applied Psychology<sup>2</sup>*

##### **Second Semester**

BMGT 2309 Leadership  
 BMGT 2311 Management of Change  
 BMGT 2382 Cooperative Education - Business Administration and Management, General (Capstone)  
 CRIJ 1307 Crime in America  
 HRPO 2301 Human Resources Management

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- 2 May substitute PSYC 2301

*Substitutions for WECM courses may be made only with written approval of the Department Chair.*

## **CERTIFICATES**

### ***BUSINESS MANAGEMENT CERTIFICATE***

18 credit hours

#### **First Semester**

BMGT 1303 Principles of Management  
 BMGT 1305 Communications in Management  
 BMGT 1307 High Performance Work Teams

#### **Second Semester**

BMGT 2309 Leadership (Capstone)  
 BMGT 2311 Management of Change  
 BMGT 2341 Strategic Management

*Substitutions for WECM courses may be made only with written approval of the Department Chair.*

### ***CRIMINAL JUSTICE SPECIALIZATION***

18 credit hours

#### **First Semester**

CRIJ 1301 Introduction to Criminal Justice  
 CRIJ 1306 Court Systems and Practices  
 Elective\*

#### **Second Semester**

BMGT 2309 Leadership  
 BMGT 2382 Cooperative Education - Business Administration and Management, General (Capstone)  
 CRIJ 1307 Crime in America

\* Elective (3 credit hours): BMGT 1305 or BMGT 1341

*Substitutions for WECM courses may be made only with written approval of the Department Chair.*

### ***HUMAN RESOURCES MANAGEMENT SPECIALIZATION***

18 credit hours

#### **First Semester**

HRPO 1302 Human Resources Training and Development  
 HRPO 2301 Human Resources Management  
 HRPO 2304 Employee Relations

#### **Second Semester**

BMGT 1305 Communications in Management<sup>1</sup>  
 HRPO 2331 International Human Resources Management<sup>2</sup>  
 HRPO 2381 Cooperative Education - Human Resources Management/Personnel Administration, General (Capstone)

- 1 May substitute BMGT 1341
- 2 May substitute IBUS 1354

*Substitutions for WECM courses may be made only with written approval of the Department Chair.*

## CHILD DEVELOPMENT

*Also a Tech Prep Program*

*Also a Marketable Skills Achievement Award Program*

### Department Chair:

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

### Academic Advisor:

Jesus Gonzalez . . . . . SCC-G147 . . . . . 972.578.5562

The Child Development degree and certificate programs are designed to prepare individuals for entry-level positions working with young children and their families. The coursework can also be applicable as in-service training for teachers, administrators, nannies, and family day home providers. A developmental approach is emphasized which promotes optimal physical, social, emotional, and cognitive growth of children. Students learn management skills that allow them to provide quality programs in safe, nurturing environments.

The Child Development Associate (CDA) program provides performance-based training, assessment, and credentialing of childcare professionals who work with children from birth through age five. These caregivers demonstrate their ability to nurture children's physical, social, emotional, and intellectual growth in a child development framework.

Students planning to transfer to a college or university should check with the Collin academic advisor prior to beginning this program. Tech Prep students who took collegiate-level courses in Child Development while in high school may elect to receive college credit by contacting the Global EDGE office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

### NOTES:

*TECA is the prefix for transfer courses.*

*All CDEC and TECA courses, except TECA 1354, require the student to complete a one-hour lab component.*

*See Associate of Arts in Teaching (AAT) on pages 67-68.*

### Program Requirements:

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

1. Enroll in a Collin child development course.
2. Within the first week of the first child development course, provide a copy of acceptable tuberculosis test results. Continuing students must submit acceptable tuberculosis results every year.
3. Complete and sign a student record form as a contract to ensure the following:
  - Verification that the student has read and agrees to abide by the Texas Minimum Standards for day care centers
  - Verification that the student has read and agrees to follow the laboratory student guidelines
  - Information provided to a criminal history check by the Texas Department of Protective and Regulatory Services

- Confirmation that confidentiality and professional discretion will be observed at all times
- Notarized affidavit
- Personal release for videotaping for instructional purposes

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

### Career Opportunities

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

- Before and After School Programs
- Child Care Centers
- Church-sponsored Child Care
- Community Center Programs
- Corporate-sponsored Child Care
- Early Childhood Intervention Programs
- Early Childhood Life Specialist
- Employer-sponsored Child Care
- Family Day Homes
- Hospital-sponsored Child Care
- Infant/Toddler Programs
- In-Home Care Giver or Nanny
- Parent and Child Study Programs
- Preschool Programs
- Public School Paraprofessional/Teacher's Aide

## AAS – CHILD DEVELOPMENT

62 credit hours

### FIRST YEAR

#### First Semester

- CDEC 1319 Child Guidance<sup>1</sup>
- CDEC 1323 Observation and Assessment
- ENGL 1301 Composition/Rhetoric I
- TECA 1311 Educating Young Children
- TECA 1354 Child Growth and Development

#### Second Semester

- CDEC 2326 Administration of Programs for Children I
- PHED/DANC Any activity course
- PSYC 2302 Applied Psychology
- SPCH 1311 Fundamentals of Speech Communication
- TECA 1303 Family, School, and Community
- Elective\*\*

### SECOND YEAR

#### First Semester

- CDEC 1313 Curriculum Resources for Early Childhood Programs<sup>1</sup>
- CDEC 2304 Child Abuse and Neglect
- CDEC 2328 Administration of Programs for Children II

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

COSC 1300 Computers and Technology  
TECA 1318 Wellness of the Young Child  
Elective\*\*

#### **Second Semester**

CDEC 2166 Practicum - Child Care Provider/Assistant (Capstone)  
CDEC 2336 Administration of Programs for Children III  
*HUMA 1301 Introduction to the Humanities*  
*MATH 1332 College Mathematics*  
Elective\*\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

1 Tech Prep course which may have been completed in high school

\*\* Electives (9 credit hours): CDEC 1317, CDEC 1330, CDEC 1356, CDEC 1358, CDEC 1359, CDEC 1392, CDEC 1394, CDEC 1396, CDEC 2307, CDEC 2315, CDEC 2322, CDEC 2324, CDEC 2341<sup>1</sup>, or CDEC 2385

### **CERTIFICATES**

#### **CHILD DEVELOPMENT CERTIFICATE**

28 credit hours

##### **First Semester**

CDEC 1313 Curriculum Resources for Early Childhood Programs<sup>1</sup>  
CDEC 1323 Observation and Assessment  
TECA 1311 Educating Young Children  
TECA 1318 Wellness of the Young Child  
TECA 1354 Child Growth and Development

##### **Second Semester**

CDEC 1319 Child Guidance<sup>1</sup>  
CDEC 1335 Early Childhood Development: 3-5 Years<sup>1</sup>  
CDEC 1359 Children with Special Needs  
CDEC 2166 Practicum - Child Care Provider/Assistant (Capstone)  
TECA 1303 Family, School, and Community

1 Tech Prep course which may have been completed in high school

#### **CHILD DEVELOPMENT ASSOCIATE CERTIFICATE**

16 credit hours

##### **First Semester**

CDEC 1317 Child Development Associate Training I  
CDEC 2166 Practicum - Child Care Provider/Assistant (Capstone)  
CDEC 2322 Child Development Associate Training II  
CDEC 2324 Child Development Associate Training III  
TECA 1318 Wellness of the Young Child  
TECA 1354 Child Growth and Development

#### **EARLY CHILDHOOD ADMINISTRATOR SPECIALIZATION**

28 credit hours

##### **First Semester**

CDEC 1323 Observation and Assessment  
CDEC 2326 Administration of Programs for Children I  
TECA 1311 Educating Young Children  
TECA 1318 Wellness of the Young Child  
TECA 1354 Child Growth and Development

#### **Second Semester**

CDEC 2166 Practicum - Child Care Provider/Assistant (Capstone)  
CDEC 2304 Child Abuse and Neglect  
CDEC 2328 Administration of Programs for Children II  
CDEC 2336 Administration of Programs for Children III  
TECA 1303 Family, School, and Community

#### **EARLY CHILDHOOD SPECIAL EDUCATOR SPECIALIZATION**

28 credit hours

##### **First Semester**

CDEC 1319 Child Guidance<sup>1</sup>  
CDEC 1323 Observation and Assessment  
CDEC 1359 Children with Special Needs  
TECA 1311 Educating Young Children  
TECA 1354 Child Growth and Development

##### **Second Semester**

CDEC 2166 Practicum - Child Care Provider/Assistant (Capstone)  
CDEC 2304 Child Abuse and Neglect  
CDEC 2340 Instructional Techniques for Children with Special Needs  
TECA 1303 Family, School, and Community  
TECA 1318 Wellness of the Young Child

1 Tech Prep course which may have been completed in high school

#### **INFANT AND TODDLER EDUCATOR SPECIALIZATION**

28 credit hours

##### **First Semester**

CDEC 1321 The Infant and Toddler  
CDEC 1323 Observation and Assessment  
CDEC 2304 Child Abuse and Neglect  
TECA 1303 Family, School, and Community  
TECA 1311 Educating Young Children

##### **Second Semester**

CDEC 1339 Early Childhood Development: 0-3 Years  
CDEC 1359 Children with Special Needs  
CDEC 2166 Practicum - Child Care Provider/Assistant (Capstone)  
TECA 1318 Wellness of the Young Child  
TECA 1354 Child Growth and Development

#### **SCHOOL-AGE EDUCATOR SPECIALIZATION**

25 credit hours

##### **First Semester**

CDEC 2341 The School Age Child<sup>1</sup>  
TECA 1311 Educating Young Children  
TECA 1318 Wellness of the Young Child  
TECA 1354 Child Growth and Development

##### **Second Semester**

CDEC 1319 Child Guidance<sup>1</sup>  
CDEC 1330 Growth and Development: 6-14 Years  
CDEC 1359 Children with Special Needs  
CDEC 2166 Practicum - Child Care Provider/Assistant (Capstone)  
TECA 1303 Family, School, and Community

1 Tech Prep course which may have been completed in high school

**TEACHER ASSISTANT SPECIALIZATION**

16 credit hours

**First Semester**

CDEC 1330 Growth and Development: 6-14 Years  
 CDEC 1356 Emergent Literacy for Early Childhood  
 CDEC 1359 Children with Special Needs  
 CDEC 2166 Practicum - Child Care Provider/Assistant (Capstone)  
 CDEC 2307 Math and Science for Early Childhood  
 CDEC 2341 The School Age Child<sup>1</sup>

1 Tech Prep course which may have been completed in high school

**MARKETABLE SKILLS ACHIEVEMENT AWARDS**

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

**MSAA – CHILD DEVELOPMENT ADMINISTRATION OF PROGRAMS FOR CHILDREN**

9 credit hours

CDEC 2326 Administration of Programs for Children I  
 CDEC 2328 Administration of Programs for Children II  
 CDEC 2336 Administration of Programs for Children III

**MSAA – CHILD DEVELOPMENT ASSOCIATE TRAINING**

9 credit hours

CDEC 1317 Child Development Associate Training I  
 CDEC 2322 Child Development Associate Training II  
 CDEC 2324 Child Development Associate Training III

**COMPUTER-AIDED DRAFTING AND DESIGN***Also a Tech Prep Program**Also a Marketable Skills Achievement Award Program***Program Director:**

Wayne Jones . . . . . PRC-H213 . . . . . 972.377.1676

**Computer-Aided Drafting and Design Faculty Contact:**

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

**Academic Advisor:**

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

High-tech industries are constantly creating new career opportunities in exciting, highly specialized fields. The degree opportunities in Computer-Aided Drafting and Design (CADD) provide both an educational foundation in computer-aided design and insight into current industry practices. Students in

Collin's intensive CADD hands-on training program are taught the skills a designer, CADD operator, architect, or engineer needs for successful CADD operations.

Students planning to transfer to a college or university should check with the Collin academic advisor prior to beginning this program to verify course transferability. Tech Prep students who took collegiate-level courses in CADD while in high school may elect to receive college credit by contacting the Global EDGE office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

**Career Opportunities**

Enjoy a profitable career in a modern business environment. Expanding job market possibilities related to drafting and design are available in:

Aircraft Industry  
 Architectural Firms  
 Computer Centers  
 Electronics Firms  
 Governmental Agencies  
 Manufacturing Firms  
 Printed Circuit Board Design Companies  
 Research Organizations  
 Semiconductor Manufacturing Firms  
 Telecommunications Industry

**AAS – COMPUTER-AIDED DRAFTING AND DESIGN**

61 credit hours

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

DFTG 1309 Basic Computer-Aided Drafting<sup>1</sup>  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1314 College Algebra<sup>2</sup>*  
 PHYS 1401 General Physics I  
*SPCH 1311 Fundamentals of Speech Communication*

**Second Semester**

DFTG 1305 Technical Drafting<sup>1</sup>  
 DFTG 2319 Intermediate Computer-Aided Drafting<sup>1</sup>  
 MATH 1316 Trigonometry  
 PHYS 1402 General Physics II

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

CETT 1409 DC-AC Circuits  
 DFTG 2332 Advanced Computer-Aided Drafting  
*HUMA 1301 Introduction to the Humanities*  
*PHED/DANC Any activity course*  
 Elective\*  
 Elective\*

**Second Semester**

DFTG 2336 Computer-Aided Drafting Programming  
 DFTG 2381 Cooperative Education - Drafting and Design  
     Technology/Technician, General (Capstone)  
*ECON 1301 Introduction to Economics*  
 Elective\*  
 Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school  
 2 College Algebra level or higher required  
 \* Electives (12 credit hours): ARCE 2352, BMGT 2331, BUSI 1301, BUSI 2301, DFTG 1317, DFTG 1345, DFTG 1358, DFTG 1371, DFTG 1373, DFTG 1380, DFTG 2312, DFTG 2328, DFTG 2335, or ENGL 2311



## **AAS – INTEGRATED CIRCUIT DESIGN AND LAYOUT SPECIALIZATION**

63 credit hours

### **FIRST YEAR**

#### **First Semester**

CETT 1403 DC Circuits

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

*ENGL 1301 Composition/Rhetoric I*

*HUMA 1301 Introduction to the Humanities*

*MATH 1314 College Algebra<sup>2</sup>*

#### **Second Semester**

CETT 1325 Digital Fundamentals

DFTG 1358 Electrical/Electronics Drafting

DFTG 2413 Basic Integrated Circuit Design

*PHED/DANC Any activity course*

SMFT 1343 Semiconductor Manufacturing Technology I

#### **Summer**

DFTG 13045 Technical Drafting<sup>3</sup>

*ECON 1301 Introduction to Economics*

### **SECOND YEAR**

#### **First Semester**

CETT 1405 AC Circuits

CETT 1421 Electronic Fabrication

DFTG 2305 Printed Circuit Board Design

DFTG 2433 Advanced Integrated Circuit Design

ITSC 1316 Linux Installation and Configuration

#### **Second Semester**

DFTG 2371 Integrated Circuit Design Verification, Cell Libraries, and Mixed Signal Layout (Capstone)

*SPCH 1311 Fundamentals of Speech Communication*

Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 College Algebra level or higher required
- 3 May substitute ENGR 1304
- \* Elective (3 credit hours): DFTG 1317, DFTG 1373, DFTG 1380, DFTG 2300, DFTG 2332, DFTG 2336, DFTG 2356, or EECT 1448

## **CERTIFICATES**

### **COMPUTER-AIDED DRAFTING AND DESIGN CERTIFICATE**

30 credit hours

#### **FIRST YEAR**

##### **First Semester**

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

##### **Second Semester**

DFTG 1305 Technical Drafting<sup>1</sup>

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

#### **SECOND YEAR**

##### **First Semester**

DFTG 2312 Technical Illustration

DFTG 2332 Advanced Computer-Aided Drafting

Elective\*

#### **Second Semester**

DFTG 1373 3-D Studio Max

DFTG 2336 Computer-Aided Drafting Programming (Capstone)

Elective\*

Elective\*

- 1 Tech Prep course which may have been completed in high school
- \* Electives (9 credit hours): ARCE 1321, ARCE 1352, ARCE 2352, DFTG 1317, DFTG 1345, DFTG 1380, DFTG 2300, DFTG 2317, DFTG 2321, DFTG 2328, DFTG 2335, DFTG 2350, or DFTG 2381

## **AUTOCAD SPECIALIZATION**

15 credit hours

### **FIRST YEAR**

#### **First Semester**

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

#### **Second Semester**

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

### **SECOND YEAR**

#### **First Semester**

DFTG 1373 3-D Studio Max

DFTG 2332 Advanced Computer-Aided Drafting

DFTG 2336 Computer-Aided Drafting Programming (Capstone)

- 1 Tech Prep course which may have been completed in high school

## **INTEGRATED CIRCUIT DESIGN AND LAYOUT CERTIFICATE**

34 credit hours

#### **First Semester**

CETT 1403 DC Circuits

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

DFTG 1358 Electrical/Electronics Drafting

DFTG 2413 Basic Integrated Circuit Design

#### **Second Semester**

CETT 1325 Digital Fundamentals

DFTG 2305 Printed Circuit Board Design

ITSC 1316 Linux Installation and Configuration

SMFT 1343 Semiconductor Manufacturing Technology I

#### **Summer**

CETT 1405 AC Circuits

DFTG 2433 Advanced Integrated Circuit Design (Capstone)

- 1 Tech Prep course which may have been completed in high school

## **ENHANCED SKILLS CERTIFICATE - CADD**

9 credit hours

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

Prerequisite: Completion of the AAS in Computer-Aided Drafting and Design.

#### **First Semester**

DFTG 1345 Parametric Modeling and Design

DFTG 1373 3-D Studio Max<sup>1</sup>

DFTG 2312 Technical Illustration

- 1 May substitute DFTG 2335

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

## MARKETABLE SKILLS ACHIEVEMENT AWARDS

### MSAA – AUTOCAD

9 credit hours

This program prepares students to design and draft in 2 dimensions and 3 dimensions. Also, students will be taught how to customize AutoCAD to enhance productivity.

Prerequisite: Basic computer skills. Having working knowledge of geometry will be a plus for students.

#### Career Options:

This program prepares students for job opportunities such as the following:

- Draftsman for a wide range of industries
- Graduate engineers and architects who need to update of add CADD skills to their capabilities

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

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

DFTG 2332 Advanced Computer-Aided Drafting

1 Tech Prep course which may have been completed in high school

### MSAA – INTEGRATED CIRCUIT DESIGN AND LAYOUT

9 credit hours

This program provides specific training in integrated circuit design and layout in preparation for work in the semiconductor industry. Mentor Graphics software is the tool utilized in this program.

Prerequisite: Training or industrial experience in electronics.

#### Career Options:

This program prepares students for job opportunities such as the following:

- Working for semiconductor companies as an integrated circuit design and layout technician
- Graduate engineers who are interested in a new career path

DFTG 1358 Electrical/Electronics Drafting

DFTG 2413 Basic Integrated Circuit Design

DFTG 2433 Advanced Integrated Circuit Design

## COMPUTER INFORMATION SYSTEMS

Also a Tech Prep Program

Also a Marketable Skills Achievement Award Program

#### Department Chair:

Elizabeth Pannell . . . . . PRC-H111 . . . . . 972.377.1605

#### Academic Advisor:

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

Computer Information Systems is an exciting field that presents many opportunities for a student who is proficient in both applications and computer systems. The rapid spread of computers and information technology has generated a need for highly trained workers to design and develop new information

systems that use these technologies to meet the needs of the business organization. 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. These skills include planning and developing new computer systems while applying the resources of existing systems to additional operations.

This degree program offers specializations in computer systems and computer applications. Areas of study include business applications, business programming, management skills, computer applications, and technical skills. The degree can provide a broad business background and professional skills needed to succeed in a career in information technologies.

Two certificates are offered, which can be applied toward the AAS degree. The certificates provide the knowledge to update current job requirements. After successfully completing a certificate, students can continue to toward an AAS degree in Computer Information Systems.

Two Marketable Skills Achievement Awards are also offered, providing quick acknowledgement of success with minimum coursework. After successfully completing an award, students can continue to work toward a certificate and then an AAS degree.

Tech Prep students who took collegiate-level courses in computer information systems while in high school may elect to receive college credit by contacting the Global EDGE office.

A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

#### Career Options:

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

- Computer Applications Specialist
- Computer Systems Analyst
- Computer Systems Specialist
- Computer Systems Design Specialist

### AAS – COMPUTER INFORMATION SYSTEMS

65 credit hours

#### FIRST YEAR

##### First Semester

BCIS 1305 Business Computer Applications

ENGL 1301 Composition/Rhetoric I

HUMA 1301 Introduction to the Humanities

IMED 1301 Introduction to Multimedia<sup>1</sup>

MATH Any 1XXX or 2XXX college-level mathematics course

##### Second Semester

COSC 1315 Fundamentals of Programming<sup>2</sup>

CPMT 1411 Introduction to Computer Maintenance<sup>1</sup>

ITSE 1311 Beginning Web Programming

ITSW 1304 Introduction to Spreadsheets - Excel

PHED/DANC Any activity course

##### Summer

ECON 1301 Introduction to Economics<sup>3</sup>

SPCH 1311 Fundamentals of Speech Communication

## SECOND YEAR

### First Semester

BCIS 2390 Systems Analysis and Design  
ENGL 2311 Technical and Business Writing  
ITNW 1358 Network+  
ITSW 1307 Introduction to Database - Access  
Elective\*

### Second Semester

GISC 1311 Introduction to Geographic Information Systems (GIS)  
IMED 2309 Internet Commerce  
ITSC 2380 Cooperative Education - Computer and Information Sciences, General (Capstone)<sup>4</sup>  
ITSY 1300 Fundamentals of Information Security OR ITSY 2300 Operating System Security  
Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 May substitute COSC 1436 or ITSE 1332
- 3 May substitute ECON 2301 or ECON 2302
- 4 May substitute INEW 2330
- \* Electives (6 credit hours): Any COSC, IMED, ITSC, ITSE, ITSW, or ITSY course not listed above, except ITSC 1380, ITSE 1380, ITSE 2380, ITSW 1380, or ITSW 2380

## AAS – COMPUTER APPLICATIONS SPECIALIZATION

65 credit hours

### FIRST YEAR

#### First Semester

BCIS 1305 Business Computer Applications  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities*  
IMED 1301 Introduction to Multimedia<sup>1</sup>  
*MATH Any IXXX or 2XXX college-level mathematics course*

#### Second Semester

COSC 1315 Fundamentals of Programming<sup>2</sup>  
ITSE 1301 Web Design Tools - Graphics  
ITSE 1311 Beginning Web Programming  
ITSW 1304 Introduction to Spreadsheets - Excel  
ITSW 1307 Introduction to Database - Access  
*PHED/DANC Any activity course*

#### Summer

*ECON 1301 Introduction to Economics<sup>3</sup>*  
*SPCH 1311 Fundamentals of Speech Communication*

## SECOND YEAR

### First Semester

ENGL 2311 Technical and Business Writing  
GISC 1311 Introduction to Geographic Information Systems (GIS)<sup>4</sup>  
ITNW 1358 Network+  
ITSE 1431 Introduction to Visual Basic Programming [.NET]<sup>5</sup>  
Elective\*

### Second Semester

BCIS 2390 Systems Analysis and Design  
ITSC 2380 Cooperative Education - Computer and Information Sciences, General (Capstone)<sup>6</sup>  
ITSE 2313 Web Authoring - Dreamweaver  
Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 May substitute COSC 1436 or ITSE 1332
- 3 May substitute ECON 2301 or ECON 2302
- 4 May substitute GRPH 1359
- 5 May substitute ITSE 2309
- 6 May substitute INEW 2330
- \* Electives (6 credit hours): Any COSC, IMED, ITSC, ITSE, ITSW, or ITSY course not listed above, except ITSC 1380, ITSE 1380, ITSE 2380, or ITSW 1380

## CERTIFICATES

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

### APPLICATIONS PROGRAMMING CERTIFICATE

31 credit hours

#### First Semester

BCIS 1305 Business Computer Applications  
COSC 1315 Fundamentals of Programming<sup>1</sup>  
ITNW 1358 Network+  
ITSE 1311 Beginning Web Programming  
ITSW 1307 Introduction to Database - Access

#### Second Semester

INEW 2334 Advanced Web Programming - ASP.NET2 (Capstone)  
ITSE 1431 Introduction to Visual Basic Programming [.NET]<sup>1</sup>  
ITSE 2302 Intermediate Web Programming  
ITSE 2309 Database Programming - SQL  
ITSW 1304 Introduction to Spreadsheets - Excel

- 1 May substitute any of the following not already used:  
COSC 1436, COSC 1437, ITSE 1344, or ITSE 1332
- 2 May substitute ITSE 2349

### COMPUTER APPLICATIONS CERTIFICATE

30 credit hours

#### First Semester

BCIS 1305 Business Computer Applications  
IMED 1301 Introduction to Multimedia<sup>1</sup>  
ITSE 1311 Beginning Web Programming  
ITSW 1304 Introduction to Spreadsheets - Excel  
Computer Graphics Course<sup>2</sup>

#### Second Semester

BCIS 2390 Systems Analysis and Design (Capstone)  
GISC 1311 Introduction to Geographic Information Systems (GIS)

ITNW 1358 Network+  
 ITSE 2313 Web Authoring - Dreamweaver  
 ITSW 1307 Introduction to Database - Access

- 1 Tech Prep course which may have been completed in high school
- 2 Computer Graphics Course. Take one of the following: GRPH 1359, IMED 1345, or ITSE 1301

### **MARKETABLE SKILLS ACHIEVEMENT AWARDS**

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

#### **MSAA – COMPUTER APPLICATIONS**

9 credit hours

BCIS 1305 Business Computer Applications  
 ITSW 1304 Introduction to Spreadsheets - Excel  
 ITSW 1307 Introduction to Database - Access

#### **MSAA – DATABASE APPLICATIONS**

9 credit hours

ITSE 1356 Extensible Markup Language (XML)  
 ITSE 2309 Database Programming - SQL  
 ITSW 1307 Introduction to Database - Access

### **COMPUTER NETWORKING TECHNOLOGY**

*Also a Tech Prep Program*

*Also a Marketable Skills Achievement Award Program*

#### **Program Director:**

Wayne Jones . . . . . PRC-H213 . . . . . 972.377.1676

#### **Academic Advisor:**

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

The Computer Networking Technology program prepares graduates who will be able to design and install secure network systems based on customer requirements, monitor and maintain network traffic and security, and maintain network hardware and software. Courses and hands-on labs in this program will assist the graduate in preparing to take a variety of Cisco, Microsoft, and CompTIA certification examinations.

Students planning to transfer to a college or university should check with the Collin academic advisor prior to beginning this program. Tech Prep students who took collegiate-level courses in computer networking technology while in high school may elect to receive college credit by contacting the Global EDGE office.

A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

#### **Career Opportunities**

Computer Networking Technology is a fast-growing and high demand field and includes career opportunities in the following areas:

Cybersecurity Analyst  
 Security Administrator  
 Equipment Repair

Hardware/Software Installation  
 Network Management  
 Technical Support

#### **AAS – COMPUTER NETWORKING TECHNOLOGY**

69 credit hours

*All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions.*

#### **FIRST YEAR**

##### **First Semester**

*ENGL 1301 Composition/Rhetoric I*

ITMT 1300 Implementing and Supporting Microsoft Windows XP Professional

ITNW 1358 Network+

ITNW 1454 Implementing and Supporting Servers

*MATH 1314 College Algebra<sup>1</sup>*

*PHED/DANC Any activity course*

##### **Second Semester**

CPMT 1411 Introduction to Computer Maintenance<sup>2</sup>

ITCC 1302 CCNA 1: Networking Basics<sup>2</sup>

ITNW 2471 Implementing, Managing, and Maintaining a Microsoft Windows 2003 Environment

ITSC 1316 Linux Installation and Configuration

##### **Summer**

*ECON 1301 Introduction to Economics*

ITCC 1306 CCNA 2: Router and Routing Basics<sup>2</sup>

#### **SECOND YEAR**

##### **First Semester**

ITMT 1455 Planning, Implementing, and Maintaining a Microsoft Server 2003 Network Infrastructure

ITMT 2400 Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure

ITMT 2446 Implementing and Administering Security in a Microsoft Windows Server 2003 Network

*SPCH 1311 Fundamentals of Speech Communication*

##### **Second Semester**

*HUMA 1301 Introduction to the Humanities*

ITMT 2440 Designing Security for Microsoft Networks

ITSY 2300 Operating System Security (Capstone)

Elective\*

Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

1 College Algebra level or higher required

2 Tech Prep course which may have been completed in high school

\* Electives (7 credit hours): Any ITCC, ITMC, ITMT, ITNW, or ITSY course not listed above with approval of Program Director

#### **AAS – CISCO SYSTEMS NETWORKING SPECIALIZATION**

66 credit hours

*All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions.*

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



## FIRST YEAR

### First Semester

ENGL 1301 Composition/Rhetoric I

ITCC 1302 CCNA 1: Networking Basics<sup>1</sup>

ITCC 1306 CCNA 2: Router and Routing Basics<sup>1</sup>

ITNW 1358 Network+

MATH 1314 College Algebra<sup>2</sup>

### Second Semester

CPMT 1411 Introduction to Computer Maintenance<sup>1</sup>

ITCC 1342 CCNA 3: Switching Basic and Intermediate Routing<sup>1</sup>

ITCC 1346 CCNA 4: Wide Area Network (WAN) Technologies<sup>1</sup>

ITNW 1454 Implementing and Supporting Servers

### Summer

ECON 1301 Introduction to Economics

HUMA 1301 Introduction to the Humanities

## SECOND YEAR

### First Semester

ITCC 2432 CCNP 1: Advanced Routing<sup>1</sup>

ITCC 2436 CCNP 2: Remote Access<sup>1</sup>

ITNW 2471 Implementing, Managing, and Maintaining a Microsoft Windows 2003 Environment

ITSY 2300 Operating System Security

SPCH 1311 Fundamentals of Speech Communication

### Second Semester

ITCC 2440 CCNP 3: Multilayer Switching<sup>1</sup>

ITCC 2444 CCNP 4: Internetwork Troubleshooting<sup>1</sup> (Capstone)

ITNW 1449 Cisco Fundamentals of Network Security

PHED/DANC Any activity course

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

1 Tech Prep course which may have been completed in high school

2 College Algebra level or higher required

## CERTIFICATES

### ADVANCED CISCO SYSTEMS NETWORKING (CCNP) CERTIFICATE

28 credit hours

*All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions.*

## FIRST YEAR

### First Semester

ITCC 1302 CCNA 1: Networking Basics<sup>1</sup>

ITCC 1306 CCNA 2: Router and Routing Basics<sup>1</sup>

### Second Semester

ITCC 1342 CCNA 3: Switching Basic and Intermediate Routing<sup>1</sup>

ITCC 1346 CCNA 4: Wide Area Network (WAN) Technologies<sup>1</sup>

## SECOND YEAR

### First Semester

ITCC 2432 CCNP 1: Advanced Routing<sup>1</sup>

ITCC 2436 CCNP 2: Remote Access<sup>1</sup>

### Second Semester

ITCC 2440 CCNP 3: Multilayer Switching<sup>1</sup>

ITCC 2444 CCNP 4: Internetwork Troubleshooting<sup>1</sup> (Capstone)

1 Tech Prep course which may have been completed in high school

## COMPUTER NETWORKING TECHNOLOGY SOFTWARE (MCSA)

### CERTIFICATE

18 credit hours

*All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions*

### First Semester

ITMT 1300 Implementing and Supporting Microsoft Windows XP Professional

ITNW 1358 Network+

### Second Semester

ITNW 1454 Implementing and Supporting Servers

ITNW 2471 Implementing, Managing, and Maintaining a Microsoft Windows 2003 Environment (Capstone)

Elective\*

\* Elective (4 credit hours): ITMT 2403, ITMT 2446, or ITMT 2450

## COMPUTER NETWORKING TECHNOLOGY ADVANCED SOFTWARE (MCSE) SPECIALIZATION

29 credit hours

*All ITCC, ITMC, ITMT, ITNW and ITSY courses are offered in eight-week express sessions.*

### First Semester

ITMT 1300 Implementing and Supporting Microsoft Windows XP Professional

ITNW 1358 Network+

ITNW 1454 Implementing and Supporting Servers

ITNW 2471 Implementing, Managing, and Maintaining a Microsoft Windows 2003 Environment

### Second Semester

ITMT 1455 Planning, Implementing, and Maintaining a Microsoft Server 2003 Network Infrastructure

ITMT 2400 Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure (Capstone)

ITMT 2440 Designing Security for Microsoft Networks

Elective\*

\* Elective (3 credit hours): Any ITCC, ITMC, ITMT, ITNW, or ITSY course not listed above with approval of Program Director

## MARKETABLE SKILLS ACHIEVEMENT AWARDS

### MSAA – CISCO SYSTEMS NETWORKING (CCNA)

12 credit hours

*All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions*

ITCC 1302 CCNA 1: Networking Basics<sup>1</sup>

ITCC 1306 CCNA 2: Router and Routing Basics<sup>1</sup>

ITCC 1342 CCNA 3: Switching Basic and Intermediate Routing<sup>1</sup>

ITCC 1346 CCNA 4: Wide Area Network (WAN) Technologies<sup>1</sup>

1 Tech Prep course which may have been completed in high school

## COMPUTER PROGRAMMING

*Also a Tech Prep Program*

*Also a Marketable Skills Achievement Award Program*

### Department Chair:

Bill Slater . . . . . SCC-J126. . . . . 972.881.5976

### Academic Advisor:

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

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

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

Several certificates are offered which can be applied toward the AAS degree. The certificates provide the knowledge to update current job requirements. After successfully completing one or more certificates, students can continue at Collin and receive an AAS degree in Computer Programming.

Students planning to transfer to another college or university should check with a Collin academic advisor prior to beginning this program to verify course transferability. Tech Prep students who took collegiate-level courses in computer programming while in high school may elect to receive college credit by contacting the Global EDGE office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

### Career Opportunities

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

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

### AAS – SOFTWARE DEVELOPMENT

66 credit hours

#### FIRST YEAR

##### First Semester

- COSC 1300 Computers and Technology
- COSC 1436 Programming Fundamentals I - C++
- ENGL 1301 Composition/Rhetoric I
- HUMA 1301 Introduction to the Humanities
- MATH 1314 College Algebra<sup>1</sup>

#### Second Semester

- COSC 1437 Programming Fundamentals II - C++
- COSC 2325 Computer Organization and Machine Language
- ITSW 1307 Introduction to Database - Access<sup>2</sup>
- MATH 2312 Pre-Calculus
- SPCH 1311 Fundamentals of Speech Communication*

##### Summer

- COSC 2336 Programming Fundamentals III - C++
- ECON 1301 Introduction to Economics*

## SECOND YEAR

#### First Semester

- ENGL 2311 Technical and Business Writing
- ITSE 1330 Introduction to C# Programming
- ITSE 2301 Windows Programming Using C++
- PHED/DANC Any activity course*
- Elective\*
- Elective\*

#### Second Semester

- GAME 2342 Game Development Using C++
- INEW 2340 Object-Oriented Design
- ITSE 2317 Java Programming
- ITSE 2380 Cooperative Education - Computer Programming/Programmer, General (Capstone)<sup>3</sup>

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 College Algebra level or higher required
  - 2 Tech Prep course which may have been taken in high school
  - 3 May substitute INEW 2330
- \* Electives (6 credit hours): BCIS 2390, ITSE 2309<sup>2</sup>, ITSE 2347, any Java class higher than ITSE 2317, any Visual Basic class higher than ITSE 1332, or any C# class higher than ITSE 1330

### AAS – JAVA SPECIALIZATION

66 credit hours

#### FIRST YEAR

##### First Semester

- COSC 1300 Computers and Technology
- COSC 1436 Programming Fundamentals I - C++
- ENGL 1301 Composition/Rhetoric I*
- HUMA 1301 Introduction to the Humanities*
- MATH 1314 College Algebra<sup>1</sup>*

##### Second Semester

- COSC 1337 Programming Fundamentals II - Java
- COSC 2325 Computer Organization and Machine Language
- ITSW 1307 Introduction to Database - Access<sup>2</sup>
- MATH 2312 Pre-Calculus
- SPCH 1311 Fundamentals of Speech Communication*
- Summer**
- ECON 1301 Introduction to Economics*
- ITSE 2309 Database Programming – SQL<sup>2</sup>

## SECOND YEAR

### First Semester

COSC 2436 Programming Fundamentals III - Java

ENGL 2311 Technical and Business Writing

ITSE 1330 Introduction to C# Programming

*PHED/DANC Any activity course*

Elective\*

Elective\*

### Second Semester

INEW 2338 Advanced Java Programming

INEW 2340 Object-Oriented Design

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

Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

1 College Algebra level or higher required

2 Tech Prep course which may have been taken in high school

3 May substitute INEW 2330

\* Electives (9 credit hours): BCIS 2390, ITSE 2347, any Visual Basic class higher than ITSE 1332, or any C# class higher than ITSE 1330

## AAS – VISUAL BASIC .NET SPECIALIZATION

64 credit hours

### FIRST YEAR

#### First Semester

COSC 1300 Computers and Technology

*ENGL 1301 Composition/Rhetoric I*

ITSE 1311 Beginning Web Programming

ITSE 1332 Introduction to Visual Basic .NET Programming

ITSW 1307 Introduction to Database - Access<sup>1</sup>

#### Second Semester

ITSE 1347 Programming with Visual Basic .NET

ITSE 1356 Extensible Markup Language (XML)

ITSE 2309 Database Programming - SQL<sup>1</sup>

*MATH 1314 College Algebra<sup>2</sup>*

Elective\*

#### Summer

*ECON 1301 Introduction to Economics*

*SPCH 1311 Fundamentals of Speech Communication*

## SECOND YEAR

### First Semester

*HUMA 1301 Introduction to the Humanities*

ITSE 1330 Introduction to C# Programming

ITSE 2304 Visual Basic .NET Database Development with ADO.NET

ITSE 2347 Advanced Database Programming - Advanced SQL

*PHED/DANC Any activity course*

Elective\*

### Second Semester

INEW 2340 Object-Oriented Design

ITSE 2334 Advanced Visual Basic .NET Programming with ASP.NET

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

Elective\*

*Note: Preferred core choices in italics; other options available on page 77 unless otherwise noted.*

1 Tech Prep course which may have been taken in high school

2 College Algebra level or higher required

3 May substitute INEW 2330

\* Electives (9 credit hours): BCIS 2390, COSC 1337 or higher Java class, COSC 1436 or higher C++ class, INEW 2334, ITSE 2302, or any C# programming class higher than ITSE 1330

## CERTIFICATES

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

### SOFTWARE DEVELOPMENT CERTIFICATE

29 credit hours

#### Summer

COSC 1436 Programming Fundamentals I - C++

#### First Semester

COSC 1437 Programming Fundamentals II - C++

COSC 2325 Computer Organization and Machine Language

Elective \*

#### Second Semester

COSC 2336 Programming Fundamentals III - C++

INEW 2340 Object-Oriented Design

ITSE 2301 Windows Programming Using C++

GAME 2342 Game Development Using C++

#### Summer

ITSE 2380 Cooperative Education - Computer Programming/  
Programmer, General (Capstone)<sup>1</sup>

1 May substitute INEW 2330

2 Tech Prep course which may have been taken in high school

\* Electives (3 credit hours): BCIS 2390, ITSE 2309<sup>2</sup>, any Java class, any Visual Basic class, or any C# class

### C# SPECIALIZATION – SOFTWARE DEVELOPMENT

24 credit hours

#### Summer

ITSE 1311 Beginning Web Programming

ITSE 1330 Introduction to C# Programming

#### First Semester

ITSE 2309 Database Programming – SQL<sup>1</sup>

ITSE 2353 Advanced C# Programming with ASP.NET

Elective\*

**Second Semester**

ITSE 2338 C# Database Development with ADO.NET

Elective\*

**Summer**ITSE 2380 Cooperative Education - Computer Programming/  
Programmer, General (Capstone)<sup>2</sup>

1 Tech Prep course which may have been taken in high school

2 May substitute INEW 2330

\* Electives (6 credit hours): BCIS 2390, COSC 1337 or higher Java class, COSC 1436 or higher C++ class, INEW 2334, INEW 2340, ITSE 1356, ITSE 2302, or ITSE 2347

**JAVA SPECIALIZATION**

32 credit hours

**Summer**

COSC 1436 Programming Fundamentals I - C++

ITSW 1307 Introduction to Database - Access<sup>1</sup>**First Semester**

COSC 1337 Programming Fundamentals II - Java

ITSE 2309 Database Programming - SQL<sup>1</sup>

Elective\*

**Second Semester**

COSC 2436 Programming Fundamentals III - Java

INEW 2340 Object-Oriented Design

Elective\*

**Summer**

INEW 2338 Advanced Java Programming

ITSE 2380 Cooperative Education - Computer Programming/  
Programmer, General (Capstone)<sup>2</sup>

1 Tech Prep course which may have been taken in high school

2 May substitute INEW 2330

\* Electives (6 credit hours): BCIS 2390, COSC 2325, ITSC 1316, ITSE 1347, ITSE 2304, ITSE 2347, or ITSE 2431

**VISUAL BASIC .NET SPECIALIZATION**

30 credit hours

**Summer**

ITSE 1332 Introduction to Visual Basic .NET Programming

**First Semester**

ITSE 1311 Beginning Web Programming

ITSE 1347 Programming with Visual Basic .NET

ITSE 2309 Database Programming - SQL<sup>1</sup>

Elective\*

**Second Semester**

ITSE 2304 Visual Basic .NET Database Development with ADO.NET

ITSE 2334 Advanced Visual Basic .NET Programming with ASP.NET

ITSE 2347 Advanced Database Programming - Advanced SQL

Elective\*

**Summer**ITSE 2380 Cooperative Education - Computer Programming/  
Programmer, General (Capstone)<sup>2</sup>

1 Tech Prep course which may have been completed in high school

2 May substitute INEW 2330

\* Electives (6 credit hours): BCIS 2390, COSC 1337 or higher Java class, COSC 1436 or higher C++ class, INEW 2334, INEW 2340, ITSE 1330 or higher C# class, ITSE 1356, ITSE 2302, or ITSW 1307

**DATABASE PROGRAMMING CERTIFICATE**

21 credit hours

**Summer**

ITSE 1332 Introduction to Visual Basic .NET Programming

ITSW 1307 Introduction to Database - Access<sup>1</sup>**First Semester**

ITSE 2304 Visual Basic .NET Database Development with ADO.NET

ITSE 2309 Database Programming - SQL<sup>1</sup>**Second Semester**

ITSE 2347 Advanced Database Programming - Advanced SQL

ITSE 2334 Advanced Visual Basic .NET Programming with ASP.NET

**Summer**ITSE 2380 Cooperative Education - Computer Programming/  
Programmer, General (Capstone)<sup>2</sup>

1 Tech Prep course which may have been completed in high school

2 May substitute INEW 2330

**C# SPECIALIZATION – DATABASE PROGRAMMING**

21 credit hours

**Summer**

ITSE 1330 Introduction to C# Programming

ITSW 1307 Introduction to Database - Access<sup>1</sup>**First Semester**ITSE 2309 Database Programming - SQL<sup>1</sup>

ITSE 2338 C# Database Development with ADO.NET

**Second Semester**

ITSE 2347 Advanced Database Programming - Advanced SQL

ITSE 2353 Advanced C# Programming with ASP.NET

**Summer**ITSE 2380 Cooperative Education - Computer Programming/  
Programmer, General (Capstone)<sup>2</sup>

1 Tech Prep course which may have been completed in high school

2 May substitute INEW 2330

**MARKETABLE SKILLS ACHIEVEMENT AWARD**

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

**MSAA – C#**

9 credit hours

ITSE 1330 Introduction to C# Programming

ITSE 2338 C# Database Development with ADO.NET

ITSE 2353 Advanced C# Programming with ASP.NET



## MSAA – DATABASE PROGRAMMING

9 credit hours

ITSE 2304 Visual Basic .NET Database Development with ADO.NET

ITSE 2309 Database Programming - SQL<sup>1</sup>

ITSE 2347 Advanced Database Programming - Advanced SQL

1 Tech Prep course which may have been completed in high school

## MSAA – VISUAL BASIC .NET

9 credit hours

ITSE 1332 Introduction to Visual Basic .NET Programming

ITSE 1347 Programming with Visual Basic .NET

Elective\*

\*Elective (3 credit hours): ITSE 2304 or ITSE 2334

## CONVERGENCE TECHNOLOGY

*Also a Tech Prep Program*

*Also a Marketable Skills Achievement Award Program*

### Program Director:

Wayne Jones ..... PRC-H213. .... 972.377.1676

### Academic Advisor:

Al Gober ..... PRC-F134 ..... 972.377.1780

Collin's Convergence Technology program introduces the "triple play" combining voice, video and integrated data over an IP network. The program focuses on key content in all three areas and gives students experience in solving real-world problems through case study courses. The two novel case study courses address contemporary Small Office Home Office

(SOHO) and the Enterprise network business situations, allowing students to utilize the college's state-of-the-art Convergence Lab to build a portfolio of completed projects prior to entering the workforce. The student's ability to design and maintain those networks will give them excellent marketability in this future high-demand, fast-paced industry of Information and Communications Technology (ICT) as described by the Texas Workforce Commission and Career Development Resources.

Convergence is:

- The blending or integration of voice, video, and data into a single but flexible global communications network.
- The merging together of products and capabilities of multiple vendors to create an integrated solution for the customer.

With curriculum designed by industry area experts and taught by experienced professionals, the Convergence Technology program at Collin gives students extensive hands-on training and prepares students for the workforce and for professional certification exams including CCNA, MCSA, A+, Network +, Security +, Linux +, HTI+, and others. Students planning to transfer to a college or university should check with a Collin academic advisor prior to beginning this program.

Tech Prep students who took collegiate-level courses in Convergence Technology while in high school may elect to receive college credit by contacting the Global EDGE office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin

## Career Opportunities

Students successfully completing the Convergence Technology program will be prepared for employment in the following career areas:

- Convergence Specialist in an enterprise, responsible for supporting and integrating voice, data and video for the business
- Home Technology Integrator responsible for integrating high-tech home communication systems
- Information and Communication Technology Specialist
- Wireless Communications Specialist

## AAS – CONVERGENCE TECHNOLOGY

71 credit hours

*Many CPMT, EECT, ITCC, ITMC, ITMT, ITNW (except ITNW 2346 and ITNW 2350), and ITSY courses are offered in eight-week express sessions*

### FIRST YEAR

#### First Semester

CPMT 1411 Introduction to Computer Maintenance<sup>1</sup>

EECT 1407 Convergence Technologies

ITCC 1302 CCNA 1: Networking Basics<sup>1</sup>

ITCC 1306 CCNA 2: Router and Routing Basics<sup>1</sup>

*MATH 1314 College Algebra<sup>2</sup>*

#### Second Semester

*ENGL 1301 Composition/Rhetoric I*

ITCC 1342 CCNA 3: Switching Basic and Intermediate Routing<sup>1</sup>

ITCC 1346 CCNA 4: Wide Area Network (WAN) Technologies<sup>1</sup>

ITMT 1300 Implementing and Supporting Microsoft Windows XP Professional

ITNW 1454 Implementing and Supporting Servers

*PHED/DANC Any activity course*

#### Summer

*ECON 2301 Principles of Macroeconomics*

EECT 1371 Voice-over - Internet Protocol

### SECOND YEAR

#### First Semester

CPMT 2302 Home Technology Integration

EECT 2437 Wireless Telephony Systems

ITNW 2471 Implementing, Managing, and Maintaining a Microsoft Windows 2003 Environment

*SPCH 1321 Business and Professional Speaking*

Elective\*

#### Second Semester

*HUMA 1301 Introduction to the Humanities*

ITNW 2346 Small Office Home Office: Case Study I (Capstone)

ITSC 1316 Linux Installation and Configuration

ITSY 2300 Operating System Security

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

1 Tech Prep course which may have been completed in high school

2 College Algebra level or higher required

\* Elective (2-3 credit hours): CPMT 2371, EECT 1380, EECT 2374, ITNW 1280 (with consent of Program Director), ITNW 1380 (with consent of Program Director), or ITNW 2350

## CERTIFICATES

### CONVERGENCE TECHNOLOGY CERTIFICATE

19 credit hours

Many CPMT, EECT, ITCC, ITMC, ITMT, ITNW (except ITNW 2346 and ITNW 2350), and ITSY courses are offered in eight-week express sessions.

#### First Semester

EECT 1407 Convergence Technologies  
ITCC 1302 CCNA 1: Networking Basics<sup>1</sup>  
ITCC 1306 CCNA 2: Router and Routing Basics<sup>1</sup>

#### Second Semester

EECT 1371 Voice-over - Internet Protocol  
EECT 2437 Wireless Telephony Systems  
Elective\* (Capstone)

- 1 Tech Prep course which may have been completed in high school  
\* Elective (2-3 credit hours): ITNW 1280 (with consent of Program Director), ITNW 1380 (with consent of Program Director), ITNW 2346, or ITNW 2350

### IP SPECIALIZATION

37 credit hours

Many CPMT, EECT, ITCC, ITMC, ITMT, ITNW (except ITNW 2346 and ITNW 2350), and ITSY courses are offered in eight-week express sessions.

#### First Semester

CPMT 1411 Introduction to Computer Maintenance<sup>1</sup>  
EECT 1407 Convergence Technologies  
ITCC 1302 CCNA 1: Networking Basics<sup>1</sup>  
ITCC 1306 CCNA 2: Router and Routing Basics<sup>1</sup>

#### Second Semester

EECT 1371 Voice-over - Internet Protocol  
EECT 2437 Wireless Telephony Systems  
ITMT 1300 Implementing and Supporting Microsoft Windows XP Professional

ITNW 1454 Implementing and Supporting Servers  
ITSC 1316 Linux Installation and Configuration

#### Summer

ITSY 2300 Operating System Security  
Elective\* (Capstone)

- 1 Tech Prep course which may have been completed in high school  
\* Elective (3 credit hours): EECT 2373, ITNW 2346, or ITNW 2350

### ENHANCED SKILLS CERTIFICATE – VOICE-OVER-IP EXPERT

6 credit hours

The Enhanced Skills Certificate provides additional training in specific job skills that supplement those acquired within the AAS degree program.

Prerequisite: Completion of the AAS in Convergence Technology.

Many CPMT, EECT, ITCC, ITMC, ITMT, ITNW (except ITNW 2346 and ITNW 2350), and ITSY courses are offered in eight-week express sessions.

EECT 2373 Case Study III: Advanced VoIP Systems Design  
EECT 2375 Advanced VoIP

### MARKETABLE SKILLS ACHIEVEMENT AWARD

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

### MSAA – HOME TECHNOLOGY INTEGRATION (HTI) EXPERT

9 credit hours

Many CPMT, EECT, ITCC, ITMC, ITMT, ITNW (except ITNW 2346 and ITNW 2350), and ITSY courses are offered in eight-week express sessions.

CPMT 2302 Home Technology Integration  
CPMT 2371 Advanced Home Technology Integration  
Elective\*

- \* Elective (3 credit hours): EECT 1371, EECT 2437, ITNW 2346, or ITNW 2350

### CULINARY ARTS

Also a Tech Prep Program

#### Department Chair:

Karen Musa . . . . . PRC-L229 . . . . . 972.377.1672

#### Academic Advisor:

Tom Bailey . . . . . PRC-F131 . . . . . 972.377.1771  
Debra Lamb . . . . . SCC-G151 . . . . . 972.881.5165

Students completing the Culinary Arts program at Collin College will be qualified for a variety of hands-on food preparation positions and career advancement in the food service industry. The food service industry is the largest private sector employer in the United States. The curriculum at Collin College emphasizes a broad selection of hands-on food preparation courses, building on culinary foundation skills that will allow the student to be effective in a commercial kitchen environment. Collin College's culinary career education offers classes in the daytime and in the evening. The curriculum is designed by industry experts and taught by experienced food service management professionals. The degree program offers an Associate of Applied Science in Culinary Arts, and in addition, two certificates, one in culinary arts and one in pastry arts, are also available.

Students planning to transfer to a college or university should check with a Collin academic advisor prior to beginning this program to verify course transferability. Tech Prep students who took collegiate-level courses in hospitality and food service management while in high school may elect to receive college credit by contacting the Global Edge Office. Petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

## **AAS – CULINARY ARTS**

70 credit hours

### **FIRST YEAR**

#### **First Semester**

CHEF 1301 Basic Food Preparation<sup>1</sup>  
 CHEF 1305 Sanitation and Safety<sup>1, 2, 3</sup>  
*ENGL 1301 Composition/Rhetoric I*  
 HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>  
 IFWA 1310 Nutrition and Menu Planning

#### **Second Semester**

CHEF 2302 Saucier  
 HAMG 1324 Hospitality Human Resources Management  
*HUMA 1301 Introduction to the Humanities*  
 PSTR 1301 Fundamentals of Baking  
 RSTO 1325 Purchasing for Hospitality Operations

#### **Summer**

CHEF 1302 Principles of Healthy Cuisine  
 HAMG 1319 Computers in Hospitality  
*MATH 1332 College Mathematics<sup>4</sup>*

### **SECOND YEAR**

#### **First Semester**

CHEF 1310 Garde Manger  
 CHEF 1341 American Regional Cuisine  
 CHEF 1345 International Cuisine  
 CHEF 2331 Advanced Food Preparation  
*ECON 1301 Introduction to Economics*

#### **Second Semester**

CHEF 1314 A La Carte Cooking  
 CHEF 2380 Cooperative Education - Culinary Arts/Chef Training  
 (Capstone)  
*PHED/DANC Any activity course*  
 RSTO 1304 Dining Room Service  
*SPCH 1321 Business and Professional Speaking*  
*Elective\**

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
  - 2 Certification in ServSafe
  - 3 Certification in Food Protection Management
  - 4 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- \* Elective (3 credit hours): CHEF 2341, RSTO 1301 (must be 21 or older), or any CHEF, HAMG, PSTR, TRVM course not listed above

## **CERTIFICATES**

### **CULINARY ARTS CERTIFICATE**

24 credit hours

#### **First Semester**

CHEF 1301 Basic Food Preparation<sup>1</sup>  
 CHEF 1305 Sanitation and Safety<sup>1, 2, 3</sup>  
 IFWA 1310 Nutrition and Menu Planning  
 PSTR 1301 Fundamentals of Baking

#### **Second Semester**

CHEF 1341 American Regional Cuisine  
 CHEF 1345 International Cuisine  
 CHEF 2331 Advanced Food Preparation (Capstone)  
*Elective\**

- 1 Tech Prep course which may have been completed in high school
  - 2 Certification in ServSafe
  - 3 Certification in Food Protection Management
- \* Elective (3 credit hours) RSTO 1301 (must be 21 or older) or any CHEF, HAMG, PSTR, TRVM course not listed above

### **PASTRY ARTS CERTIFICATE**

15 credit hours

#### **First Semester**

CHEF 1305 Sanitation and Safety<sup>1, 2, 3</sup>  
 PSTR 1301 Fundamentals of Baking  
 PSTR 1340 Plated Desserts

#### **Second Semester**

PSTR 1380 Cooperative Education – Baking and Pastry Arts/Baker/  
 Pastry Chef (Capstone)  
 PSTR 2331 Advanced Pastry Shop

- 1 Tech Prep course which may have been completed in high school
- 2 Certification in ServSafe
- 3 Certification in Food Protection Management

## **DENTAL HYGIENE**

#### **Program Director:**

Vacant . . . . . CPC-A121 . . . . . 972.548.6535

#### **Academic Advisor:**

Erin Darity . . . . . CPC-A108B . . . . . 972.548.6778

The Dental Hygiene Program is designed to prepare individuals to become licensed health care professionals who specialize in non-surgical periodontal therapy and oral health education. A broad-based education in biological sciences, humanities, dental sciences, and clinical technologies prepares the graduate for work, under the supervision of a dentist, in private practice and community settings as a member of the dental health team.

Dental Hygiene is a two-year program that begins during the fall semester each year. Classes are scheduled at the Central Park Campus in McKinney. Enrollment is limited, and admission to the program is competitive. Courses listed in the curriculum must be taken in sequence to assure progression in content from simple to complex. Clinical students are required to submit a

physical, dental and visual acuity report on an annual basis.

Dental hygiene students must meet eligibility requirements for licensure as established by the State Board of Dental Examiners ([www.tsbde.state.tx.us](http://www.tsbde.state.tx.us)) in the State of Texas. If a student has reason to believe he/she is ineligible for licensure, he/she should contact the Board regarding their specific concerns prior to entrance into the program.

A drug scan, background check and CPR certification for health professionals will be required upon acceptance into the program. Requirements for dental hygiene licensure as set by the Texas State Board of Dental Examiners (TSBDE) defines that individuals be "of good moral character." All individuals accepted into the program must meet licensure eligibility requirements. Information received from the background check or drug scan may result in dismissal from the program.

The applicant must be in good health and emotionally stable and must furnish physical, dental and eye examination records. Forms will be provided by the dental hygiene department. In addition, the state of Texas requires the applicant to provide proof of all immunizations required by the state as defined in the Texas Administrative Code. \*Other requirements include Hepatitis B vaccination and annual TB testing. A letter of declination must be signed if the candidate is unable to receive the Hepatitis B series.

Applicants who believe they are at an increased risk of contracting an infectious disease should seek testing and counseling prior to making application to the Dental Hygiene Program. All students accepted into the program are expected to follow universal precautions and are financially responsible for any necessary testing/treatment resulting from an occupational incident and/or communicable disease exposure. No student is allowed to deliver patient care in any setting until he/she has mastered material on safety/universal precautions with satisfactory accuracy.

The student is awarded an AAS degree upon successful completion of the program. The graduate is eligible for national and regional examinations.

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

#### **FUNCTIONAL ABILITIES/CORE PERFORMANCE STANDARDS STATEMENT**

After initial acceptance to this program, all students are required to meet specific functional abilities with or without accommodations for successful completion of the program and to function safely and effectively in the variety of the profession's settings. The specific functional requirements are found in "Functional Abilities/Core Performance Standards" documents provided in the program information and application packets. Students who think they may not be able to meet the functional standards and need accommodation are encouraged to contact the college ACCESS department as soon as this program is of interest.

#### **ACCREDITATION**

Collin's Dental Hygiene Program is accredited by the American Dental Association's Council on Dental Accreditation and has been granted the accreditation status of approval without reporting requirements. The council is a specialized accrediting body recognized by the Department of Education.

#### **SPECIAL ADMISSION REQUIREMENTS**

Admission to this program is selective. Admission to the college does not guarantee admission to the Dental Hygiene Program. Registration is by permission only. Information and applications may be obtained from the program director or the Health Sciences and Emergency Services Office.

- Provide proof of high school graduation or GED
- Earn a GPA of 2.5 or greater on all courses applicable to the Dental Hygiene program
- Submit official copies of all college transcripts
- Complete pre-entrance course requirements with a minimum GPA of 2.5
- Complete the PSB exam with a satisfactory result
- Completion of immunizations required by the Texas Department of Health (TDH)\*
- Submit a handwritten, one- to two-page essay that discusses why dental hygiene has been selected as a profession
- Submit two reference forms: one from an employer and one from an educator

*\* It is important to note that one of the required vaccinations, Hepatitis B, consists of a three dose series, which can take up to 7 months to complete. Individuals unable to receive the HBV must inform the program director. In such cases the applicant must sign a declination form. All immunizations must be complete before the first clinical visit.*

**Health Insurance** – All dental hygiene students are required to show proof of health insurance prior to starting clinical rotations each semester. For information on student insurance plans, contact the Health Science Emergency Services Office at 972.548.6678.

#### **AAS – DENTAL HYGIENIST**

72 credit hours

##### **Pre-Entrance Requirements**

BIOL 2401 Anatomy and Physiology I  
BIOL 2402 Anatomy and Physiology II  
CHEM 1405 Introduction to Chemistry I<sup>1</sup>

#### **FIRST YEAR**

##### **First Semester**

BIOL 2421 Microbiology  
DHYG 1301 Orofacial Anatomy, Histology and Embryology  
DHYG 1304 Dental Radiology  
DHYG 1331 Preclinical Dental Hygiene  
ENGL 1301 Composition/Rhetoric I

##### **Second Semester**

DHYG 1207 General and Dental Nutrition  
DHYG 1227 Preventive Dental Hygiene Care  
DHYG 1235 Pharmacology for the Dental Hygienist  
DHYG 1261 Clinical I - Dental Hygienist  
DHYG 1319 Dental Materials  
PSYC 2301 General Psychology<sup>2</sup>

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



## SECOND YEAR

### First Semester

DHYG 1123 Dental Hygiene Practice  
 DHYG 1215 Community Dentistry  
 DHYG 1311 Periodontology  
 DHYG 1339 General and Oral Pathology  
 DHYG 2201 Contemporary Dental Hygiene Care I  
 DHYG 2361 Clinical II - Dental Hygienist

### Second Semester

DHYG 2231 Contemporary Dental Hygiene Care II  
 DHYG 2275 Community Dental Health Applications  
 DHYG 2363 Clinical III - Dental Hygienist  
 DHYG 2375 Strategies of Oral Medicine (Capstone)  
*HUMA 1301 Introduction to the Humanities*  
 SOCI 1301 Introduction to Sociology

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute CHEM 1411
- 2 Required; no options

*Note: The communication and mathematics competencies are met throughout the degree.*

## E -BUSINESS MEDIA

*Also a Tech Prep Program*

*Also a Marketable Skills Achievement Award Program*

### Department Chair:

Elizabeth Pannell . . . . . PRC-H111. . . . . 972.377.1605

### Academic Advisor:

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

With the global impact of the web, interactive multimedia technology professionals are in demand. The E-Business Media

Program prepares students for this role, teaching them to create dynamic websites for distribution of information, web-based tutorials, business presence, and e-commerce.

This degree program offers specialization in e-business media and web development. Areas of study include multimedia, computer graphics, web authoring, web design, project analysis, Internet commerce, business applications, computer applications, and technical skills. The degree can provide a broad business background and professional skills needed to succeed in a career in e-business.

Three certificates are also offered, which can be applied toward the AAS degree. The certificates provide the knowledge to update current job requirements. After successfully completing a certificate, students can continue to work toward an AAS degree in E-Business Media.

Three Marketable Skills Achievement Awards are also offered, providing quick acknowledgement of success with a minimum of coursework. After successfully completing an award, students can continue to work toward a certificate and then an AAS degree.

Tech Prep students who took collegiate-level courses in ebusiness media while in high school may elect to receive college

credit by contacting the Global EDGE office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

### Career Opportunities

The E-Business Media Program prepares students for many new job opportunities, such as the following:

Web Developer  
 Web Designer  
 Web Programmer  
 Webmaster  
 E-Commerce Manager  
 Interactive Media Specialist  
 Multimedia Designer  
 Multimedia Developer

## AAS – E-BUSINESS MEDIA

64 credit hours

### FIRST YEAR

#### First Semester

BCIS 1305 Business Computer Applications<sup>1</sup>  
*ENGL 1301 Composition/Rhetoric I*  
 GRPH 1359 Vector Graphics for Productions  
*HUMA 1301 Introduction to the Humanities*  
 IMED 1301 Introduction to Multimedia<sup>2</sup>

#### Second Semester

IMED 1341 Interface Design  
 IMED 1345 Interactive Multimedia I – Flash  
 ITSE 1301 Web Design Tools - Graphics  
 ITSE 1311 Beginning Web Programming  
*MATH Any 1XXX or 2XXX college-level mathematics course*  
*PHED/DANC Any activity course*

#### Summer

*ECON 1301 Introduction to Economics<sup>3</sup>*  
*SPCH 1311 Fundamentals of Speech Communication*

### SECOND YEAR

#### First Semester

ITSE 1356 Extensible Markup Language (XML)  
 ITSE 2302 Intermediate Web Programming  
 ITSE 2313 Web Authoring - Dreamweaver  
 ITSW 1307 Introduction to Database - Access  
 Elective\*

#### Second Semester

IMED 2309 Internet Commerce  
 IMED 2345 Interactive Multimedia II – Flash II<sup>4</sup>  
 ITSC 2380 Cooperative Education - Computer and Information Sciences, General<sup>5</sup> (Capstone)  
 Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute COSC 1300
- 2 Tech Prep course which may have been completed in high school

- 3 May substitute ECON 2301 or ECON 2302
- 4 May substitute ITSE 1306, INEW 2334, or ITSE 1359
- 5 May substitute INEW 2330
- \* Electives (6 credit hours): BCIS 2390, or any ARTC, ARTV, GAME, IMED, ITSC, ITSE, or ITSW course not listed above, except ITSC 1380, ITSE 1380, ITSE 2380, ITSW 1380, or ITSW 2380

### **AAS – WEB DEVELOPER SPECIALIZATION**

64 credit hours

#### **FIRST YEAR**

##### **First Semester**

BCIS 1305 Business Computer Applications  
 ENGL 1301 *Composition/Rhetoric I*  
 HUMA 1301 *Introduction to the Humanities*  
 IMED 1301 Introduction to Multimedia<sup>1</sup>  
 ITSE 1311 Beginning Web Programming

##### **Second Semester**

COSC 1315 Fundamentals of Programming<sup>2</sup>  
 IMED 1341 Interface Design  
 IMED 1345 Interactive Multimedia I – Flash<sup>3</sup>  
 ITSE 2302 Intermediate Web Programming  
 ITSW 1307 Introduction to Database - Access

*PHED/DANC Any activity course*

##### **Summer**

*ECON 1301 Introduction to Economics<sup>4</sup>*  
*SPCH 1311 Fundamentals of Speech Communication*

#### **SECOND YEAR**

##### **First Semester**

IMED 2309 Internet Commerce  
 INEW 2334 Advanced Web Programming - ASP.NET  
 ITSE 1356 Extensible Markup Language (XML)  
 ITSE 1359 Introduction to Scripting Language - AJAX  
*MATH Any 1XXX or 2XXX college-level mathematics course*  
 ITSE 2313 Web Authoring - Dreamweaver

##### **Second Semester**

IMED 2345 Interactive Multimedia II – Flash II<sup>5</sup>  
 IMED 2349 Internet Communications - Web Servers  
 ITSC 2380 Cooperative Education - Computer and Information Sciences, General<sup>6</sup> (Capstone)  
 ITSE 1306 Computer Programming Using Hypertext Preprocessor (PHP)

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 May substitute COSC 1436 or ITSE 1332
- 3 May substitute ITSE 1301
- 4 May substitute ECON 2301 or ECON 2302
- 5 May substitute ITSE 2313
- 6 May substitute INEW 2330

### **CERTIFICATES**

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

#### **E-BUSINESS MEDIA CERTIFICATE**

30 credit hours

##### **First Semester**

BCIS 1305 Business Computer Applications  
 IMED 1301 Introduction to Multimedia<sup>1</sup>  
 IMED 1341 Interface Design  
 IMED 1345 Interactive Multimedia I - Flash  
 ITSE 1311 Beginning Web Programming

##### **Second Semester**

GRPH 1359 Vector Graphics for Productions  
 IMED 2309 Internet Commerce  
 ITSE 1301 Web Design Tools - Graphics  
 ITSE 2313 Web Authoring - Dreamweaver (Capstone)  
 ITSW 1307 Introduction to Database - Access

- 1 Tech Prep course which may have been completed in high school

#### **WEB DEVELOPER SPECIALIZATION**

30 credit hours

##### **Summer Semester**

*(Recommend taking program prerequisites before first full Semester.)*

BCIS 1305 Business Computer Applications  
 COSC 1315 Fundamentals of Programming<sup>1</sup>  
 ITSE 1311 Beginning Web Programming

##### **First Semester**

IMED 2309 Internet Commerce  
 INEW 2334 Advanced Web Programming - ASP.NET  
 ITSE 1356 Extensible Markup Language (XML)  
 ITSE 2302 Intermediate Web Programming

##### **Second Semester**

IMED 2349 Internet Communications - Web Servers  
 ITSE 1306 Computer Programming Using Hypertext Preprocessor (PHP)  
 ITSE 1359 Introduction to Scripting Language - AJAX (Capstone)

- 1 May substitute COSC 1436 or ITSE 1431

#### **E-COMMERCE CERTIFICATE**

30 credit hours

##### **First Semester**

BCIS 1305 Business Computer Applications  
 IMED 1301 Introduction to Multimedia<sup>1</sup>  
 IMED 2309 Internet Commerce  
 ITSE 1301 Web Design Tools - Graphics<sup>2</sup>  
 ITSE 1311 Beginning Web Programming

##### **Second Semester**

IMED 1341 Interface Design  
 IMED 2349 Internet Communications - Web Servers  
 ITSE 1356 Extensible Markup Language (XML)  
 ITSE 2313 Web Authoring - Dreamweaver (Capstone)  
 ITSW 1307 Introduction to Database - Access

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

- 1 Tech Prep course which may have been completed in high school
- 2 May substitute GRPH 1359 or IMED 1345

## **MARKETABLE SKILLS ACHIEVEMENT AWARDS**

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

### **MSAA – INTERACTIVE WEB PROGRAMMING**

9 credit hours

- IMED 1301 Introduction to Multimedia<sup>1</sup>  
 ITSE 1311 Beginning Web Programming  
 ITSE 2302 Intermediate Web Programming

- 1 Tech Prep course which may have been completed in high school

### **MSAA – WEB COMMERCE**

9 credit hours

- IMED 2309 Internet Commerce  
 ITSE 1301 Web Design Tools - Graphics<sup>1</sup>  
 ITSE 1311 Beginning Web Programming

- 1 May substitute IMED 1301 or IMED 1345

### **MSAA – STUDIO**

9 credit hours

- IMED 1345 Interactive Multimedia I - Flash  
 ITSE 1301 Web Design Tools - Graphics  
 ITSE 2313 Web Authoring - Dreamweaver

## **ELECTRONIC DESIGN**

*Also a Tech Prep Program*

### **Program Director:**

Wayne Jones . . . . . PRC-H213 . . . . . 972.377.1676

### **Electronic Design Faculty Contact:**

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

### **Academic Advisor:**

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

The Electronic Design AAS and the Electronic Design Automation Certificate programs introduce students to the techniques and skills required to design printed circuit boards for industry.

Printed circuit boards may be found in almost all electronic products such as cell phones, televisions, electronic watches, aircraft, and automobiles. These high-tech assemblies integrate electronic devices and their interconnections into a functional electronic device. Students in the program experience intensive hands-on training and are taught the rules and guidelines necessary to produce designs that may be manufactured economically while being functionally correct.

Tech Prep students who took collegiate-level courses in electronic design while in high school may elect to receive college credit by contacting the Global EDGE office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

### **Career Opportunities:**

Enjoy a profitable career in a high-tech industry. The job market for these skills includes, but is not limited to:

- Aircraft Industry
- Defense
- Space
- Electronic Firms
- Custom Printed Circuit Board Companies
- Research Organizations
- Semiconductor Manufacturing Firms
- Telecommunications Industry

### **AAS – ELECTRONIC DESIGN**

69 credit hours

#### **FIRST YEAR**

##### **First Semester**

- CETT 1325 Digital Fundamentals  
 CETT 1403 DC Circuits<sup>1</sup>  
 DFTG 1309 Basic Computer-Aided Drafting<sup>1</sup>  
 DFTG 1358 Electrical/Electronics Drafting  
*HUMA 1301 Introduction to the Humanities*  
*MATH 1314 College Algebra<sup>2</sup>*

##### **Second Semester**

- CETT 1405 AC Circuits<sup>1</sup>  
 CETT 1421 Electronic Fabrication  
 CETT 1429 Solid State Devices<sup>1</sup>  
 DFTG 2305 Printed Circuit Board Design  
 MATH 1316 Trigonometry  
 Elective\*

#### **SECOND YEAR**

##### **First Semester**

- CETT 1457 Linear Integrated Circuits  
 DFTG 2356 Advanced Printed Circuit Board Design  
*PHED/DANC Any activity course*  
*SPCH 1311 Fundamentals of Speech Communication*  
 Elective\*

##### **Second Semester**

- DFTG 2381 Cooperative Education - Drafting and Design  
 Technology/Technician, General (Capstone)  
*ECON 1301 Introduction to Economics*  
*ENGL 1301 Composition/Rhetoric I*  
 Elective\*  
 Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 College Algebra level or higher required
- \* Electives (12 credit hours): BMGT 2331, BUSI 1301, BUSI 2301, DFTG 1305, DFTG 2319, DFTG 2332, DFTG 2336, DFTG 2371, or ENGL 2311

## CERTIFICATE

### ELECTRONIC DESIGN AUTOMATION CERTIFICATE

38 credit hours

#### FIRST YEAR

##### First Semester

CETT 1325 Digital Fundamentals

CETT 1403 DC Circuits

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

DFTG 1358 Electrical/Electronics Drafting

##### Second Semester

CETT 1405 AC Circuits<sup>1</sup>

CETT 1421 Electronic Fabrication

CETT 1429 Solid State Devices

DFTG 2305 Printed Circuit Board Design

#### SECOND YEAR

##### First Semester

CETT 1457 Linear Integrated Circuits

DFTG 2356 Advanced Printed Circuit Board Design (Capstone)

DFTG 2371 Integrated Circuit Design Verification, Cell Libraries, and Mixed Signal Layout

1 Tech Prep course which may have been completed in high school

## ELECTRONIC ENGINEERING TECHNOLOGY

Also a Tech Prep Program

#### Program Director:

Wayne Jones . . . . . PRC-H213. . . . . 972.377.1676

#### Academic Advisor:

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

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

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

Through articulation agreements, students can transfer their completed program toward a bachelor's degree into several colleges and universities. Students planning to transfer to a college or university should check with the Collin academic advisor prior to beginning this program to verify course transferability. Tech Prep students who took collegiate-level courses in electronic engineering technology while in high school may elect to receive college credit by contacting the Global EDGE office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin

#### Career Opportunities

Students completing the Electronic Engineering Technology degree program will receive quality training for the following fields:

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

## AAS – ELECTRONIC ENGINEERING TECHNOLOGY

67 credit hours

#### FIRST YEAR

##### First Semester

CETT 1403 DC Circuits<sup>1</sup>

CETT 1425 Digital Fundamentals<sup>1</sup>

*ENGL 1301 Composition/Rhetoric I*

ENGR 1201 Introduction to Engineering

*MATH 1314 College Algebra<sup>2</sup>*

##### Second Semester

CETT 1405 AC Circuits<sup>1</sup>

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

MATH 1316 Trigonometry

PHYS 1401 General Physics I

##### Summer

*ECON 1301 Introduction to Economics*

*SPCH 1311 Fundamentals of Speech Communication*

#### SECOND YEAR

##### First Semester

CETT 1431 Programming for Discrete Electronic Devices

CETT 1445 Microprocessor

*HUMA 1301 Introduction to the Humanities*

MATH 2312 Pre-Calculus<sup>3</sup> or Electronic Course\*

PHYS 1402 General Physics II<sup>3</sup> or Electronic Course\*

##### Second Semester

CETT 1457 Linear Integrated Circuits

EECT 1448 Digital Signal Processing (DSP)

ELMT 2435 Certified Electronics Technician Training (Capstone)

*PHED/DANC Any activity course*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 College Algebra level or higher required
- 3 For students planning to transfer to a four-year college or university. Workforce students will substitute an electronic course\*

\* Electronic Course: NANO 1301 and RBTC 1305 may satisfy this requirement as well as any CETT (excluding CETT 1325 and CETT 1409), CPMT, EECT, ELMT, ENGR, ENTC, INMT, INTC, LOTT, or SMFT course not listed above with approval of Program Director.

*Note: Students must pass with a C or better in all CETT, EECT, ELMT, ENGR, MATH, and PHYS courses.*

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



## **AAS – BIOMEDICAL INSTRUMENTATION ELECTRONIC**

### **SPECIALIZATION**

67 credit hours

#### **FIRST YEAR**

##### **First Semester**

CETT 1403 DC Circuits<sup>1</sup>

CETT 1425 Digital Fundamentals<sup>1</sup>

*ENGL 1301 Composition/Rhetoric I*

ENGR 1201 Introduction to Engineering

*MATH 1314 College Algebra<sup>2</sup>*

##### **Second Semester**

CETT 1405 AC Circuits<sup>1</sup>

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

MATH 1316 Trigonometry

PHYS 1401 General Physics I

##### **Summer**

*ECON 1301 Introduction to Economics*

*SPCH 1311 Fundamentals of Speech Communication*

#### **SECOND YEAR**

##### **First Semester**

BIOM 1355 Medical Electronic Applications

CETT 1429 Solid State Devices<sup>1</sup>

ELMT 2437 Electronic Troubleshooting, Service, and Repair

*HUMA 1301 Introduction to the Humanities*

INTC 1307 Electronic Test Equipment

*PHED/DANC Any activity course*

##### **Second Semester**

BIOM 1280 Cooperative Education - Biomedical Technology/  
Technician

CETT 1457 Linear Integrated Circuits

ELMT 2435 Certified Electronics Technician Training (Capstone)

Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

1 Tech Prep course which may have been completed in high school

2 College Algebra level or higher required

\* Elective (3 credit hours): Any CETT (excluding CETT 1325 and CETT 1409), CPMT, EECT, ELMT, ENGR, ENTC, INMT, INTC, LOTT, or SMFT course not listed above with approval of Program Director.

## **AAS – ELECTRO-OPTICAL SPECIALIZATION**

67 credit hours

#### **FIRST YEAR**

##### **First Semester**

CETT 1403 DC Circuits<sup>1</sup>

CETT 1425 Digital Fundamentals<sup>1</sup>

*ENGL 1301 Composition/Rhetoric I*

ENGR 1201 Introduction to Engineering

*MATH 1314 College Algebra<sup>2</sup>*

##### **Second Semester**

CETT 1405 AC Circuits<sup>1</sup>

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

MATH 1316 Trigonometry

PHYS 1401 General Physics I

##### **Summer**

*ECON 1301 Introduction to Economics*

*SPCH 1311 Fundamentals of Speech Communication*

#### **SECOND YEAR**

##### **First Semester**

*HUMA 1301 Introduction to the Humanities*

LOTT 1401 Introduction to Fiber Optics

LOTT 1443 Geometrical Optics I

LOTT 1444 Fundamentals of Laser and Laser Safety

*PHED/DANC Any activity course*

##### **Second Semester**

ELMT 2435 Certified Electronics Technician Training (Capstone)

LOTT 2436 Wave Optics

LOTT 2449 Photonics

Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

1 Tech Prep course which may have been completed in high school

2 College Algebra level or higher required

\* Elective (3 credit hours): Any CETT (excluding CETT 1325 and CETT 1409), CPMT, EECT, ELMT, ENGR, ENTC, INMT, INTC, LOTT, or SMFT course not listed above with approval of Program Director.

## **CERTIFICATES**

### **ELECTRONIC ENGINEERING TECHNOLOGY CERTIFICATE**

33 credit hours

##### **First Semester**

CETT 1403 DC Circuits<sup>1</sup>

CETT 1425 Digital Fundamentals<sup>1</sup>

CETT 1445 Microprocessor

ENGR 1201 Introduction to Engineering

Option 1\*

##### **Second Semester**

CETT 1405 AC Circuits<sup>1</sup>

EECT 1448 Digital Signal Processing (DSP)

ELMT 2435 Certified Electronics Technician Training (Capstone)

Option 2\*\*

1 Tech Prep course which may have been completed in high school

\* Option 1:

- Students pursuing the Electronic Engineering track should complete MATH 1314.
- Students pursuing the Computer Maintenance track should complete CPMT 14111.

\*\* Option 2:

- Students pursuing the Electronic Engineering track should complete CETT 1457.
- Students pursuing the Computer Maintenance track should complete CPMT 1445.

*Note: Students must pass with a C or better in all CETT, EECT, ELMT, ENGR, MATH, and PHYS courses.*

## BIOMEDICAL INSTRUMENTATION ELECTRONIC SPECIALIZATION

30 credit hours

### FIRST YEAR

#### First Semester

BIOM 1355 Medical Electronic Applications

CETT 1403 DC Circuits<sup>1</sup>

CETT 1425 Digital Fundamentals<sup>1</sup>

ENGR 1201 Introduction to Engineering

INTC 1307 Electronic Test Equipment

#### Second Semester

BIOM 1280 Cooperative Education - Biomedical Technology/  
Technician

CETT 1405 AC Circuits<sup>1</sup>

ELMT 2435 Certified Electronics Technician Training (Capstone)

ELMT 2437 Electronic Troubleshooting, Service, and Repair

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

## ELECTRO-OPTICAL SPECIALIZATION

34 credit hours

### First Semester

CETT 1403 DC Circuits<sup>1</sup>

CETT 1425 Digital Fundamentals<sup>1</sup>

ENGR 1201 Introduction to Engineering

LOTT 1401 Introduction to Fiber Optics

LOTT 1443 Geometrical Optics I

### Second Semester

CETT 1405 AC Circuits<sup>1</sup>

ELMT 2435 Certified Electronics Technician Training (Capstone)

LOTT 1444 Fundamentals of Laser and Laser Safety

LOTT 2436 Wave Optics

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

## EMERGENCY MEDICAL SERVICES PROFESSIONS

*Also a Marketable Skills Achievement Award Program*

### Program Director:

Pat McAuliff. . . . . CPC-A206. . . . . 972.548.6836

### Academic Advisor:

Tori Hoffman . . . . . CPC-A108C. . . . . 972.548.6779

Collin's Emergency Medical Services Professions program establishes an excellent foundation for careers in emergency medicine and other related healthcare fields. Three tracks are available including:

### Emergency Medical Technician - Basic 6 credit hours

(Included in the prerequisites for degree and certificate)

### AAS Emergency Medical Services Professions 69 credit hours

### EMS Paramedic Certificate 42 credit hours

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

## FUNCTIONAL ABILITIES/CORE PERFORMANCE

### STANDARDS STATEMENT

Regulations governing this program require all applicants to meet specific functional abilities – some are without accommodations – for admission and/or successful completion of the program. The specific functional requirements are found in Functional Abilities/Core Performance Standards documents provided in the program information and application packets.

Students who think they may not be able to meet the functional standards and need accommodations are encouraged to contact the ACCESS department or program director as soon as this program is of interest.

### ADMISSION REQUIREMENTS

Registration is by permission only. Additional information and applications may be obtained from the program director or the Health Sciences and Emergency Services Office.

- High school diploma or GED
- 18 years of age
- Completion of program application
- Complete Collin reading and mathematics assessment tests
- Certified as American Heart Association CPR for Health Care Provider or Red Cross CPR for the Professional Rescuer
- Personal interview
- Drug screen
- Criminal history check
- Completion of immunizations required by the Texas Department of Health (TDH)\*
- Applicant must be in academic good standing with a 2.0 or higher GPA

\* *It is important to note that one of the required vaccinations, Hepatitis B, consists of a three dose series, which can take up to 7 months to complete. Individuals unable to receive the HBV must inform the program director. In such cases the applicant must sign a declination form. All immunizations must be complete before the first clinical visit.*

**Health Insurance** – All Emergency Medical Services students are required to show proof of health insurance prior to starting clinical rotations each semester. For information on student insurance plans, contact the Health Science Emergency Services Office at 972.548.6678.

### AAS – Emergency Medical Services Professions or EMS Paramedic Certificate (Paramedic Students) Additional

#### Admission Requirements:

- Texas Department of Health or National Registry EMT - Basic Certification
- PSB examination for Allied Health Professionals (offered at specific times throughout the year)
- Completion of local college assessments in reading, writing and mathematics (must place at or above college-level in all assessments)

**Career Opportunities**

Cardiac Lab Technician  
 Emergency Department Assistant  
 Patient Care Technician  
 Intensive Care Technician  
 Firefighter/Paramedic  
 Paramedic (non-911)  
 Emergency Medical Technician (non-911)

**AAS – Emergency Medical Services Professions**

69 credit hours

**Prerequisites**

EMSP 1160 Clinical - Emergency Medical Technician - Basic <sup>1</sup>  
 EMSP 1501 Emergency Medical Technician - Basic <sup>1</sup>  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1314 College Algebra* <sup>2</sup>  
 MDCA 1409 Anatomy and Physiology for Medical Assistants

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

BIOL 2401 Anatomy and Physiology I  
 EMSP 1338 Introduction to Advanced Practice  
 EMSP 1356 Patient Assessment and Airway Management  
*PHED 1100 Beginning Weight Training* <sup>3</sup>  
*SPCH 1315 Public Speaking I* <sup>4</sup>

**Second Semester**

BIOL 2402 Anatomy and Physiology II  
 EMSP 1161 Clinical - Emergency Medical Technician - Advanced I  
 EMSP 2434 Medical Emergencies  
 EMSP 2444 Cardiology

**Summer**

COSC 1300 Computers and Technology  
 EMSP 1162 Clinical - Emergency Medical Technician - Advanced II  
 EMSP 1355 Trauma Management

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

EMSP 2260 Clinical - Emergency Medical EMT Paramedic -  
 Advanced III  
 EMSP 2330 Special Populations  
 EMSP 2338 EMS Operations  
*PHIL 2306 Introduction to Ethics*  
*PSYC 2301 General Psychology*

**Second Semester**

EMSP 2143 Assessment Based Management (Capstone)  
 EMSP 2463 Clinical - Emergency Medical EMT Paramedic -  
 Advanced IV

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 A student who has the EMT - Basic certification has met this requirement
- 2 May substitute a higher-level mathematics course
- 3 Required; no options
- 4 May substitute SPCH 1321

**CERTIFICATE****EMS PARAMEDIC CERTIFICATE**

42 credit hours

**Prerequisites**

EMSP 1160 Clinical - Emergency Medical Technician - Basic<sup>1</sup>  
 EMSP 1501 Emergency Medical Technician - Basic<sup>1</sup>  
 MDCA 1409 Anatomy and Physiology for Medical Assistants

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

EMSP 1338 Introduction to Advanced Practice  
 EMSP 1356 Patient Assessment and Airway Management

**Second Semester**

EMSP 1161 Clinical - Emergency Medical Technician - Advanced I  
 EMSP 2434 Medical Emergencies  
 EMSP 2444 Cardiology

**Summer**

EMSP 1162 Clinical - Emergency Medical Technician - Advanced II  
 EMSP 1355 Trauma Management

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

EMSP 2260 Clinical - Emergency Medical EMT Paramedic -  
 Advanced III  
 EMSP 2330 Special Populations  
 EMSP 2338 EMS Operations

**Second Semester**

EMSP 2143 Assessment Based Management (Capstone)  
 EMSP 2463 Clinical - Emergency Medical EMT Paramedic -  
 Advanced IV

- 1 A student who has the EMT - Basic certification has met this requirement

**MARKETABLE SKILLS ACHIEVEMENT AWARDS**

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

**MSAA – EMERGENCY MEDICAL SERVICES PROFESSIONS**

10 credit hours

EMSP 1160 Clinical - Emergency Medical Technician - Basic  
 EMSP 1501 Emergency Medical Technician - Basic  
 MDCA 1409 Anatomy and Physiology for Medical Assistants

## FIRE SCIENCE

*Also a Marketable Skills Achievement Award Program*

### Program Director:

Pat McAuliff. . . . . CPC-A206. . . . . 972.548.6837

### Academic Advisor:

Tori Hoffman . . . . . CPC-A108C. . . . . 972.548.6779

The firefighter with a well-balanced educational background will be better prepared to serve and protect the community. Collin's Associate of Applied Science degree in Fire Science is designed to give a broad perspective on various facets of providing fire protection. The program is applicable for students wishing to enter the fire service and for persons already employed as firefighters or in related career fields. Students acquire the technical knowledge needed to combat the fire problems created by modern living.

Full-time, full-paid firefighters employed by any political subdivision who are enrolled in fire science courses within Collin's Fire Science program are exempt from paying tuition and laboratory fees for credit courses.

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

Students completing the Basic Firefighter Certificate program (Fire Academy) are eligible to take the State Certification Exam for Basic Firefighter.

Students interested in enrolling in the Fire Academy should contact the Fire Science Office at 972.548.6836.

Additional information may be obtained from the Director of Fire Science or the Health Sciences and Emergency Services Office or at the Fire Science website: [www.ccccd.edu/firescience](http://www.ccccd.edu/firescience).

### FUNCTIONAL ABILITIES/CORE PERFORMANCE STANDARDS

#### STATEMENT

Regulations governing this program require all applicants to meet specific functional abilities – some are without accommodations – for admission and/or successful completion of the program. The specific functional requirements are found in the Functional Abilities/Core Performance Standards documents provided in the program information and application packets. Students who think they may not be able to meet the functional standards and need accommodation are encouraged to contact the ACCESS department or program director as soon as this program is of interest.

### ADDITIONAL ADMISSIONS REQUIREMENTS FOR FIREFIGHTER CERTIFICATION COURSES

- Have proof of high school graduation or GED
- Complete program application
- Complete Collin reading and mathematics assessments
- Complete the physical ability exam and personal interview scheduled through the Program Director
- Candidates to the Fire Academy must be in good academic standing
- Criminal history check

- Applicant must be in academic good standing with a 2.0 or higher GPA

Registration is by permission only. Additional information may be obtained from the Director of Fire Science or the Health Sciences and Emergency Services Office or at the Fire Science website: [www.ccccd.edu/firescience](http://www.ccccd.edu/firescience).

### Career Opportunities

Today's fire protection responsibilities provide new and exciting challenges in both the public and private sectors. Students enrolled in the Fire Science program prepare for occupations involving fire suppression, investigation, prevention and education. These challenging job opportunities include:

- Fire Department Officer
- Fire Equipment Sales and Service Representative
- Firefighter
- Hazardous Material Team Member
- Industrial Fire Protection Technician
- Municipal Emergency Administrator
- Safety Technician

### AAS – BASIC FIREFIGHTER CERTIFICATION

67 credit hours

#### FIRST YEAR

##### First Semester

ENGL 1301 Composition/Rhetoric I

FIRT 1301 Fundamentals of Fire Protection

MATH 1332 College Mathematics<sup>1</sup>

PHED 1100 Beginning Weight Training<sup>2</sup>

##### Second Semester

CHEM 1405 Introduction to Chemistry I<sup>3</sup>

FIRT 1315 Hazardous Materials I

GOVT 2301 American Government I

HUMA 1301 Introduction to the Humanities

SPCH 1311 Fundamentals of Speech Communication

#### SECOND YEAR

##### First Semester

ENGL 2311 Technical and Business Writing

FIRT 1327 Building Construction in the Fire Service

FIRT 1338 Fire Protection Systems

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

##### Second Semester

FIRS 1301 Firefighter Certification I

FIRS 1407 Firefighter Certification II

FIRS 1313 Firefighter Certification III

FIRS 1319 Firefighter Certification IV

FIRS 1323 Firefighter Certification V

FIRS 1329 Firefighter Certification VI

##### Third Semester

EMSP 1160 Clinical - Emergency Medical Technician - Basic

EMSP 1501 Emergency Medical Technician - Basic

FIRS 1433 Firefighter Certification VII (Capstone)



*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- 2 May substitute PHED 1338
- 3 May substitute BIOL 1408
- 4 May substitute ANTH 2351, ECON 1301, ECON 2301, ECON 2302, GOVT 2302, HIST 1301, HIST 1302, HIST 2301, PSYC 2302, or SOCI 1301

### **AAS – FIRE OFFICER CERTIFICATION SPECIALIZATION**

62 credit hours

#### **FIRST YEAR**

##### **First Semester**

ECON 1301 Introduction to Economics <sup>1</sup>  
*ENGL 1301 Composition/Rhetoric I*  
 FIRT 1301 Fundamentals of Fire Protection  
*MATH 1332 College Mathematics* <sup>2</sup>  
*PHED 1100 Beginning Weight Training* <sup>3</sup>  
*PSYC 2301 General Psychology* <sup>4</sup>

##### **Second Semester**

CHEM 1405 Introduction to Chemistry I <sup>5</sup>  
 FIRT 1315 Hazardous Materials I  
 GOVT 2301 American Government I  
*HUMA 1301 Introduction to the Humanities*  
*SPCH 1311 Fundamentals of Speech Communication*

#### **SECOND YEAR**

##### **First Semester**

ENGL 2311 Technical and Business Writing  
 FIRT 1327 Building Construction in the Fire Service  
 FIRT 1342 Fire Officer I  
 FIRT 2305 Fire Instructor I  
 FIRT 2309 Firefighting Strategies and Tactics I

##### **Second Semester**

FIRT 1338 Fire Protection Systems  
 FIRT 1343 Fire Officer II  
 FIRT 1349 Fire Administration II  
 FIRT 2307 Fire Instructor II  
 FIRT 2351 Company Fire Officer (Capstone)

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute ECON 2301 or ECON 2302
- 2 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- 3 May substitute PHED 1338
- 4 May substitute ANTH 2351, GOVT 2302, HIST 1301, HIST 1302, HIST 2301, PSYC 2302, or SOCI 1301
- 5 May substitute BIOL 1408

## **CERTIFICATES**

### **BASIC FIREFIGHTER CERTIFICATE**

29 credit hours

#### **First Semester**

EMSP 1160 Clinical - Emergency Medical Technician - Basic  
 EMSP 1501 Emergency Medical Technician - Basic  
 FIRS 1301 Firefighter Certification I  
 FIRS 1407 Firefighter Certification II  
 FIRS 1313 Firefighter Certification III

#### **Second Semester**

FIRS 1319 Firefighter Certification IV  
 FIRS 1323 Firefighter Certification V  
 FIRS 1329 Firefighter Certification VI  
 FIRS 1433 Firefighter Certification VII (Capstone)

### **FIRE OFFICER CERTIFICATE**

18 credit hours

#### **First Semester**

FIRT 1342 Fire Officer I  
 FIRT 2305 Fire Instructor I  
 FIRT 2309 Firefighting Strategies and Tactics I

#### **Second Semester**

FIRT 1343 Fire Officer II  
 FIRT 2307 Fire Instructor II  
 FIRT 2351 Company Fire Officer (Capstone)

## **MARKETABLE SKILLS ACHIEVEMENT AWARDS**

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

### **MSAA – FIRE OFFICER CANDIDATE**

9 credit hours

FIRT 1342 Fire Officer I  
 FIRT 2305 Fire Instructor I  
 FIRT 2309 Firefighting Strategies and Tactics I

## **HEALTH INFORMATION TECHNOLOGY**

#### **Program Director:**

Vacant . . . . . CPC

#### **Academic Advisor:**

Erin Darity . . . . . CPC-A108B . . . . . 972.548.6778

The AAS in Health Information Technology at Collin County Community College is an 18 month program (two academic years) that will prepare the student for workforce entry-level as a certification eligible coding associate and registered health information technician. The course of study consists of approved courses from the Workforce Education Course Manual of Texas. These courses are based on the AHIMA's (American Health Information Management Association's) competencies for the CCA (Certified Coding Associate) and the RHIT (Registered Health Information Technician). The Health Information Technology curriculum is approved by the Texas Higher

education Coordinating Board and modeled after the AHIMA national associate degree curriculum.

Upon the successful completion of the program, the graduate can make application to AHIMA to take the credentialing examinations. After passing the certification examination, the graduate can use the designation CCA and RHIT behind the professional signature. Students must meet eligibility requirements for certification.

Students must have instructor permission to enroll in cooperative education and must meet all requirements of external clinical facilities participating in the program. These requirements include drug screens, background checks, selected immunizations and proof of personal health insurance. Students who think they may need functional accommodation are encouraged to contact the college ACCESS department as soon as this program is of interest.

Students interested in the program should see an academic advisor for consultation and consult the college web site for more specific information. The Program Director should be contacted to construct a degree plan as soon as the program is of interest.

### **AAS – HEALTH INFORMATION TECHNOLOGY**

65 credit hours

#### **FIRST YEAR**

##### **Pre-Requisite**

BCIS 1305 Business Computer Applications  
 HPRS 1271 Introduction to the Healthcare System  
 POFT 1127 Introduction to Keyboarding<sup>1</sup>  
 SRGT 1301 Medical Terminology I

##### **First Semester**

BIOL 2404 Human Anatomy and Physiology Basic  
 ENGL 1301 Composition/Rhetoric I  
 HITT 1301 Health Data Content and Structure  
 PHED/DANC Any Activity Course  
 POFM 1300 Medical Coding Basics

##### **Second Semester**

HITT 1342 Ambulatory Coding  
 HPRS 2300 Pharmacology for Health Professions  
 HPRS 2301 Pathophysiology  
 MDCA 1343 Medical Insurance/Billing  
 PSYC 2301 General Psychology<sup>2</sup>

#### **SECOND YEAR**

##### **First Semester**

HITT 2339 Health Information Organization and Supervision  
 HITT 2346 Advanced Medical Coding  
 HPRS 2321 Medical Law and Ethics for Health Professionals  
 MATH 1342 Statistics<sup>3</sup>  
 SPCH 1321 Business and Professional Speaking<sup>4</sup>

##### **Second Semester**

BMGT 1307 High Performance Work Teams  
 HITT 2343 Quality Assessment Performance Improvement  
 HITT 2361 Clinical – Health Information/Medical Records Technology (Capstone)  
 PHIL 2303 Introduction to Logic<sup>5</sup>

- 1 May substitute proficiency testing
- 2 Required; no options
- 3 Required; no options
- 4 Required; no options
- 5 Required; no options

*After completing the AAS, the student may take:*

HITT 2249 RHIT Competency Review

### **CERTIFICATES**

#### **MEDICAL CODING AND BILLING CERTIFICATE**

38 credit hours

##### **FIRST YEAR**

###### **First Semester**

HITT 1301 Health Data Content and Structure  
 HITT 1311 Computers in Health Care  
 HPRS 2300 Pharmacology for Health Professions  
 POFM 1300 Medical Coding Basics  
 SRGT 1301 Medical Terminology I

###### **Second Semester**

BIOL 2404 Human Anatomy and Physiology Basic  
 HITT 1342 Ambulatory Coding  
 HPRS 2301 Pathophysiology  
 MDCA 1343 Medical Insurance/Billing

###### **Third Semester**

HITT 1266 Practicum – Health Information/Medical Records Technology/Technician (Capstone)  
 HITT 2245 Coding Certification Exam Review  
 HITT 2346 Advanced Medical Coding  
 HPRS 2321 Medical Law and Ethics for Health Professionals

#### **MEDICAL TRANSCRIPTION CERTIFICATE**

38 credit hours

##### **FIRST YEAR**

###### **First Semester**

HPRS 2300 Pharmacology for Health Professions  
 MRMT 1307 Medical Transcription I  
 POFT 1307 Proofreading and Editing  
 POFT 2301 Intermediate Keyboarding  
 SRGT 1301 Medical Terminology I

###### **Second Semester**

BIOL 2404 Human Anatomy and Physiology Basics  
 HPRS 2301 Pathophysiology  
 MRMT 2333 Medical Transcription II  
 POFT 1301 Computer Applications I – MS Word Productivity  
 POFT 2203 Speed and Accuracy Building

###### **Third Semester**

HPRS 2321 Medical Law and Ethics for Health Professionals  
 MRMT 1267 Practicum – Medical Transcription/Transcriptionist (Capstone)  
 MRMT 2371 Medical Transcription III

## HOSPITALITY AND FOOD SERVICE MANAGEMENT

*Also a Tech Prep Program*

### Department Chair:

Karen Musa . . . . . PRC-L229 . . . . . 972.377.1672

### Academic Advisor:

Tom Bailey . . . . . PRC-F131 . . . . . 972.377.1771

Debra Lamb . . . . . SCC-G151 . . . . . 972.881.5165

Students completing the Hospitality and Food Service Management program at Collin will be qualified for a variety of mid-management positions and career advancement in the hospitality industry. Students in this program may choose from two degree options: Hotel/Restaurant Management degree or a Culinary Arts specialization.

The Hospitality and Food Service Management curriculum emphasizes problem-solving, creativity and industry involvement, in addition to practical on-the-job experience. Upon completion of this degree, the student will have achieved almost 1,000 hours of work experience directly related to this chosen field.

Day and night classes are open-entry courses that provide a flexible schedule and meet a variety of individual needs. The TRVM classes may be taken for continuing education credit.

Students planning to transfer to a college or university should check with a Collin academic advisor prior to beginning this program to verify course transferability. Tech Prep students who took collegiate-level courses in hospitality and food service management while in high school may elect to receive college credit by contacting the Global EDGE office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

### ACCREDITATION AND TRANSFER

Collin's Dietary Manager Program curriculum has been approved by the Dietary Manager's Association (DMA). Articulation agreements are being developed with nationally recognized hospitality programs such as the University of North Texas, Johnson & Wales University, Texas Tech University, and the University of Houston.

### Certifications

Students completing the Dietary Manager specialization will be eligible to take the Dietary Manager Certification exam offered by the Dietary Manager's Association. Students will be classified as a Certified Dietary Manager (CDM) and Certified Food Protection Professional (CFPP) upon successful completion of the certification examination. The Dietary Manager Program curriculum meets the minimum requirements set by the Texas Department of Health for food service directors employed in long-term care facilities.

### ADDITIONAL ADMISSIONS REQUIREMENTS

- Complete program application procedure
- Complete Collin's reading, writing, and mathematics assessments

Additional information and applications for the program may be obtained from the department chair or the Business and Computer Science Office.

### Career Opportunities

The Hotel/Restaurant Management degree prepares students for many different job opportunities in a variety of firms including hotels, bed and breakfasts, retirement facilities, restaurants, country clubs, and hospitals. Management and supervisory positions may be found in the following occupational areas:

Accounting and Finance  
Facilities Management  
Food and Beverage Management  
Human Resources  
Rooms Division  
Sales and Marketing  
Security

### AAS – HOTEL/RESTAURANT MANAGEMENT

63 credit hours

#### FIRST YEAR

##### First Semester

*ENGL 1301 Composition/Rhetoric I*

HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>

HAMG 1340 Hospitality Legal Issues

HAMG 2332 Hospitality Financial Management

*SPCH 1321 Business and Professional Speaking*

##### Second Semester

HAMG 1313 Front Office Procedures

HAMG 1324 Hospitality Human Resources Management

HAMG 1380 Cooperative Education - Hospitality Administration/  
Management, General

HAMG 2307 Hospitality Marketing and Sales

HAMG 2337 Hospitality Facilities Management

##### Summer

CHEF 1301 Basic Food Preparation<sup>1</sup>

COSC 1300 Computers and Technology

HAMG 2301 Principles of Food and Beverage Operations

#### SECOND YEAR

##### First Semester

CHEF 1305 Sanitation and Safety<sup>1, 2, 3</sup>

HAMG 2305 Hospitality Management and Leadership

*MATH 1332 College Mathematics<sup>4</sup>*

*PHED/DANC Any activity course*

*ECON 1301 Introduction to Economics*

TRVM 2301 Introduction to Convention/Meeting Management

##### Second Semester

HAMG 2581 Cooperative Education - Hospitality Administration/  
Management, General (Capstone)

*HUMA 1301 Introduction to the Humanities*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 Certification in ServSafe
- 3 Certification in Food Protection Management
- 4 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)

## **CERTIFICATES**

### **HOTEL/RESTAURANT MANAGEMENT CERTIFICATE**

27 credit hours

#### **First Semester**

HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>  
 HAMG 1340 Hospitality Legal Issues  
 HAMG 2307 Hospitality Marketing and Sales  
 HAMG 2332 Hospitality Financial Management

#### **Second Semester**

CHEF 1305 Sanitation and Safety<sup>1, 2, 3</sup>  
 HAMG 2301 Principles of Food and Beverage Operations  
 HAMG 2305 Hospitality Management and Leadership  
 HAMG 2337 Hospitality Facilities Management  
 RSTO 1380 Cooperative Education - Food and Beverage/Restaurant Operations Manager (Capstone)

- 1 Tech Prep course which may have been completed in high school
- 2 Certification in ServSafe
- 3 Certification in Food Protection Management

### **CATERING MANAGEMENT SPECIALIZATION**

24 credit hours

#### **First Semester**

BUSG 2309 Small Business Management  
 CHEF 1305 Sanitation and Safety<sup>1, 2, 3</sup>  
 HAMG 2307 Hospitality Marketing and Sales  
 HAMG 2332 Hospitality Financial Management

#### **Second Semester**

HAMG 2301 Principles of Food and Beverage Operations  
 HAMG 2337 Hospitality Facilities Management  
 RSTO 1380 Cooperative Education - Restaurant, Culinary, and Catering Management/Manager (Capstone)

Elective\*

- 1 Tech Prep course which may have been completed in high school
- 2 Certification in ServSafe
- 3 Certification in Food Protection Management
- \* Elective (3 credit hours): Any BUSG, CHEF, HAMG, or TRVM course (excluding CHEF 1380, CHEF 2581, HAMG 1380, HAMG 2581, and TRVM 1380)

### **DIETARY MANAGER SPECIALIZATION**

15 credit hours

#### **First Semester**

BIOL 1323 Nutrition and Diet Therapy  
 HAMG 1324 Hospitality Human Resources Management  
 HAMG 2301 Principles of Food and Beverage Operations

#### **Second Semester**

CHEF 1305 Sanitation and Safety<sup>1, 2, 3</sup>  
 HAMG 1380 Cooperative Education - Hospitality Administration/Management, General<sup>4</sup> (Capstone)

- 1 Tech Prep course which may have been completed in high school
- 2 Certification in ServSafe
- 3 Certification in Food Protection Management
- 4 May substitute CHEF 1380

### **HOTEL MANAGEMENT SPECIALIZATION**

24 credit hours

#### **First Semester**

HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>  
 HAMG 1340 Hospitality Legal Issues  
 HAMG 2307 Hospitality Marketing and Sales  
 HAMG 2332 Hospitality Financial Management

#### **Second Semester**

HAMG 1313 Front Office Procedures  
 HAMG 1324 Hospitality Human Resources Management  
 HAMG 1380 Cooperative Education - Hospitality Administration/Management (Capstone)  
 HAMG 2337 Hospitality Facilities Management

- 1 Tech Prep course which may have been completed in high school

### **MEETINGS AND EVENT MANAGEMENT SPECIALIZATION**

24 credit hours

#### **First Semester**

HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>  
 HAMG 2307 Hospitality Marketing and Sales  
 TRVM 1327 Special Events Design  
 TRVM 2301 Introduction to Convention/Meeting Management

#### **Second Semester**

HAMG 2301 Principles of Food and Beverage Operations  
 TRVM 1380 Cooperative Education - Tourism and Travel Services Management (Capstone)  
 TRVM 2333 Applied Convention/Meetings Management  
 TRVM 2355 Exposition and Trade Show Operations

- 1 Tech Prep course which may have been completed in high school

## **INFORMATION SYSTEMS CYBERSECURITY**

*Also a Tech Prep Program*

#### **Program Director:**

Wayne Jones . . . . . PRC-H213 . . . . . 972.377.1676

#### **Academic Advisor:**

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

The Information Systems Cybersecurity AAS degree prepares students for a career in cybersecurity management and support in addition to the tasks relating to network management, system administration, technical support, hardware/software installation, and equipment repair. The program graduate will be able to design and install secure network systems based on customer requirements, monitor and maintain network traffic and security, and maintain network hardware and software.

Courses and hands-on labs in this program will assist the graduate in preparing to take a variety of Cisco, Microsoft, and CompTIA certification examinations.

Students planning to transfer to a college or university should

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



check with the Collin academic advisor prior to beginning this program. Tech Prep students who took collegiate-level courses in information systems cybersecurity while in high school may elect to receive college credit by contacting the Global EDGE office.

A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

### Career Opportunities

Information Systems Cybersecurity is a fast-growing and high-demand field and includes career opportunities in the following areas:

- Network Administrator
- Network Auditor
- Network Consultant
- Systems Administrator
- Security Analyst
- Security Consultant

### AAS – INFORMATION SYSTEMS CYBERSECURITY

72 credit hours

*All ITCC, ITMC, ITMT, ITNW and ITSY courses are offered in eight-week express sessions.*

#### FIRST YEAR

##### First Semester

CPMT 1411 Introduction to Computer Maintenance<sup>1</sup>

ENGL 1301 Composition/Rhetoric I

ITMT 1300 Implementing and Supporting Microsoft Windows XP Professional

ITNW 1358 Network+

ITNW 1454 Implementing and Supporting Servers

##### Second Semester

ECON 2301 Principles of Macroeconomics

ITCC 1302 CCNA 1: Networking Basics<sup>1</sup>

ITMT 2446 Implementing and Administering Security in a Microsoft Windows Server 2003 Network

ITNW 2471 Implementing, Managing, and Maintaining a Microsoft Windows 2003 Environment

ITSC 1316 Linux Installation and Configuration

PHED/DANC Any activity course

##### Summer

ITCC 1306 CCNA 2: Router and Routing Basics<sup>1</sup>

MATH 1314 College Algebra<sup>2</sup>

#### SECOND YEAR

##### First Semester

ITCC 1342 CCNA 3: Switching Basic and Intermediate Routing<sup>1</sup>

ITCC 1346 CCNA 4: Wide Area Network (WAN) Technologies<sup>1</sup>

ITSY 2300 Operating System Security

ITSY 2301 Firewalls and Network Security

SPCH 1311 Fundamentals of Speech Communication

##### Second Semester

HUMA 1301 Introduction to the Humanities

ITSY 2342 Incident Response and Handling

ITSY 2343 Computer System Forensics

ITSY 2371 e-Commerce and Biometric Authentication (Capstone)

ITSY 2441 Security Management Practices

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

1 Tech Prep course which may have been completed in high school

2 College Algebra level or higher required

### CERTIFICATES

#### INFORMATION SYSTEMS CYBERSECURITY CERTIFICATE

40 credit hours

*All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions.*

##### First Semester

ITCC 1302 CCNA 1: Networking Basics<sup>1</sup>

ITCC 1306 CCNA 2: Router and Routing Basics<sup>1</sup>

ITNW 1358 Network+

ITNW 1454 Implementing and Supporting Servers

##### Second Semester

ITMT 2446 Implementing and Administering Security in a Microsoft Windows Server 2003 Network

ITNW 2471 Implementing, Managing, and Maintaining a Microsoft Windows 2003 Environment

ITSY 2300 Operating System Security

ITSY 2301 Firewalls and Network Security

ITSY 2342 Incident Response and Handling

##### Summer

ITSY 2343 Computer System Forensics

ITSY 2371 e-Commerce and Biometric Authentication (Capstone)

ITSY 2441 Security Management Practices

1 Tech Prep course which may have been completed in high school

### INTERIOR AND ARCHITECTURAL DESIGN

*Also a Tech Prep Program*

*Also a Marketable Skills Achievement Award Program*

#### Program Director:

Wayne Jones . . . . . PRC-H213 . . . . . 972.377.1676

#### Interior and Architectural Design Faculty Contact:

Ali Kholdi . . . . . PRC-H217 . . . . . 972.377.1716

#### Academic Advisor:

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

The Interior and Architectural Design Program prepares students to enter the world of spatial design. Specialized knowledge needed by an architect or interior designer includes spatial composition, drafting, space planning, building codes, and materials. Electives allow for more in-depth study of architecture, interior design, or illustration. Students are immediately valuable to employers upon graduation with our strong curriculum in CAD drafting. The program's strengths in advanced levels of drafting and modeling means students can position themselves within interior and architectural design firms to further their training and development in their respective fields.

Interior and architectural design are state-licensed professions and all state requirements must be met before either title can be used. Accredited degrees in interior design and architecture are available through four local institutions (UNT, UTA, El Centro

College, and TCU). Students planning to transfer to a college or university should check with the Collin academic advisor prior to beginning this program to verify course transferability. Tech Prep students who took collegiate level courses in interior and architectural design while in high school may elect to receive college credit by contacting the Global EDGE office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

All new students: Please contact one of the Interior and Architectural Design faculty or the college academic advisor prior to registering for any INDS courses. Please call 972.377.1716 to make an appointment with a faculty member.

### Career Opportunities

With an Associate of Applied Science degree in Interior and Architectural Design, the student will have the skills necessary to enter the profession as an assistant in an interior design firm, an architectural firm, a space planning or facilities management department of any large corporation, or to practice as an interior decorator or a salesperson in a retail home furnishings store, a home improvement products store, or a wholesale furnishings or fixtures showroom. The graduate will also be prepared for transfer to an accredited professional program in interior design or architecture.

### AAS – INTERIOR AND ARCHITECTURAL DESIGN

70 credit hours

#### FIRST YEAR

##### First Semester

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

ECON 1301 Introduction to Economics

INDS 1301 Basic Elements of Design

INDS 1341 Color Theory and Application

INDS 1371 Introduction to Green Design

##### Second Semester

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

INDS 1319 Technical Drawing for Interior Designers

INDS 1351 History of Interiors I

INDS 1372 Computer-Aided Drafting for Interior Designers

INDS 1373 Green Interiors I

##### Summer

MATH 1314 College Algebra<sup>2</sup>

SPCH 1311 Fundamentals of Speech Communication

#### SECOND YEAR

##### First Semester

HUMA 1301 Introduction to the Humanities

INDS 1315 Materials, Methods and Estimating

INDS 1352 History of Interiors II

INDS 2313 Residential Design I

INDS 2315 Lighting for Interior Designers

##### Second Semester

ENGL 1301 Composition/Rhetoric I

INDS 1345 Commercial Design I

INDS 2321 Presentation Drawing

INDS 2330 Interior Design Building Systems

PHED/DANC Any activity course

### Summer

INDS 2335 Residential Design II

INDS 2373 Green Interiors II (Capstone)

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

1 Tech Prep course which may have been completed in high school

2 College Algebra level or higher required

## CERTIFICATE

### INTERIOR AND ARCHITECTURAL DESIGN CERTIFICATE

42 credit hours

#### FIRST YEAR

##### First Semester

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

INDS 1301 Basic Elements of Design

INDS 1341 Color Theory and Application

INDS 1371 Introduction to Green Design

##### Second Semester

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

INDS 1319 Technical Drawing for Interior Designers

INDS 1351 History of Interiors I

INDS 1373 Green Interiors I

#### SECOND YEAR

##### First Semester

INDS 1352 History of Interiors II

INDS 2313 Residential Design I

INDS 2321 Presentation Drawing

##### Second Semester

INDS 1345 Commercial Design I

INDS 2335 Residential Design II

INDS 2373 Green Interiors II (Capstone)

1 Tech Prep course which may have been completed in high school

## MARKETABLE SKILLS ACHIEVEMENT AWARD

### MSAA – INTERIOR AND ARCHITECTURAL DESIGN

12 credit hours

The Marketable Skills Achievement Award in Interior and Architectural Design provides the basic skills for those students who want to acquire basic design office skills or update their present skills.

*Prerequisite: Basic understanding of interior design office environment.*

*Approval of department is required. Students in Interior and Architectural Design Marketable Skills will receive training in several diversified areas of design. This program emphasizes the interior design office environment.*

### Career Options:

Students completing the marketable skills certificate program will receive quality training for the following fields:

- Assistant in an interior design or architectural firm
- Assistant in space planning or facility management department of any large corporation
- Retail office furniture store

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

DFTG 1317 Architectural Drafting - Residential  
 INDS 1301 Basic Elements of Design  
 INDS 1341 Color Theory and Application  
 INDS 1345 Commercial Design I (Capstone)

## **INTERPRETER PREPARATION PROGRAM/DEAF**

*Also see American Sign Language on page 55.*

### **Department Chair:**

Henry Whalen . . . . . SCC-B135 . . . . . 972.881.5152

### **Academic Advisor:**

Caryn Hawkins . . . . . PRC-F133 . . . . . 972.377.1655

Because of the passage of the Americans with Disabilities Act, there is currently a national and statewide shortage of interpreters. Moreover, the quality as well as the quantity of the interpreters that the market demands is increasing.

The Interpreter Preparation Program/Deaf (IPPD) provides a focused and balanced education for students who desire to become sign language interpreters. With an emphasis on receptive skills, the program concentrates on synthesizing the study of American Sign Language (ASL), Deaf Culture and interpreting as a profession. Interpreting requires excellence in ASL and a thorough knowledge of oneself and one's ethics because interpreters are privy to confidential information.

Collin's IPPD program has a greater number of deaf teachers and ASL assistants than non-deaf teachers and ASL assistants, which allows students the opportunity to become fluent in ASL and to develop culturally appropriate behaviors and responses.

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

### **PASS/FAIL OPTION**

Non-degree-seeking students may take a sign language class as pass/fail. Degree-seeking students should not pursue this option. The pass/fail option will not satisfy the degree-seeking transfer requirements.

*Note: Students may not convert a pass/fail grade to a letter grade. Foreign language classes, including sign language, cannot be audited. See page 23 for details.*

### **Career Opportunities**

The career opportunities for persons with an IPPD Associate of Applied Science degree and appropriate certification are broad and varied and include educational and community-based employment. In addition, many interpreters are self-employed and work as independent contractors.

Career opportunities for persons with an Interpreter Trainee certificate are more limited.

## **AAS – INTERPRETER PREPARATION PROGRAM/DEAF**

68 credit hours

### **FIRST YEAR**

#### **First Semester**

COSC 1300 Computers and Technology

*ENGL 1301 Composition/Rhetoric I*

*MATH 1332 College Mathematics<sup>1</sup>*

SGNL 1401 American Sign Language (ASL): Beginning I+

*SPCH 1311 Fundamentals of Speech Communication*

#### **Second Semester**

SGNL 1402 American Sign Language (ASL): Beginning II+

SLNG 1311 Fingerspelling and Numbers

SLNG 1447 Deaf Culture

*PHED/DANC Any activity course<sup>2</sup>*

Technical Core #

#### **Summer**

*PHIL 2306 Introduction to Ethics<sup>3</sup>*

SGNL 2301 American Sign Language (ASL): Intermediate I +

### **SECOND YEAR**

#### **First Semester**

BUSG 2309 Small Business Management

*PSYC 2302 Applied Psychology*

SGNL 2302 American Sign Language (ASL): Intermediate II +

SLNG 1321 Introduction to the Interpreting Profession

Technical Core #

#### **Second Semester**

SLNG 2266 Practicum I - Sign Language Interpretation and Translation

SLNG 2301 Interpreting I

Technical Core #

#### **Summer**

SLNG 2267 Practicum II - Sign Language Interpretation and Translation (Capstone)

SLNG 2311 Interpreting in Specialized Settings

SLNG 2331 Interpreting III

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- 2 PHED 1338 is recommended for IPPD majors
- 3 PHIL 2306 is recommended for IPPD majors
- # Technical Core: Students MUST select 3 of the following courses (9 credit hours), including no more than 3 credit hours of CRIJ or SOCI, with the approval of the Department Chair to complete the Technical Core: ANTH 2351; BMGT 2309; BUSI 1307; CRIJ 1301, CRIJ 1306 or CRIJ 1313; DRAM 1351; ENGL 1302; SLNG 1391; SOCI 1306 or SOCI 2319; SRGT 1301
- + American Sign Language courses are also transfer courses and may be used, at some institutions, to satisfy a Foreign Language requirement.

## CERTIFICATE

### INTERPRETER TRAINEE CERTIFICATE

34 credit hours

#### FIRST YEAR

##### First Semester

SGNL 1401 American Sign Language (ASL): Beginning I +

SLNG 1447 Deaf Culture

Elective \*

Elective \*

##### Second Semester

SGNL 1402 American Sign Language (ASL): Beginning II +

SLNG 1311 Fingerspelling and Numbers

*PHED/DANC Any activity course*<sup>1</sup>

Elective \*

##### Summer

SGNL 2301 American Sign Language (ASL): Intermediate I +

#### SECOND YEAR

##### First Semester

SGNL 2302 American Sign Language (ASL): Intermediate II +

SLNG 1321 Introduction to the Interpreting Profession (Capstone)

1 May substitute PHED 1338

\* Electives (9 credit hours): ANTH 2351, BMGT 2309, BUSG 2309, BUSI 1307, DRAM 1351, ENGL 1301, or ENGL 1302

+ American Sign Language courses are also transfer courses and may be used to satisfy a Foreign Language requirement

## MARKETING

*Also a Tech Prep Program*

### Department Chair:

Gloria Cockerell . . . . . SCC-J247 . . . . . 972.881.5736

### Academic Advisor:

Tom Bailey . . . . . PRC-F131 . . . . . 972.377.1771

Debra Lamb . . . . . SCC-G151 . . . . . 972.881.5165

Marketing incorporates professional education courses to prepare individuals for career paths with retail or wholesale organizations, profit or non-profit organizations, governmental agencies, and academic institutions.

Collin's Marketing program is designed to give a thorough background in aspects of marketing and to provide methods for improving skills for people already employed in marketing careers. Marketing students who have questions should visit with the department chair.

Through a transfer agreement, students may earn their associate of applied science (AAS) degree with a Marketing major or a specialization in Business Management from Collin and transfer to the University of North Texas (UNT), UT Brownsville, Texas A&M University-Commerce, or Tarleton State University and earn bachelor of applied arts and science (BAAS) and bachelor of applied technology (BAT) degrees.

Other area universities that accept this degree include

the University of Texas at Arlington, Texas A&M University-Commerce, Texas Christian University, Dallas Baptist University, Amberton University, LeTourneau University, and Northwood University.

The AAS (Degree) Specialization in International Business is for people who wish to work in international environments. Skill development in the areas of both marketing and management among various cultures is emphasized. A certificate in International Business is also offered.

Students planning to transfer to a college or university should check with the Collin academic advisor prior to beginning this program to verify course transferability. Tech Prep students who took collegiate-level courses in marketing while in high school may elect to receive college credit by contacting the Global EDGE office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

### Career Opportunities

Marketing provides the essential core of marketing practices and prepares students for positions in:

Advertising  
Consulting  
Customer Service  
Directing  
Export Management  
Import Management  
Industrial Marketing Management  
Intercultural Communications  
International Marketing  
Marketing Management  
Promotion  
Retailing  
Sales  
Sales Management  
Wholesaling

### AAS – MARKETING

61 credit hours

#### FIRST YEAR

##### First Semester

BMGT 1341 Business Ethics

ENGL 1301 Composition/Rhetoric I

MATH 1332 College Mathematics<sup>1</sup>

MRKG 1311 Principles of Marketing<sup>2</sup>

SPCH 1311 Fundamentals of Speech Communication

##### Second Semester

BMGT 1344 Negotiations and Conflict Management

BUSI 1311 Salesmanship

HUMA 1301 Introduction to the Humanities

IBUS 1305 Introduction to International Business and Trade

MRKG 2349 Advertising and Sales Promotion

*PHED/DANC Any activity course*



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

BMGT 1305 Communications in Management  
 BMGT 1391 Special Topics in Business Administration and Management, General  
 BUSG 2309 Small Business Management  
 COSC 1300 Computers and Technology  
 IBUS 1354 International Marketing Management

**Second Semester**

*ECON 1301 Introduction to Economics*<sup>4</sup>  
 MRKG 1301 Customer Relations<sup>2</sup>  
 MRKG 1302 Principles of Retailing<sup>2</sup>  
 MRKG 2348 Marketing Research and Strategies  
 MRKG 2381 Cooperative Education - Marketing/Marketing Management, General (Capstone)<sup>5</sup>

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- 2 Tech Prep course which may have been completed in high school
- 3 BMGT 1391 is a Special Topics course which may be taken for credit each time the topic changes. The current topic is Sales Management.
- 4 May substitute ECON 2301, ECON 2302, PSYC 2301, or PSYC 2302
- 5 May substitute IBUS 2341 or MRKG 1380

*Substitutions for WECM courses may be made only with written approval of the Department Chair.*

**AAS – INTERNATIONAL BUSINESS SPECIALIZATION**

61 credit hours

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

BMGT 1341 Business Ethics  
 COSC 1300 Computers and Technology  
*ENGL 1301 Composition/Rhetoric I*  
 IBUS 1305 Introduction to International Business and Trade  
 MRKG 1311 Principles of Marketing<sup>1</sup>

**Second Semester**

BMGT 1307 High Performance Work Teams<sup>2</sup>  
 IBUS 1301 Principles of Exports  
 IBUS 1302 Principles of Imports  
 IBUS 1354 International Marketing Management  
 IBUS 2341 Intercultural Management  
*PHED/DANC Any activity course*

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

BMGT 2309 Leadership  
*ECON 1301 Introduction to Economics*<sup>3</sup>  
*HUMA 1301 Introduction to the Humanities*  
 IBUS 1300 Global Logistics Management  
*MATH 1332 College Mathematics*<sup>4</sup>

**Second Semester**

BMGT 1303 Principles of Management  
 BMGT 1344 Negotiations and Conflict Management  
 IBUS 1341 Global Supply Chain Management  
 IBUS 1380 Cooperative Education - International Business/Trade/Commerce (Capstone)<sup>5</sup>  
*SPCH 1311 Fundamentals of Speech Communication*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 May substitute IBUS 2345
- 3 May substitute ECON 2301, ECON 2302, PSYC 2301, or PSYC 2302
- 4 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- 5 May substitute IBUS 2381

*Substitutions for WECM courses may be made only with written approval of the Department Chair.*

**AAS – MARKETING/BUSINESS MANAGEMENT SPECIALIZATION**

61 credit hours

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

BMGT 1303 Principles of Management  
 COSC 1300 Computers and Technology  
*ENGL 1301 Composition/Rhetoric I*  
 MRKG 1311 Principles of Marketing<sup>1</sup>  
*SPCH 1311 Fundamentals of Speech Communication*

**Second Semester**

BMGT 1307 High Performance Work Teams  
 BMGT 1344 Negotiations and Conflict Management  
*HUMA 1301 Introduction to the Humanities*  
 MRKG 1301 Customer Relations<sup>1</sup>  
 MRKG 1302 Principles of Retailing<sup>1</sup>  
*PHED/DANC Any activity course*

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

BMGT 2309 Leadership  
 BUSI 1311 Salesmanship  
 IBUS 1354 International Marketing Management  
*MATH 1332 College Mathematics*<sup>2</sup>  
 MRKG 2348 Marketing Research and Strategies

**Second Semester**

BMGT 1305 Communications in Management  
 BMGT 1341 Business Ethics  
 BMGT 2341 Strategic Management (Capstone)  
*ECON 1301 Introduction to Economics*<sup>3</sup>  
 MRKG 2349 Advertising and Sales Promotion

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- 3 May substitute ECON 2301, ECON 2302, PSYC 2301, or PSYC 2302

*Substitutions for WECM courses may be made only with written approval of the Department Chair.*

**CERTIFICATES****MARKETING CERTIFICATE**

18 credit hours

**First Semester**

BUSI 1311 Salesmanship  
 MRKG 1311 Principles of Marketing<sup>1</sup>  
 MRKG 2349 Advertising and Sales Promotion

**Second Semester**

MRKG 1301 Customer Relations<sup>1</sup>  
 MRKG 1380 Cooperative Education – Marketing/Marketing Management, General<sup>2</sup> (Capstone)  
 MRKG 2348 Marketing Research and Strategies

- 1 Tech Prep course which may have been completed in high school
- 2 May substitute MRKG 2381

*Substitutions for WECM courses may be made only with written approval of the Department Chair.*

**INTERNATIONAL BUSINESS SPECIALIZATION**

18 credit hours

**First Semester**

IBUS 1305 Introduction to International Business and Trade  
 Elective\*

**Second Semester**

IBUS 2341 Intercultural Management  
 Elective\*  
 Elective\*

**Summer**

IBUS 1380 Cooperative Education - International Business/Trade/Commerce (Capstone)<sup>1</sup>

- 1 May substitute IBUS 2381
- \* Electives (9 credit hours): IBUS 1300, IBUS 1301, IBUS 1302, IBUS 1341, IBUS 1354

*Substitutions for WECM courses may be made only with written approval of the Department Chair.*

**MUSIC , COMMERCIAL**

*Also see Music, page 62-63.*

**Department Chair:**

Chris Morgan . . . . . SCC-B183 . . . . .972.516.5010

**Academic Advisor:**

John Ciccio . . . . . SCC-G148 . . . . . 972.881.5563  
 Torrey West . . . . . PRC-F132 . . . . .972.377.1513

Collin's Commercial Music program provides career training in performance, audio engineering and sound reinforcement, electronic music, and composition/songwriting. Internship opportunities are available through the Cooperative Work Experience program for practical training in the field.

Many Collin graduates perform professionally or work in recording studios, tape duplication and editing facilities, or sound reinforcement companies.

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

**Career Opportunities**

The Commercial Music program prepares students for positions in:

Audio Duplication/Manufacturing  
 Audio Engineering  
 Digital Audio Editing  
 Instrumental/Vocal Arranging  
 Jingle Composition  
 Music Marketing  
 Music Transcribing  
 Performance  
 Studio Management  
 Synthesizer Programming

**AAS – COMMERCIAL MUSIC**

64 credit hours

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

ARTC 1325 Introduction to Computer Graphics  
 MUSB 1305 Survey of the Music Business  
 MUSC 1327 Audio Engineering I ~  
 MUSC 2427 Audio Engineering II ~  
 MUSI 1301 Music Fundamentals

**Second Semester**

MUSI 1116 Aural Skills I <sup>1</sup>  
 MUSI 1311 Music Theory I <sup>1</sup>  
*SPCH 1311 Fundamentals of Speech Communication*  
 Elective\*\*  
 Elective\*\*

## SECOND YEAR

### First Semester

ENGL 1301 *Composition/Rhetoric I*

MATH 1314 *College Algebra*<sup>2</sup>

MUSC 1171 Commercial Class Piano I<sup>3</sup>

MUSC 1323 Audio Electronics

MUSC 1331 MIDI I

Elective\*\*

### Second Semester

MUSB 2380 Cooperative Education - Music Management and Merchandising (Capstone)

MUSC 1172 Commercial Class Piano II<sup>4</sup>

MUSC 1405 Live Sound I

MUSC 2355 MIDI II

MUSI 1307 *Introduction to Music Literature*<sup>5</sup>

PHED/DANC *Any activity course*

PSYC 2301 *General Psychology*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

~ Taught in eight-week format. Also available in sixteen-week format.

1 Required for Music, Commercial Majors

2 Required; no options

3 May substitute MUSI 1181, departmental permission required

4 May substitute MUSI 1182, departmental permission required

5 Required to fulfill the Humanities/Fine Arts core requirement

\*\* Electives: (10 credit hours) Any MUAP courses (maximum of 8 credit hours), any MUEN courses (maximum of 4 credit hours), MUSB 2301, MUSB 2355, MUSC 1209, MUSC 1303, MUSC 1321, MUSC 1330, MUSC 1333, MUSC 2314, MUSC 2330, MUSC 2345, MUSC 2351, MUSC 2356, MUSC 2447, MUSC 2448, MUSI 1117, MUSI 1183, MUSI 1184, MUSI 1192, MUSI 1193, MUSI 1312, MUSI 1386, MUSI 2116, MUSI 2117, MUSI 2181, MUSI 2182, MUSI 2192, MUSI 2193, MUSI 2311, or MUSI 2312

## CERTIFICATE

### AUDIO ENGINEERING CERTIFICATE

31 credit hours

### FIRST YEAR

#### First Semester

MUSB 1305 Survey of the Music Business

MUSC 1323 Audio Electronics

MUSC 1327 Audio Engineering I~

MUSC 1331 MIDI I

MUSC 2427 Audio Engineering II ~

#### Second Semester

MUSB 2301 Music Marketing

MUSC 1405 Live Sound I

MUSC 2447 Audio Engineering III ~

MUSC 2448 Audio Engineering IV ~ (Capstone)

~ Taught in eight-week format. Also available in sixteen-week format.

## NURSING

### Program Director:

Nell Ard, Ph.D.,

CNS, RNC . . . . . CPC-B336 . . . . . 972.548.6772

### Academic Advisor:

Erin Darity . . . . . CPC-A108B . . . . . 972.548.6778

Collin's Associate Degree Nursing (ADN) Program prepares students to make application to the Board of Nurse Examiners for licensure as a registered nurse. The nursing curriculum is approved by the Board of Nurse Examiners for the State of Texas and accredited by the National League for Nursing Accrediting Commission (NLNAC). 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/she is ineligible for licensure, he/she may petition the board for a declaratory order. This should be done prior to entering the program. Contact the program director for further information.

The course of study consists of approved nursing courses from the Workforce Education Course Manual of Texas. These courses must be taken in sequence to assure progression of content from simple to complex.

Collin County healthcare facilities enthusiastically support the ADN program. Several healthcare facilities throughout the Metroplex are used for the clinical experience. The role of the nurse continues to change in an evolving healthcare system.

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

For students interested in transferring to a BSN program, please see the AA - Nursing Field of Study on page 63.

### FUNCTIONAL ABILITIES/CORE PERFORMANCE

#### STANDARDS STATEMENT

After initial acceptance to this program, all students are required to meet specific functional abilities - with or without accommodations - for successful completion of the program and to function safely and effectively in the variety of the profession's settings. The specific functional requirements are found in the Functional Abilities/Core Performance Standards documents provided in the program information on the Nursing website [www.ccccd.edu/nursing](http://www.ccccd.edu/nursing). Students who think they may not be able to meet the functional standards and need accommodation are encouraged to contact the college ACCESS department as soon as this program is of interest.

### ACCREDITATION

The National League for Nursing Accrediting Commission has granted continued re-accreditation to the Nursing program for eight years. They may be contacted at:

61 Broadway

New York, NY 10006

1.800.669.1656, extension 153

## SCHOLARSHIPS

Various scholarships are available to students when they have been accepted into the Nursing Program. Most scholarships are awarded based on financial need. Other types of monetary support are available through the college's Financial Aid Office.

## ADDITIONAL ADMISSIONS REQUIREMENTS

Admission to the Nursing Program is selective. Admission to the college does not guarantee admission to the Nursing Program. Registration is by permission only. Information and applications may be obtained from the program director, the Health Sciences and Emergency Services Office or the Nursing website: [www.ccccd.edu/nursing](http://www.ccccd.edu/nursing).

- Complete pre-entrance course requirements with a minimum 2.5 GPA
- Earn a GPA of 2.5 or greater on all courses applicable to the Nursing program.
- Submit official copies of all college transcripts
- Complete the PSB (Nursing School Aptitude Exam) prior to the Jan. 31 or July 31 deadline with a satisfactory result
- Successful completion of drug screen, background check and physical/mental competencies
- Completion of immunizations required by the Texas Department of Health (TDH)\*

\* It is important to note that one of the required vaccinations, Hepatitis B, consists of a three dose series, which can take up to 7 months to complete. Individuals unable to receive the HBV must inform the program director. In such cases, the applicant must sign a declination form. All immunizations must be complete before the first clinical visit.

**Health Insurance** – All nursing students are required to show proof of health insurance prior to starting clinical rotations each semester. For information on student insurance plans, contact the Health Science Emergency Services Office at 972.548.6678.

Placement in mathematics and English courses is based upon the results of each student's assessments and subjects completed before admission.

## AAS – NURSING

72 credit hours

### Prerequisites:

BIOL 2401 Anatomy and Physiology I  
 BIOL 2402 Anatomy and Physiology II  
 BIOL 2421 Microbiology  
 MATH 1342 Statistics<sup>1</sup>

## FIRST YEAR

### First Semester

ENGL 1301 Composition/Rhetoric I  
 PSYC 2301 General Psychology<sup>2</sup>  
 RNSG 1219 Integrated Nursing Skills I  
 RNSG 1360 Clinical I - Nursing - Registered Nurse Training  
 RNSG 1523 Introduction to Professional Nursing for Integrated Programs

## Second Semester

PSYC 2314 Life Span Psychology  
 RNSG 1229 Integrated Nursing Skills II  
 RNSG 1461 Clinical II - Nursing - Registered Nurse Training  
 RNSG 2504 Integrated Care of the Client with Common Health Care Needs

## SECOND YEAR

### First Semester

RNSG 2460 Clinical III - Nursing - Registered Nurse Training  
 RNSG 2514 Integrated Care of the Client with Complex Health Care Needs  
 SOCI 1301 Introduction to Sociology<sup>3</sup>

### Second Semester

HUMA 1301 Introduction to the Humanities  
 RNSG 2207 Transition to Nursing Practice (Capstone)  
 RNSG 2535 Integrated Client Care Management  
 RNSG 2561 Clinical IV - Nursing - Registered Nurse Training

*Note: The communication competency is met throughout the degree.*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Required; no options
- 2 Required; no options
- 3 May substitute SOCI 1306

*Note: For those students considering completion of their BSN degree, the following additional courses are recommended:*

BIOL 1322 General Nutrition  
 CHEM 1405 Introduction to Chemistry I  
 - or -  
 CHEM 1411 General Chemistry I

## OFFICE SYSTEMS TECHNOLOGY

*Also a Tech Prep Program*

*Also a Marketable Skills Achievement Award Program*

### Department Chair:

Elizabeth Pannell . . . . . PRC-H111 . . . . . 972.377.1605

### Office Systems Technology Faculty Contacts:

Patricia Pierson . . . . . CPC-E209 . . . . . 972.548.6676  
 Linda Thompson . . . . . CPC-A200B . . . . . 972.548.6815  
 Mary Jane Tobaben . . . . . SCC-J116 . . . . . 972.881.5170

### Academic Advisor:

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

The Office Systems Technology Program is designed to incorporate both the technical and behavioral aspects of careers in the general, legal, or medical fields. Areas of study include: office keyboarding; word processing, desktop publishing; proofreading and editing; records management; business correspondence and communications; database, presentation, and spreadsheet software; office management; office accounting; and legal transcription.

Some of the courses required for this AAS degree are also excellent preparation for the experienced secretary who plans



to take the Certified Professional Secretary exam. The secretary who has already passed the CPS exam may apply for academic credit from Collin to be applied toward the AAS degree in Office Systems Technology.

Students planning to transfer to a college or university should check with the Collin academic advisor prior to beginning this program to verify course transferability. Tech Prep students who took collegiate-level courses in office systems technology while in high school may elect to receive college credit by contacting the Global Edge office. A petition for Tech Prep credit should be completed as soon as possible upon admission to Collin.

### Career Opportunities

Job opportunities in the office systems technology field include:

- Accounting Clerk
- Administrative Assistant/Secretary
- Human Resources Assistant
- Legal Office Support
- Medical Office Support
- Receptionist
- Virtual Office Assistant
- Word Processing Specialist

### AAS – OFFICE SYSTEMS TECHNOLOGY

60 credit hours

#### FIRST YEAR

##### First Semester

- COSC 1300 Computers and Technology
- ENGL 1301 Composition/Rhetoric I*
- POFT 1307 Proofreading and Editing
- POFT 1319 Records and Information Management I
- POFT 2301 Intermediate Keyboarding

##### Second Semester

- ACNT 1303 Introduction to Accounting I<sup>1</sup>
  - ECON 1301 Introduction to Economics*
  - MATH 1332 College Mathematics<sup>2</sup>*
  - PHED/DANC Any activity course*
  - POFI 2301 Word Processing - MS Word
  - POFT 2203 Speed and Accuracy Building
- Summer**
- HUMA 1301 Introduction to the Humanities*
  - Elective\*

#### SECOND YEAR

##### First Semester

- ITSC 1309 Integrated Software Applications I - MS Office<sup>1</sup>
- POFT 2312 Business Correspondence and Communication
- Elective\*
- Elective\*

##### Second Semester

- POFT 1349 Administrative Office Procedures II (Capstone)
- SPCH 1311 Fundamentals of Speech Communication*
- Elective\*
- Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 May substitute MATH 1324 or MATH 1314
- \* Electives (15 hours): BMGT 2309, HITT 1311, HPRS 2321, IMED 1301<sup>1</sup>, ITSW 1304, ITSW 1307, LGLA 1307, LGLA 2333, MDCA 1343, MRMT 1307, MRMT 2333, MRMT 2371, POFI 1301, POFI 2331, POFL 1359, POFL 1380, POFM 1300, POFM 1380, POFT 1380, POFT 2380, or SRGT 1301

### CERTIFICATES

#### OFFICE SYSTEMS TECHNOLOGY CERTIFICATE

26 credit hours

##### First Semester

- POFI 2301 Word Processing - MS Word
- POFT 1307 Proofreading and Editing
- POFT 1319 Records and Information Management I
- POFT 2203 Speed and Accuracy Building
- POFT 2301 Intermediate Keyboarding

##### Second Semester

- ITSC 1309 Integrated Software Applications I - MS Office<sup>1</sup>
- POFT 1349 Administrative Office Procedures II (Capstone)
- POFT 2312 Business Correspondence and Communication
- Elective \*

- 1 Tech Prep course which may have been completed in high school
- \* Elective (3 credit hours): ACNT 1303, POFI 2331, or POFT 1380

#### LEGAL OFFICE SUPPORT SPECIALIZATION

32 credit hours

##### First Semester

- LGLA 1307 Introduction to Law and the Legal Professions
- POFI 1301 Computer Applications I - MS Word Productivity
- POFT 1307 Proofreading and Editing
- POFT 1319 Records and Information Management I
- POFT 2203 Speed and Accuracy Building
- POFT 2301 Intermediate Keyboarding

##### Second Semester

- ITSC 1309 Integrated Software Applications I - MS Office<sup>1</sup>
- LGLA 2333 Advanced Legal Document Preparation
- POFL 1359 Legal Transcription
- POFT 1349 Administrative Office Procedures II (Capstone)
- Elective\*

- 1 Tech Prep course which may have been completed in high school
- \* Elective (3 credit hours): ITSW 1304, ITSW 1307, POFI 2301, POFI 2331, POFL 1380, or POFT 2312

## MEDICAL OFFICE SUPPORT SPECIALIZATION

38 credit hours

### First Semester

POFI 1301 Computer Applications I - MS Word Productivity  
POFT 1307 Proofreading and Editing  
POFT 2203 Speed and Accuracy Building  
POFT 2301 Intermediate Keyboarding  
SRGT 1301 Medical Terminology I

### Second Semester

ITSC 1309 Integrated Software Applications I - MS Office<sup>1</sup>  
MDCA 1343 Medical Insurance/Billing  
MRMT 1307 Medical Transcription I  
POFM 1300 Medical Coding Basics

### Summer

HPRS 2321 Medical Law and Ethics for Health Professionals  
POFT 1319 Records and Information Management I  
POFT 1349 Administrative Office Procedures II (Capstone)  
POFT 2312 Business Correspondence and Communication

1 Tech Prep course which may have been completed in high school

## MARKETABLE SKILLS ACHIEVEMENT AWARD

### MSAA – OFFICE SYSTEMS TECHNOLOGY

12 credit hours

ITSC 1309 Integrated Software Applications I<sup>1</sup>  
POFI 2301 Word Processing  
POFT 1319 Records and Information Management I  
POFT 2301 Intermediate Keyboarding

1 Tech Prep course which may have been completed in high school

## PARALEGAL/ LEGAL ASSISTANT

*Also see Associate of Arts - Paralegal/Legal Assistant, page 63-64.*

### Department Chair:

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

### Paralegal/Legal Assistant Faculty Contact:

Marsha Griggs . . . . . SCC-I204 . . . . . 972.881.5185

### Academic Advisor:

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

Law firms, corporations and governmental agencies hire paralegals/legal assistants to manage an array of legal responsibilities under the direction and supervision of a licensed attorney. Paralegals must be proficient in computer skills, legal terminology and legal procedures. The AAS degree in Paralegal/Legal Assistant provides excellent training in these areas and offers opportunities for specialization.

Texas Woman's University (TWU) and Collin Paralegal/Legal Assistant programs entered an articulation agreement effective fall 1999, which establishes a plan for students to obtain an AAS degree from Collin and a Bachelor of Science in Government - Legal Studies Emphasis degree from TWU. A similar articulation agreement, effective fall 2004, has been established with Texas A&M University-Commerce for the Bachelor of Arts/Science in Political Science with Emphasis in Paralegal Studies degree.

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

### Career Opportunities

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

- Law Firms
- Corporations
- Governmental agencies

Responsibilities routinely performed by paralegals/legal assistants include:

- Drafting legal documents
- Performing legal research
- Obtaining information relevant to cases
- Interviewing clients and witnesses
- Assisting with trial preparation

## AAS – PARALEGAL/LEGAL ASSISTANT

63 credit hours

### FIRST YEAR

#### Fall Semester

COSC 1300 Computers and Technology<sup>1</sup>  
*ENGL 1301 Composition/Rhetoric I*  
LGLA 1307 Introduction to Law and the Legal Professions  
*MATH 1332 College Mathematics*<sup>3</sup>  
Elective\* Technology Elective

#### Spring Semester

*ECON 1301 Introduction to Economics*<sup>4</sup>  
ENGL 1302 Composition/Rhetoric II  
LGLA 1303 Legal Research  
PSYC 2302 Applied Psychology<sup>5</sup>

#### Summer

*HUMA 1301 Introduction to the Humanities*  
LGLA 1342 Federal Civil Litigation  
Elective\*\*

### SECOND YEAR

#### Fall Semester

LGLA 1344 Texas Civil Litigation  
LGLA 1353 Wills, Trusts, and Probate Administration  
LGLA 2303 Torts and Personal Injury Law  
LGLA 2311 Business Organizations  
*SPCH 1311 Fundamentals of Speech Communication*

#### Spring Semester

LGLA 1355 Family Law  
LGLA 2239 Certified Legal Assistant Review (Capstone)<sup>6</sup>  
*PHED/DANC Any activity course*  
Elective\*\*  
Elective\*\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute BCIS 1305
- 2 Required; no options
- 3 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- 4 May substitute ECON 2301 or ECON 2302
- 5 May substitute ANTH 2351, GOVT 2301, GOVT 2302, HIST 1301, HIST 1302, HIST 2301, PSYC 2301, or SOCI 1301
- 6 Successful completion of the AAS Paralegal/Legal Assistant program meets the current eligibility requirements needed to qualify to take the Certified Legal Assistant Examination; however, additional education or professional experience may be required in the future.
- \* Technology Elective (3 credit hours): LGLA 2333 or POFI 1301
- \*\* Electives (9 credit hours): BUSI 2301, CRIJ 1306, CRIJ 1310, LGLA 1380, LGLA 2307, LGLA 2333, or RELE 1311

*Note: No substitutions permitted.*

## CERTIFICATE

### PARALEGAL GENERAL CERTIFICATE

29 credit hours

#### Fall Semester

LGLA 1307 Introduction to Law and the Legal Professions

LGLA 1342 Federal Civil Litigation

LGLA 2303 Torts and Personal Injury Law

Elective\* Technology Elective

#### Spring Semester

LGLA 1353 Wills, Trusts, and Probate Administration

LGLA 1355 Family Law

LGLA 1344 Texas Civil Litigation

Elective\*\* Law Elective

#### Summer

LGLA 1303 Legal Research

LGLA 2239 Certified Legal Assistant Review (Capstone)<sup>1</sup>

- 1 Successful completion of the Paralegal Certificate program does not, in and of itself, qualify a student to take the Certified Legal Assistant Examination. Additional education or professional experience may be required.
- \* Technology Elective (3 credit hours): BCIS 1305, COSC 1300, LGLA 2333, or POFI 1301. If a student is planning further study in a business-related area, the student should take BCIS 1305 rather than COSC 1300.
- \*\* Elective (3 credit hours): BUSI 2301, CRIJ 1306, CRIJ 1310, LGLA 1380, LGLA 2307, LGLA 2311, LGLA 2333, or RELE 1311

## REAL ESTATE

### Department Chair:

Mary Milford . . . . . PRC-H210 . . . . . 972.365.1801

### Academic Advisor:

Al Gober . . . . . PRC-F134 . . . . . 972.377.1780

Real estate is a dynamic field in which highly motivated men and women can and do create their own success stories. The degree program in real estate is designed with flexibility to allow students to successfully achieve a goal, whether it be personal knowledge, receipt of a degree, completion of a certificate program, transfer to a college or university or real estate licensure.

Students will explore a variety of topics including fundamentals and principles of real estate; sources of financing; state and federal influences on financing; legal rights of owners, buyers and brokers; property appraisal; contract negotiations; and closing. An excellent instructional staff and a cooperative education program with local brokers give real estate students at Collin a personalized, practical, high quality educational experience.

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

### Career Opportunities

The study of real estate can be the beginning of an interesting and profitable career. Real estate is a vast and complex industry, and career options are numerous. Some of the possibilities include:

- Appraisal
- Brokerage
- Counseling
- Education
- Finance
- Property Development
- Property Management

### AAS – REAL ESTATE

62 credit hours

#### FIRST YEAR

##### First Semester

COSC 1300 Computers and Technology<sup>1</sup>

ENGL 1301 Composition/Rhetoric I

MATH 1332 College Mathematics<sup>3</sup>

PHED/DANC Any activity course

RELE 1301 Principles of Real Estate I

RELE 2301 Law of Agency

##### Second Semester

ENGL 1302 Composition/Rhetoric II

POFT 1127 Introduction to Keyboarding

RELE 1311 Law of Contracts

RELE 1325 Real Estate Mathematics

RELE 1338 Principles of Real Estate II

SPCH 1311 Fundamentals of Speech Communication

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

BUSI 1301 Introduction to Business

*ECON 1301 Introduction to Economics<sup>4</sup>*PSYC 2302 Applied Psychology<sup>5</sup>

RELE 1321 Real Estate Marketing

Elective\*

**Second Semester***HUMA 1301 Introduction to the Humanities*

RELE 1319 Real Estate Finance

RELE 2381 Cooperative Education - Real Estate (Capstone)

Elective\*

Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute BCIS 1305. If a student is planning further study in a business-related area, the student should take BCIS 1305 rather than COSC 1300.
- 2 Required; no options
- 3 May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- 4 May substitute ECON 2301 or ECON 2302
- 5 May substitute ANTH 2351, GOVT 2301, GOVT 2302, HIST 1301, HIST 1302, HIST 2301, PSYC 2301, or SOCI 1301
- \* Electives (9 credit hours):
  - A minimum of 3 hours must be taken from the following courses: RELE 1303, RELE 1307, RELE 1309, RELE 1315, RELE 1327, or RELE 2331.
  - The other 6 hours may be taken from the remaining courses listed above and/or the following: ACCT 2301, BMGT 1303, BUSG 2309, BUSI 2301, ITSW 1304, MRKG 1302, or RELE 1380.

**CERTIFICATES****REAL ESTATE BROKERS CERTIFICATE**

24 credit hours

**First Semester**

RELE 1301 Principles of Real Estate I

RELE 1311 Law of Contracts

RELE 2301 Law of Agency

RELE 1338 Principles of Real Estate II

**Second Semester**

RELE 1319 Real Estate Finance

RELE 1321 Real Estate Marketing

Elective\*

Elective\*

- \* Electives (6 credit hours): RELE 1303, RELE 1307, RELE 1309, RELE 1315, RELE 1327, RELE 1380, RELE 2331, or RELE 2381, TREC-approved accredited college-related courses, or other coursework approved by the department chair

*Note: This certificate provides eligibility for a credentialing exam.*

**REAL ESTATE GENERAL CERTIFICATE**

15 credit hours

**First Semester**

RELE 1301 Principles of Real Estate I

RELE 2301 Law of Agency

RELE 1338 Principles of Real Estate II

**Second Semester**

Elective\*

Elective\*

- \* Electives (6 credit hours): RELE 1303, RELE 1307, RELE 1309, RELE 1311, RELE 1315, RELE 1319, RELE 1321, RELE 1325, RELE 1327, RELE 1380, RELE 2331, or RELE 2381, TREC-approved accredited college-related courses, or other coursework approved by department chair

*Note: This certificate provides eligibility for a credentialing exam.*

**RESPIRATORY CARE****Program Director:**

Abe Johnson . . . . . CPC-E310 . . . . . 972.548.6870

**Academic Advisor:**

Tori Hoffman . . . . . CPC-A108C . . . . . 972.548.6779

Collin's Respiratory Care Program prepares individuals for an allied health specialty in clinical care and management of respiratory disorders. The 22-month program graduates students with an AAS degree and qualifies the individual to apply for the Registered Respiratory Therapist board examination.

Respiratory care courses as well as mathematics or other science courses transferred from regionally accredited programs may not exceed five years of age. The minimum passing grade for all respiratory care lecture, lab and clinical course work is 75 percent.

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

Spaces in the Respiratory Care Program are limited. Please see the Respiratory Care Program Admission Packet for details on competitive admission.

**ACCREDITATION**

The Respiratory Program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation for Respiratory Care (CoARC). They may be contacted at:

**Commission on Accreditation of  
Allied Health Education Programs**

1361 Park Street  
Clearwater, FL 33756  
Phone: 727.210.2350  
Fax: 727.210.2354



## Committee on Accreditation for Respiratory Care

1248 Harwood Road  
Bedford, Texas 76021-4244  
Phone: 817.283.2835  
Fax: 817.354.8519

### 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.

### FUNCTIONAL ABILITIES/CORE PERFORMANCE

#### STANDARDS STATEMENT

After initial acceptance to this program, all students are required to meet specific functional abilities - with or without accommodations - for successful completion of the program and to function safely and effectively in the variety of the profession's settings. The specific functional requirements are found in the Functional Abilities/Core Performance Standards documents provided in the program information and application packets. Students who think they may not be able to meet the functional standards and need accommodation are encouraged to contact the college ACCESS department as soon as this program is of interest

### ADDITIONAL ADMISSION REQUIREMENTS

Registration is by permission only. Information and applications may be obtained online at [www.ccccd.edu/rcp](http://www.ccccd.edu/rcp) or the Health Sciences and Emergency Services Office. To apply, students must:

- Submit the required application form by the designated deadline
- Provide proof of high school graduation or GED
- Submit official copies of all college transcripts
- Complete Collin reading, writing and mathematics assessments
- Complete Psychological Services Bureau (PSB), Health Occupations Aptitude Exam
- Document acceptable findings on drug screens, background checks and physical/mental competencies
- Complete successfully on program admission criteria (see Admission Packet)
- Completion of immunizations required by the Texas Department of Health (TDH)\*

\* *It is important to note that one of the required vaccinations, Hepatitis B, consists of a three dose series, which can take up to 7 months to complete. Individuals unable to receive the HBV must inform the program director. In such cases the applicant must sign a declination form. All immunizations must be complete before assignment to clinical training.*

**Health Insurance** – All respiratory care students are required to show proof of health insurance prior to starting clinical rotations each semester. For information on student insurance plans, contact the Health Science Emergency Services Office at 972.548.6678.

### PROGRAM COMPLETION REQUIREMENTS

- In addition to completion of all respiratory care course work, students are required to complete comprehensive CRT and RRT Self Assessment Examinations during the second year of the program.
  1. The CRT Self Assessment Exam will be given in the fall semester of the second year.
  2. The RRT Self Assessment Exams will be given in the spring semester of the second year.
    - a. Written Registry Self Assessment Exam
    - b. Clinical Simulation Self Assessment ExaminationSatisfactory completion of these exams is required for graduation from the program. Students who do not pass any of these exams will be required to complete prescribed remediation assignments and retest. The program reserves the right to limit the number of retests. Repeat testing will be at student expense.
- Complete the written and skills exam in RSPT 2139 according to the standards set by the American Heart Association.

### CRT TRANSITION PROGRAM

The program, after admission to the college, offers a transition option to allow students who hold a CRT credential, have regionally accredited college credit in entry level respiratory care, and have one year of clinical experience as a respiratory therapist to enter the second year of the Respiratory Therapy Program, receive their degree and become registry-eligible. Content and clinical skill competency tests must be satisfactorily completed for students to enter this option. Contact the Program Director for more information.

### AAS – RESPIRATORY CARE

72 credit hours

#### PRE-ENTRANCE REQUIREMENTS

- A. Student must be prepared to take BIOL 2401 (Anatomy and Physiology I) by meeting one of the following requirements:
  1. Completion of two years of high school biology within the last three years, OR
  2. Completion of BIOL 1406 (General Biology I).
- B. Student must be prepared to enter college-level mathematics by either completion of MATH 0310 or by math placement at college algebra level.

*Note: Science and mathematics courses must be completed within five years of admission.*

### FIRST YEAR

#### First Semester

BIOL 2401 Anatomy and Physiology I  
RSPT 1160 Clinical I - Respiratory Care Therapy/Therapist  
RSPT 1201 Introduction to Respiratory Care  
RSPT 1307 Cardiopulmonary Anatomy and Physiology  
RSPT 1410 Respiratory Care Procedures I

**Second Semester**

BIOL 2402 Anatomy and Physiology II  
 RSPT 1361 Clinical II - Respiratory Care Therapy/Therapist  
 RSPT 1411 Respiratory Care Procedures II  
 RSPT 2310 Cardiopulmonary Disease  
 RSPT 2317 Respiratory Care Pharmacology

**Summer**

RSPT 1362 Clinical III - Respiratory Care Therapy/Therapist  
 RSPT 1471 Respiratory Care Procedures III

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

*MATH 1314 College Algebra*<sup>1</sup>  
*PSYC 2301 General Psychology*<sup>2</sup>  
 RSPT 2355 Critical Care Monitoring  
 RSPT 2360 Clinical IV - Respiratory Care Therapy/Therapist  
 RSPT 2453 Neonatal/Pediatric Cardiopulmonary Care

**Second Semester**

BIOL 2421 Microbiology  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities*  
 RSPT 2139 Advanced Cardiac Life Support  
 RSPT 2231 Simulations in Respiratory Care  
 RSPT 2247 Specialties in Respiratory Care  
 RSPT 2361 Clinical V - Respiratory Care Therapy/Therapist  
 (Capstone)

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 May substitute a higher-level mathematics course
- 2 May substitute PSYC 2302 or SOCI 1301

*Note: The communication competency is met throughout the degree.*

## **SEMICONDUCTOR MANUFACTURING TECHNOLOGY**

**Program Director:**

Wayne Jones ..... PRC-H213 ..... 972.377.1676

**Academic Advisor:**

Al Gober ..... PRC-F134 ..... 972.377.1780

Semiconductor manufacturing consists of a series of complex processes by which miniaturized electrical devices or microchips are created for electronic equipment. Students in this program will receive instruction in related academic subjects, safety procedures, statistical process control techniques, and the operation of machinery and equipment for the fabrication and processing of semiconductors.

Collin's Semiconductor Manufacturing Technology Program is a joint workforce education program with Richland College. The AAS degree program prepares students for employment as semiconductor equipment technicians. As an alternative, students may complete the 38-credit hour certificate program that certifies them for employment as a semiconductor equipment operator.

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

**Career Opportunities**

Students successfully completing the Semiconductor Manufacturing Technology Program will be prepared for employment in the following career areas:

Manufacturing Equipment Technician  
 Integrated Circuit Test Technician  
 Clean Room Technician

**AAS – SEMICONDUCTOR MANUFACTURING TECHNOLOGY**

68 credit hours

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

CETT 1403 DC Circuits<sup>1</sup>  
 CETT 1425 Digital Fundamentals<sup>1</sup>  
*ENGL 1301 Composition/Rhetoric I*  
 ENGR 1201 Introduction to Engineering  
*MATH 1314 College Algebra*<sup>2</sup>

**Second Semester**

CETT 1405 AC Circuits<sup>1</sup>  
 DFTG 1309 Basic Computer - Aided Drafting<sup>1</sup>  
 MATH 1316 Trigonometry  
 PHYS 1401 General Physics I

**Summer**

*ECON 1301 Introduction to Economics*  
*SPCH 1311 Fundamentals of Speech Communication*

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

CETT 1380 Cooperative Education - Computer Engineering  
 Technology/Technician  
 CETT 1429 Solid State Devices<sup>1</sup>  
 ELMT 2437 Electronic Troubleshooting, Service, and Repair  
*HUMA 1301 Introduction to the Humanities*  
*PHED/DANC Any activity course*  
 SMFT 1343 Semiconductor Manufacturing Technology I

**Second Semester**

CETT 1457 Linear Integrated Circuits  
 ELMT 2435 Certified Electronics Technician Training (Capstone)  
 SMFT 2343 Semiconductor Manufacturing Technology II  
 Elective\*

*Note: Preferred core choices in italics; other options available on page 77, unless otherwise noted.*

- 1 Tech Prep course which may have been completed in high school
- 2 College Algebra level or higher required
- \* Elective (3 credit hours): Any CETT (excluding CETT 1325 and CETT 1409), CPMT, EECT, ELMT, ENGR, ENTC, INMT, INTC, LOTT, or SMFT course not listed above with approval of Program Director.

## CERTIFICATE

### SEMICONDUCTOR MANUFACTURING OPERATOR CERTIFICATE

35 credit hours

#### First Semester

CETT 1403 DC Circuits<sup>1</sup>

CETT 1425 Digital Fundamentals<sup>1</sup>

CETT 1429 Solid State Devices<sup>1</sup>

ENGR 1201 Introduction to Engineering

SMFT 1343 Semiconductor Manufacturing Technology I

#### Second Semester

CETT 1380 Cooperative Education - Computer Engineering  
Technology/Technician

CETT 1405 AC Circuits<sup>1</sup>

ELMT 2435 Certified Electronics Technician Training (Capstone)

ELMT 2437 Electronic Troubleshooting, Service, and Repair

SMFT 2343 Semiconductor Manufacturing Technology II

1 Tech Prep course which may have been completed in high school

## SURGICAL TECHNOLOGY

#### Program Director:

Don Martin . . . . . CPC-B304 . . . . . 972.548.6212

#### Academic Advisor:

Erin Darity . . . . . CPC-A108B . . . . . 972.548.6778

The AAS in Surgical Technology at Collin is an 18-month program (two academic years) that will prepare the student for an entry-level position as a surgical technologist. The course of study consists of approved courses from the Workforce Education Course Manual of Texas. These courses must be taken in full sequence to assure progression of content from simple to complex. The surgical technology curriculum is approved by the Texas Higher Education Coordinating Board and modeled after the Association of Surgical Technologists national curriculum.

Upon the successful completion of the program, the graduate can apply to the Association of Surgical Technologists' Liaison Council on Certification to take the credentialing examination. After passing the certification examination, the graduate can use the designation CST behind the professional signature. Students must meet eligibility requirements for certification. National accreditation is being sought through the Commission on Accreditation of Allied Health Education Programs.

#### Special Admission Requirements

Admission to the program is selective and competitive. Students must apply for admission and meet all requirements of external clinical facilities participating in the program. These requirements include drug screens, background checks, selected immunizations and proof of personal health insurance. Consult the program's Admission Packet available on the website ([www.ccccd.edu/surgtech](http://www.ccccd.edu/surgtech)) for more details.

- Submission of a completed college admission application.
- Submission of GED Certificate or high school transcript noting graduation.

- Overall GPA of 2.5 from all college courses completed and applicable to the surgical technology degree plan.
- Completion of the Psychological Services Bureau (PSB) Health Occupations Aptitude Test.
- Submission to Health Sciences and Emergency Services in E302 on the Central Park Campus (CPC) of a completed and signed Surgical Technology Program Application Form by the first Friday in June. The Application Form is available on line in the Admission Packet at [www.ccccd.edu/st](http://www.ccccd.edu/st).
- Completion of or current enrollment in the four preentrance required courses with a grade of 'C' or above and a cumulative prerequisite course GPA of 2.5. These courses include BIOL 2401, BIOL 2402, SRGT 1301 and HPRS 1271. If prerequisite courses are being completed during the summer preceding admission, students will automatically receive conditional enrollment pending completion of prerequisites with a cumulative prerequisite GPA of 2.5.
- Be prepared to enter college algebra (Math 1314 or equivalent), or completion of college level math course within the past five years of the application date.
- Completion of the PSB for Health Occupations Examination prior to the deadline for application. The PSB for Nursing will be considered in lieu of the Health Occupations Exam. Results are good for one year. Satisfactory completion of math, reading and writing assessments administered by the college.
- Submit a handwritten, well-developed, one to two page essay discussing why surgical technology has been selected as a career choice and why attendance at the Collin College program is desired. Submit this essay with your Application Form.
- Request two letters of reference from employers or teachers (not friends or family) that can attest to your character and aptitude in a healthcare career. These letters should be directly mailed by whomever writes them to: Attn: Director of Surgical Technology Program, Health Sciences and Emergency Services, Collin County Community College District, 2200 W. University Dr., McKinney, Texas, 75070-8001.

#### Once admitted to the program:

- Be in good health and furnish physical and eye examination records. Forms will be provided by the Surgical Technology
- Program once the student is accepted into the program.
- Attend a student orientation meeting during the summer prior to program's first semester.
- Participate in assessment of Core Performance Standards as defined by College policy and be reviewed by the ACCESS department if accommodations are necessary.
- Pass a drug screen at the student's expense when requested and as directed by the program. Positive drug screens can result in students not being admitted to the program.

- Agree to a criminal background check. Findings from the background check that do not meet clinical affiliation specifications will result in the student not being admitted to the program.
- Provide proof of personal health insurance prior to clinical rotations.
- Purchase liability insurance prior to clinical rotations.
- Purchase school approved uniforms, if required, for clinical experiences.
- Complete and provide written proof of a negative TB skin test or clear chest x-ray post conversion dated within three months of the beginning of clinical rotations.
- Complete all immunizations recommended by the Texas Department of State Health Services (<http://www.dshs.state.tx.us/>) OR (<http://www.dshs.state.tx.us/immunize/default.shtm>)
  - o Tetanus, diphtheria – primary series or booster within the last 10 years
  - o MMR - one or two doses if born before 1957
  - o Varicella – 2 doses or documented age-appropriate vaccination or parent report/physician report of evidence of disease (chicken pox)
  - o Hepatitis A – two doses at 0 and 6-12 months
  - o Hepatitis B – three dose series at 0, 1 and 6 months
  - o Combined Hep A and B – three doses at 0, 1 and 6 months

### **Functional Abilities/Core Performance Standards Statement**

After initial acceptance to this program, all students are required to meet specific functional abilities with or without accommodations for successful completion of the program and to function safely and effectively in the variety of professional settings. The specific functional requirements are found in the Functional Abilities/Core Performance Standards documents provided in the program information packet and on the Surgical Technology website. Students who think they may not be able to meet the functional standards and need accommodation are encouraged to contact the college ACCESS department as soon as this program is of interest.

**Health Insurance** – All Surgical Technology students are required to show proof of personal health insurance prior to starting clinical rotations each semester. For information on student health insurance plans please contact Health Sciences and Emergency Services at 972.548.6677.

Students interested in the program should see an academic advisor for consultation and consult the college website for more specific information. An admission packet is available upon request from the Dean of Health Sciences and Emergency Services and on the Surgical Technology website.

## **AAS – SURGICAL TECHNOLOGY**

68 credit hours

### **FIRST YEAR**

Prerequisite

BIOL 2401 Anatomy and Physiology I  
 BIOL 2402 Anatomy and Physiology II  
 HPRS 1271 Introduction to the Healthcare System  
 SRGT 1301 Medical Terminology I

#### **First Semester**

BIOL 2421 Microbiology  
 ENGL 1301 Composition/Rhetoric I  
 HPRS 2201 Pathophysiology  
 PHED/DANC Any activity course  
 SRGT 1160 Clinical - Surgical Technology I  
 SRGT 1409 Fundamentals of Peri-operative Concepts and Techniques

#### **Second Semester**

MDCA 1348 Pharmacology and Administration of Medications  
 PSYC 2301 General Psychology<sup>1</sup>  
 SPCH 1321 Business and Professional Speaking<sup>2</sup>  
 SRGT 1161 Clinical - Surgical Technology II  
 SRGT 1541 Surgical Procedures I

### **SECOND YEAR**

#### **First Semester**

PHYS 1405 Conceptual Physics  
 SOCI 1301 Introduction to Sociology  
 SRGT 1542 Surgical Procedures II  
 SRGT 2260 Clinical - Surgical Technology III

#### **Second Semester**

BMGT 1307 High Performance Work Teams  
 PHIL 2303 Introduction to Logic<sup>3</sup>  
 SRGT 1171 Transition to Practice for the Surgical Technologist  
 SRGT 2130 Professional Readiness  
 SRGT 2361 Clinical - Surgical Technology IV (Capstone)

1 May substitute ANTH 2351, ECON 1301, ECON 2301, ECON 2302, GOVT 2301, GOVT 2302, HIST 1301, HIST 1302, HIST 2301, or PSYC 2302

2 Required; no options

3 Required to fulfill the Humanities/Fine Arts core requirement







# COURSE DESCRIPTIONS



## *a*

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### **ACCT 2301 Financial Accounting**

Accumulation and use of accounting information in business, fundamental concepts and records, operating cycle, income measurement, and preparation and analysis of financial statements. Lab required. 3 credit hours.

### **ACCT 2302 Managerial Accounting**

Uses of accounting data by business management, cost behavior analysis, control of manufacturing product costing, cost-volume-profit analysis, budgeting controls, standard costing, responsibility accounting, and capital budgeting. Lab required. Prerequisites: ACCT 2301. 3 credit hours.

### **ACNT 1303 Introduction to Accounting I**

A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. Prerequisite: POFT 1329 or consent of Department Chair. 3 credit hours. (W)

### **AERS 1105 The Air Force Today I**

Introduces students to the U.S. Air Force and the Air Force Reserve Officer Training Corps (AFROTC); includes Officership, professionalism, military customs and courtesies, and officer opportunities and benefits; AFROTC cadets must register for Leadership Laboratory as it complements this course with followership experience. 1 credit hour.

### **AERS 1106 The Air Force Today II**

Introduces students to the U.S. Air Force and the Air Force Reserve Officer Training Corps (AFROTC); includes Officership, professionalism, military customs and courtesies, and officer opportunities and benefits; AFROTC cadets must register for Leadership Laboratory as it complements this course with followership experience. 1 credit hour.

### **AERS 2103 The Development of Air Power I**

Introduces students to the U.S. Air Force and the Air Force Reserve Officer Training Corps (AFROTC); includes Officership, professionalism, military customs and courtesies, and officer opportunities and benefits; AFROTC cadets must register for Leadership Laboratory as it complements this course with followership experience. 1 credit hour.

**AERS 2104 The Development of Air Power II**

Introduces students to the U.S. Air Force and the Air Force Reserve Officer Training Corps (AFROTC); includes Officership, professionalism, military customs and courtesies, and officer opportunities and benefits; AFROTC cadets must register for Leadership Laboratory as it complements this course with followership experience. 1 credit hour.

**ANTH 2301 Physical Anthropology**

Overview of human origins and cultural adaptations combining study of our nearest relatives, the chimpanzees, with the analysis of reproductions of fossil bones. Unit concerning forensic anthropology explains how crimes can be solved from analysis of skeletal material; students work with replicas of human bone. Opportunity to participate in field trip to zoo. 3 credit hours.

*Note: Students may take either ANTH 2301 or ANTH 2302 but not both.*

**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.

*Note: Students may take either ANTH 2301 or ANTH 2302 but not both.*

**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, and linguistics. 3 credit hours.

*Note: Students may take either ANTH 2346 or HUMA 2323 but not both.*

**ANTH 2351 Cultural Anthropology**

Utilization of the comparative method to examine the concepts of culture and society. The social and cultural beliefs and practices of people of diverse ethnic backgrounds are investigated and compared. May include anthropological fieldwork. 3 credit hours.

**ANTH 2389 Academic Co-op Anthropology**

Integrates on-campus study with practical hands-on work experience in anthropology. In conjunction with class seminars, the student will set specific goals and objectives in the study of anthropology. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Instructor. 3 credit hours.

**ARAB 1411 Beginning Arabic I**

This course, which is designed for students with little or no prior training in the language, focuses on developing the four basic skills of speaking, reading, writing and listening, as well as the study of selected aspects of Arabic civilization. Instruction is enhanced by the use of audio and video materials. No prerequisites or corequisites. Lab required. 3 credit hours.

**ARAB 1412 Beginning Arabic II**

This course is a continuation of ARAB 1411. It continues the development of the four basic skills of speaking, reading, writing and listening, as well as the study of selected aspects of Arabic civilization. Instruction is enhanced by the use of audio and video materials. Lab required. Prerequisite: ARAB 1411 or consent of Instructor or Department Chair. 3 credit hours.

**ARCE 1321 Architectural Illustration**

Architectural drawing and sketching. Emphasizes freehand drawing, perspectives, delineation in various media, and development of students' graphical expression. Includes an introduction to various reproduction methods. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**ARCE 1352 Structural Drafting**

A study of structural systems including concrete foundations and frames, wood framing and trusses, and structural steel framing systems. Includes detailing of concrete, wood, and steel to meet industry standards including the American Institute of Steel Construction and The American Concrete Institute. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**ARCE 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 they relate to architecture for residential and commercial construction. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**ARTC 1302 Digital Imaging I**

Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions. Lab required. Prerequisite: ARTC 1325. 3 credit hours. (W)

**ARTC 1305 Basic Graphic Design**

Graphic design with emphasis on the visual communication process. Topics include basic terminology and graphic design principles. Lab required. 3 credit hours. (W)

**ARTC 1313 Digital Publishing I – InDesign**

The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout. Lab included. Prerequisite: ARTC 1305. 3 credit hours. (W)

**ARTC 1321 Illustration Techniques I**

A study of illustration techniques in various media. Emphasis on creative interpretation and disciplined draftsmanship for visual communication of ideas. Lab required. Prerequisite: ARTS 1316. 3 credit hours. (W)

**ARTC 1325 Introduction to Computer Graphics**

A survey of computer design concepts, terminology, processes, and procedures. Topics include computer graphics hardware, electronic images, electronic publishing, vector-based graphics, and interactive multimedia. Lab required. 3 credit hours. (W)

**ARTC 1327 Typography**

A study of letterforms and typographic concepts as elements of graphic communication. Emphasis on developing a current, practical typographic knowledge based on industry standards. Lab required. Prerequisite: ARTC 1353. 3 credit hours. (W)

**ARTC 1349 Art Direction I**

Creation of projects in art direction for advertising graphic campaigns encompassing products, services, or ideas. Topics include all campaign procedures from initial research and creative strategy to final execution of a comprehensive project. Lab required. Prerequisite: ARTC 1305. 3 credit hours. (W)



**ARTC 1353 Computer Illustration I**

Use of the tools and transformation options of an industry standard vector drawing program to create complex illustrations. Includes principles of layout and design and manipulation of text and graphics. Lab required. Prerequisite: ARTC 1325. 3 credit hours. (W)

**ARTC 2301 Illustration Techniques II**

Continued study of illustration media and techniques using digital and/or traditional tools. Emphasis on conceptualization and composition. Lab required. Prerequisite: ARTC 1321. 3 credit hours (W)

**ARTC 2305 Digital Imaging II – Photoshop**

Principles of digital image processing and electronic painting. Emphasis on bitmapped- or raster-based image marking and the creative aspects of electronic illustration for commercial and fine art applications. Lab included. Prerequisite: ARTC 1302. 3 credit hours. (W)

**ARTC 2311 History of Communication Graphics**

Survey of the evolution of graphic arts in relation to the history of art. Includes formal, stylistic, social, political, economic, and historical aspects. Emphasis on art movements, schools of thought, individuals, and technology as they interrelate with graphic arts. Lab required. 3 credit hours. (W)

**ARTC 2313 Digital Publishing II - InDesign**

Layout procedures from thumbnails and roughs to final comprehensive and printing; emphasis on design principles for the creation of advertising and publishing materials, and techniques for efficient planning and documenting projects. Lab required. Prerequisite: ARTC 1313. 3 credit hours. (W)

**ARTC 2335 Portfolio Development for Graphic Design**

Preparation of a portfolio comprised of completed graphic design projects. Evaluation and demonstration of portfolio presentation methods based on the student's specific area of study. Lab required. Prerequisite: Consent of Department Chair. 3 credit hours. (W)

**ARTC 2340 Computer Illustration II**

Advanced use of software capabilities with emphasis on various output procedures, the resolution of complex design issues, and concept development. Lab required. Prerequisite: ARTC 1353. 3 credit hours. (W)

**ARTC 2349 Art Direction II**

Mastery of advanced art direction projects with emphasis on selected topics in advertising campaigns. Includes written, oral, and visual skills. Lab required. Prerequisite: ARTC 1349. 3 credit hours. (W)

**ARTS 1301 Art Appreciation**

Introduction to the visual arts, emphasizing the understanding and appreciation of art. Reviews two- and three-dimensional art forms, methods, and media; examines the visual elements and principles of design; and briefly surveys art styles from the prehistoric to the 20th century. 3 credit hours.

**ARTS 1303 Art History I**

Survey of art history from prehistoric times to the Renaissance. Special consideration is given to the form and content of a work of art, as well as the social and cultural context in which the work is created. 3 credit hours.

**ARTS 1304 Art History II**

Survey of art history from the Renaissance period to the present. Special consideration is given to the form and content of a work of art, as well as the social and cultural context in which the work is created. 3 credit hours.

**ARTS 1311 Design I (Basic 2-D)**

Introduction to two-dimensional visual organization dealing with basic elements and principles of design. Exploration of black and white, color, and a variety of media. Prepares students for composition in painting, drawing, and other two-dimensional art courses. Lab required. 3 credit hours.

*Note: Students should expect additional supply costs.*

**ARTS 1312 Design II (Basic 3-D)**

Introduction to three-dimensional design problems utilizing various sculpture materials. Exploration of form and methods in a variety of media. Prepares students for sculpture and other three-dimensional art courses. Design I is not a prerequisite. Lab required. 3 credit hours.

*Note: Students should expect additional supply costs.*

**ARTS 1313 Historical Foundation of Photography/Imaging Technology**

Introduction to technology in the visual arts, designed to enhance artistic awareness. Includes a foundational approach to photography history and culture through the exploration of a variety of art works from the northern renaissance use of the camera obscura to the paradigm change of computer technology. Students will demonstrate knowledge of tools and materials through lab participation. 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.

*Note: Students should expect additional supply costs.*

**ARTS 1317 Drawing II**

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

*Note: Students should expect additional supply costs.*

**ARTS 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 ARTS 1316. 3 credit hours.

*Note: Students should expect additional supply costs.*

**ARTS 2312 Design IV (Advanced Design)**

Large-scale design projects combining 2-D and 3-D including installations and multisensory environments. Lab required. Prerequisites: ARTS 1311 and ARTS 1312. 3 credit hours.



**ARTS 2316 Painting I**

Introduction to painting including use of materials, techniques, color study, and composition. Various painting styles will be practiced. Lab required. Prerequisite: ARTS 1316. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2317 Painting II**

Increases the student's ability to use various techniques, color, and composition with acrylics, oils, and other media. Explores realistic and abstract approaches to painting. Emphasis on design, imagination, personal expression and painting style. Lab required. Prerequisite: ARTS 2316. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2323 Life Drawing I**

Drawing of the life model including instruction in anatomical and creative approaches to figure drawing. Emphasis on personal expression and creativity. Lab required. Prerequisite: ARTS 1316. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2324 Life Drawing II**

Continuation of study of the life model; emphasis on personal expression and creativity. Lab required. Prerequisite: ARTS 2323. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2326 Sculpture I**

Study of three-dimensional form and introduction to sculpture techniques including basic methods of modeling, construction, and simple casting procedures. Exploration of various media including stone, wood, metal, plaster, and paper. Lab required. Prerequisite: ARTS 1312. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2327 Sculpture II**

Continued application of three-dimensional form and sculpture techniques gaining experience in composition and problem solving in various media. Emphasis on creative expression and personal style. Lab required. Prerequisite: ARTS 2326. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2333 Printmaking 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.  
*Note: Students should expect additional supply costs.*

**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.  
*Note: Students should expect additional supply costs.*

**ARTS 2336 Papermaking/Bookbinding**

Elements of structure and principles of design using two and three-dimensional concepts in the fiber forms of papermaking and bookbinding. Lab required. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2341 Art Metals I**

Exploration of sculptural forms using non-ferrous and precious metals. Metal construction and jewelry making techniques including soldering, lost wax casting, cold connections, patinas and surface embellishment. Lab required. Prerequisite: ARTS 1312. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2342 Art Metals II**

Continuation of Art Metals I with emphasis on advanced techniques and individual creative expression. Lab required. Prerequisite: ARTS 2341. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2346 Ceramics I**

Introduction to ceramic design and methods including hand building techniques and use of the potter's wheel. Explores clays, glazing, and firing techniques including stoneware and raku. Lab required. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2347 Ceramics II**

Further study of ceramic design, method, and media with exploration of various clays, glaze compositions, and kiln operations. Emphasis on creative expression and personal style. Lab required. Prerequisite: ARTS 2346. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2348 Digital Art I**

Introduction to creating art on the computer; includes techniques with pencils, charcoal, crayons, pastels, watercolor, oils, and collage. Emphasis is placed on combining traditional art techniques with the computer. No previous computer experience necessary. Lab required. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2349 Digital Art II**

Continuation of ARTS 2348. Lab required. Prerequisite: ARTS 2348. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2356 Photography I**

Introduction to photography: basic camera operations and darkroom techniques; emphasis on visual imagination and design. Lab required. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2357 Photography II**

Intermediate black-and-white course; emphasis on developing a visual language, problem solving, craftsmanship, and learning to edit personal work. Technical considerations include print and negative quality, use of studio lighting, and large format cameras. Lab required. Prerequisite: ARTS 2356. 3 credit hours.  
*Note: Students should expect additional supply costs.*

**ARTS 2366 Watercolor I**

Introduction to watercolor including instruction in the use of brushes, papers, materials, and various painting techniques on wet and dry paper. Gain experience in mixing colors, color methods, and problem solving in the use of technique and in skillful observation of composition and painting style. Lab required. Prerequisite: ARTS 1316. 3 credit hours.  
*Note: Students should expect additional supply costs.*

### **ARTS 2367 Watercolor II**

Increases the student's ability to master technique, identify the different pigment properties of color and determine their best use. Exploration of different tools, papers, materials and techniques will be practiced. Emphasis on personal expression and painting style. Lab required. Prerequisite: ARTS 2366. 3 credit hours.

*Note: Students should expect additional supply costs.*

### **ARTS 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.

### **ARTV 1211 Storyboard**

Techniques of storyboarding including organizing a project's content and arranging it in a visual format. Lab required. 2 credit hours. (W)

### **ARTV 1303 Basic Animation - Flash**

Examination of concepts, characters, and storyboard for basic animation production. Emphasizes creating movement and expression utilizing traditionally or digitally generated image sequences. Lab required. Prerequisites: ARTC 1325 and ARTV 1211. 3 credit hours. (W)

### **ARTV 1341 3-D Animation I**

Three-dimensional (3-D) modeling and rendering techniques including lighting, staging, camera, and special effects. Emphasizes 3-D modeling building blocks using primitives to create simple and complex objects. Lab required. Prerequisites: ARTC 1325 and ARTV 1345 or consent of Instructor. 3 credit hours. (W)

### **ARTV 1343 Digital Sound**

Digitizing sound and incorporating it into multimedia or web titles for various delivery systems. Emphasizes compression issues, sampling, synchronizing, and resource management. Lab required. 3 credit hours. (W)

### **ARTV 1345 3-D Modeling and Rendering I – Maya**

Techniques of three-dimensional (3-D) modeling utilizing appropriate software. Includes the creation and modification of 3-D geometric shapes, use of a variety of rendering techniques, camera light sources, texture, and surface mapping. Lab required. Corequisite: ARTC 1325 or consent of Instructor. 3 credit hour (W)

### **ARTV 1351 Digital Video**

Producing and editing video and sound for multimedia or web productions. Emphasizes capture, editing, and outputting of video using a desktop digital video workstation. Lab required. Prerequisites: ARTC 1325 and ARTV 1211. 3 credit hours. (W)

### **ARTV 2301 2-D Animation I – Flash**

Skill development in the use of software to develop storyboards and two-dimensional animation including creating, importing, and sequencing media elements to create multimedia presentation. Emphasis on conceptualization, creativity, and visual aesthetics. Lab required. Prerequisite: ARTV 1303. 3 credit hours. (W)

### **ARTV 2330 2-D Animation II – Flash**

Advanced study of technical aspects of animation. Emphasizes aesthetic design and completion of an advanced animation project. Includes application of advanced skills and knowledge. Lab required. Prerequisite: ARTV 2301. 3 credit hours. (W)

### **ARTV 2335 Portfolio Development for Animation**

A course in the development of a professional portfolio to showcase the student's skills in animation. Includes self-promotion, resumes, portfolio distribution, and interview techniques. Lab required. Prerequisite: Consent of Department Chair. 3 credit hours. (W)

### **ARTV 2341 Advanced Digital Video**

Advanced digital video techniques for post-production. Emphasizes generation and integration of special effects, 2-D animation and 3-D animation for film, video, CD-ROM, and the Internet. Exploration of new and emerging compression and video streaming technologies. Lab required. Prerequisite: ARTV 1351. 3 credit hours. (W)

### **ARTV 2345 3-D Modeling and Rendering II – Maya**

A studio course focused on advanced 3-D modeling and rendering techniques using industry standard software; spline modeling, patch modeling, and other organic modeling techniques; learn advanced use of camera settings, lighting, and surfacing to create detailed environments; cover advanced topics such as particle and volumetric effects, and setting up a model with weight maps, hierarchies, bones, and constraints. Lab required. Prerequisite: ARTV 1345. 3 credit hours. (W)

### **ARTV 2351 3-D Animation II – Maya**

Advanced skill development in three-dimensional modeling and rendering techniques using lighting, staging, and special effects for digital output. Emphasis on the production of three-dimensional (3-D) animation as final digital outputting using modeling, rendering and animation software. Lab required. Prerequisite: ARTV 1341. 3 credit hours. (W)

### **ARTV 2372 Advanced Character Rigging and Animation**

Advanced work in 3-D animation. Students are exposed to state-of-the-art software and hardware with emphasis on 3-D modeling and character animation pertaining to animation for film, broadcast and video production. Lab required. Prerequisite: ARTV 2351. 3 credit hours. (W)

### **ARTV 2373 Advanced Interactive Design**

Interactive design using scripting and css. Topics include advanced interface design, testing, production, and communication with a server to deliver interactive content. Lab required. Prerequisite: IMED 1316 or consent of Instructor. 3 credit hours. (W)

## **b**

### **BCIS 1305 Business Computer Applications**

Introductory course in business information systems and business computer applications. Information system concepts are taught within the context of addressing business and organizational needs. This course emphasizes the role that information systems play in an organization and the key principles a manager needs to grasp to be successful. This course offers an overview of the entire information systems discipline while giving students a solid foundation for further study in advanced information system courses. Lab exercises and assignments provide the student

with hands-on experience using business computer applications including word processing, spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet. Lab required. 3 credit hours.

#### **BCIS 2390 Systems Analysis and Design**

Analysis of business information needs and preparation of specifications and requirements for appropriate data system solutions. Includes instruction in information requirements analysis, specification development and writing, prototype evaluation, and network application interfaces. Prerequisite: BCIS 1305 or consent of Instructor or Department Chair. 3 credit hours.

#### **BIOL 1322 General Nutrition**

Nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism with application to normal and therapeutic human nutritional needs. For biology and nutrition majors. 3 credit hours.

#### **BIOL 1323 Nutrition and Diet Therapy**

Applications of nutrition principles and techniques of nutrition care for healthy individuals and patients/clients at nutritional risk. Nutrition risk screening, interviewing/counseling methods, diet evaluation, basic diet calculations, and documentation. 3 credit hours.

#### **BIOL 1406 General Biology I\***

For science majors. Current knowledge in the fundamentals of biology from the molecular to cellular level of organization. General topics covered include basic biochemistry, metabolism, energetics, cell structure, DNA, genetics, viruses, and bacteria. Lab required. 4 credit hours.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMS). Please see page 75 for further information.*

#### **BIOL 1407 General Biology II\***

For science majors. Continuation of BIOL 1406. The biology of the protists, fungi, plants and animals with emphasis on the body systems. Also includes development, diversity, animal behavior and ecology. Dissection included. Lab required. Prerequisite: BIOL 1406. 4 credit hours.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMS). Please see page 75 for further information.*

#### **BIOL 1408 Introduction to Biology I**

For non-science majors. Survey of biology including molecular and cellular biology, genetics, DNA, microbiology, evolution, and ecology. Emphasis upon current topics in biology. Lab required. 4 credit hours.

#### **BIOL 1409 Introduction to Biology II**

For non-science majors. Continuation of BIOL 1408. The biology of the protists, fungi, plants and animals with emphasis on general human anatomy and physiology. Current topics in biology will be discussed. Dissection included. Lab required. Prerequisite: BIOL 1408. 4 credit hours.

#### **BIOL 1411 General Botany\***

For science majors. Study of structure and function of plants. Includes plant cells, tissues, organs, an evolutionary survey, and life histories of algae, fungi, mosses, liverworts, ferns and seed-

producing plants. Plants' reproductive and functional interactions with their environment and with man. Lab required. Prerequisite: BIOL 1406 or BIOL 1408. 4 credit hours.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMS). Please see page 75 for further information.*

#### **BIOL-1414 Introduction to Biotechnology**

*Formerly BITC-1311*

Overview of classical genetics, DNA structure, the flow of genetic information, DNA replication, gene transcription, protein translation. Principles of major molecular biology and genetic engineering techniques, including restriction enzymes and their uses, major types of cloning vectors, construction of libraries, Southern and Northern blotting, hybridization, PCR, DNA typing. Applications of these techniques in human health and welfare, medicine, agriculture and the environment. Introduction to the human genome project, gene therapy, molecular diagnostics, forensics, creation and uses of transgenic plants and animal and animal cloning and of the ethical, legal, and social issues and scientific problems associated with these technologies. Relevant practical exercises in the above areas. Lab required. 4 credit hours.

#### **BIOL 2389 Academic Co-op Biology**

Integrates on-campus study with practical hands-on work experience in biology. In conjunction with class seminars, the student will set specific goals and objectives in the study of biology. Contact the Cooperative Work Experience Office. Prerequisite: BIOL 1406 or BIOL 1408. 3 credit hours.

#### **BIOL 2401 Anatomy and Physiology I**

Study of cell structure and function, tissues, and the skeletal, muscular, and nervous systems. Emphasis is on structure, function, and the interrelationships of the human systems. Lab required. Prerequisite: BIOL 1406 with a grade of "C" or better within the last three years or consent of Department Chair. 4 credit hours.

#### **BIOL 2402 Anatomy and Physiology II**

Continued study of structure and function related to the human endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Additional topics include: composition and functions of blood; the immune response; fluid, electrolyte and pH balance; and human development. Emphasis is placed on the interrelationships of these systems. Lab required. Prerequisite: BIOL 2401 with a grade of "C" or better within the last five years. 4 credit hours.

#### **BIOL 2404 Human Anatomy and Physiology Basic**

A one-semester survey of the structure and function of the human body, including discussion and study of cells, tissues, organs, and systems. Not intended for allied health or science majors. Lab required. Prerequisite: SRGT 1301 or consent of Instructor. 4 credit hours.

#### **BIOL 2406 Environmental Biology**

Introduction to contemporary ecological problems of plant and animal communities. An analysis of ecosystems at the species, population, and community levels of organization, with a discussion of the effects of human interaction. Lab required, including field trips. 4 credit hours.



**BIOL 2416 Genetics**

Study of the principles of molecular and classical genetics, and the function and transmission of hereditary material. Special emphasis on molecular genetics and genetic engineering. Lab required. Prerequisite: BIOL 1406. 4 credit hours.

**BIOL 2421 Microbiology**

Classification, cell structure, metabolism, and historical concepts of microorganisms including bacteria, viruses, fungi, protozoa, Chlamydia and Rickettsia. Infectious diseases and immunology will be emphasized. Practical microbiology will include diagnostic microbiology of water, food, sewage, soil, and industrial applications. Laboratory methods are stressed, and experimentation with pure cultures of medical, environmental, and industrial importance is used extensively. Lab required. Prerequisite: BIOL 2402 with a grade of "C" or better within the last five years or consent of Department Chair. 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.

**BIOM 1280 Cooperative Education – Biomedical Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 2 credit hours. (W)

**BIOM 1355 Medical Electronic Applications**

Presentation of sensors, transducers, and supporting circuits used in medical instrumentation devices. Lab required. 3 credit hours. (W)

**BITC 1350 Special Studies and Bioethical Issues of Biotechnology**

Addresses current events, skills, attitudes, and behaviors pertinent to biotechnology and relevant to the professional development of the student. Includes exploration of ethical and legal behaviors in the context of the biotechnology industry. Prerequisites: BITC 1311 and BITC 1402 or consent of Instructor. 3 credit hours. (W)

**BITC 1402 Biotechnology Laboratory Methods and Techniques**

A study of laboratory operations, management, equipment, instrumentation, quality control techniques, and safety procedures. Includes laboratory practice in using pH meters, mixing buffers, performing measurements, preparing solutions, and performing separatory techniques. Lab required. Prerequisite/concurrent enrollment: BITC 1311. 4 credit hours. (W)

**BITC 2386 Internship – Biology Technician/Biotechnology Laboratory Technician**

A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Contact the Cooperative Work Experience Office. Prerequisites: Declared major of Biotechnology and have completed 9 hours of biotechnology courses and consent of Department Chair. 3 credit hours. (W)

**BITC 2387 Internship – Biology Technician/Biotechnology Laboratory Technician**

A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Contact the Cooperative Work Experience Office. Prerequisites: Declared major of Biotechnology and have completed 9 hours of biotechnology courses and consent of Department Chair. 3 credit hours. (W)

**BITC 2411 Biotechnology Laboratory Instrumentation**

Presentation of theory, applications, and operation of various analytical instruments. Addresses separation and identification techniques including electrophoresis, spectrophotometry, and chromatography. Lab required. Prerequisites: BITC 1311 and BITC 1402 or consent of Instructor. 4 credit hours. (W)

**BITC 2431 Cell Culture Techniques**

Theory and applications of cell culture techniques. Laboratory emphasis on the principles and practices of initiation, cultivation, maintenance, preservation of cell lines, and applications. Lab required. Prerequisites: BIOL 1406 or consent of Instructor. 4 credit hours. (W)

**BITC 2441 Molecular Biology Techniques**

In depth coverage of the theory and laboratory techniques in molecular biology with an emphasis on gene expression and regulation, recombinant DNA, and nucleic acids. Lab required. Prerequisites: BITC 1311 and BITC 1402 or consent of Instructor. 4 credit hours. (W)

**BMGT 1303 Principles of Management**

Concepts, terminology, principles, theories, and issues in the field of management. 3 credit hours. (W)

**BMGT 1305 Communications in Management**

Basic theory and processes of communication skills necessary for the management of an organization's workforce. 3 credit hours. (W)

**BMGT 1307 High Performance Work Teams**

A study of the basic principles of building and sustaining teams in organizations, including team dynamics and process improvement. 3 credit hours. (W)

**BMGT 1341 Business Ethics**

Discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social justice in management practices and business activities. Review of ethical responsibilities and relationships between organizational departments, divisions, executive management, and the public. 3 credit hours. (W)

**BMGT 1344 Negotiations and Conflict Management**

Theories which aid in the diagnosis of interpersonal and intergroup conflict. The role of manager as negotiator, intermediary, and problem solver. 3 credit hours. (W)

**BMGT 1382 Cooperative Education – Business Administration and Management, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)



**BMGT 1391 Special Topics in Business Administration and Management, General**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. 3 credit hours. (W)

**Sales Management**

Sales Management has the primary goal of teaching people how to manage others in the workplace. In this course students practice determining the needs of subordinates, cohorts, and superiors; controlling the work environment so as to encourage personnel to achieve; understanding necessary practices for promoting personnel so that they can fit into their new positions well; and evaluating practices so as to make adjustments as needed. Students also perform activities that teach them how adult learning differs from non-adult learning.

**BMGT 2309 Leadership**

Concepts of leadership and its relationship to management. Prepares the student with leadership and communication skills needed to motivate and identify. 3 credit hours. (W)

**BMGT 2310 Financial Management**

Emphasis on the development and use of accounting information to support managerial decision-making processes in manufacturing, service, and for-profit settings. Topics include managerial concepts and systems, various analysis for decision making, and planning and control. Prerequisite: ACCT 2301. 3 credit hours. (W)

**BMGT 2311 Management of Change**

Knowledge, skills, and tools that enable a leader/organization to facilitate change in a pro-active participative style. 3 credit hours. (W)

**BMGT 2331 Principles of Quality Management**

Quality of productivity in organizations. Includes planning for quality throughout the organization, analysis of costs of quality, and employee empowerment. 3 credit hours. (W)

**BMGT 2341 Strategic Management**

A study of the strategic management process, including analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment. 3 credit hours. (W)

**BMGT 2382 Cooperative Education – Business Administration and Management, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**BUSG 2309 Small Business Management**

Starting and operating a small business. Includes facts about a small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies, and legal issues. 3 credit hours. (W)

**BUSI 1301 Introduction to Business**

Survey of business operations in a capitalistic economy including ownership, management, marketing, finance and legal and regulatory environment. Includes the role of business in society and the development of a business vocabulary. 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 1311 Salesmanship**

Principles of personal salesmanship including methods and tasks applicable to a wide variety of industries and commercial settings. 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 2304 Business Writing and Technical Communications Seminar**

This course will engage students in an exploration of the ways in which complex organizations access, create, and transfer knowledge, and of the links between the document creation skills they learned in their technical communications classes and the larger tasks of knowledge management. Prerequisites: ENGL 1301, ENGL 1302, and ENGL 2311. 3 credit hours.

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**C****CDEC 1313 Curriculum Resources for Early Childhood Programs**

A study of the fundamentals of curriculum design and implementation in developmentally appropriate programs for children. Lab required. 3 credit hours. (W)

**CDEC 1317 Child Development Associate Training I**

Based on the requirements for the Child Development Associate National Credential (CDA). Topics on CDA overview, general observation skills, and child growth and development overview. The four functional areas of study are creative, cognitive, physical, and communication. Lab required. 3 credit hours. (W)

**CDEC 1319 Child Guidance**

An exploration of guidance strategies for promoting prosocial behaviors with individual and groups of children. Emphasis on positive guidance principles and techniques, family involvement and cultural influences. Practical application through direct participation with children. Lab required. 3 credit hours. (W)

**CDEC 1321 The Infant and Toddler**

A study of appropriate infant and toddler programs (birth to age 3), including an overview of development, quality routines, appropriate environments, materials and activities, and teaching/guidance techniques. Lab required. 3 credit hours. (W)

**CDEC 1323 Observation and Assessment**

A study of observation skills, assessment techniques, and documentation of children's development. Lab required. 3 credit hours. (W)

**CDEC 1330 Growth and Development: 6-14 Years**

Principles of child growth and development from six through thirteen years. Focus on physical, cognitive, social, and emotional domains of development. Lab required. 3 credit hours. (W)

**CDEC 1335 Early Childhood Development: 3-5 Years**

Principles of normal growth and development from three to five years. Emphasizes physical, intellectual, emotional, and social development. Lab required. 3 credit hours. (W)

**CDEC 1339 Early Childhood Development: 0-3 Years**

Principles of normal growth and development from conception through three years of age. Emphasizes physical, intellectual, and social/emotional development. Lab required. 3 credit hours. (W)

**CDEC 1356 Emergent Literacy for Early Childhood**

An exploration of principles, methods and materials for teaching young children language and literacy through a play-based integrated curriculum. Lab required. 3 credit hours. (W)

**CDEC 1358 Creative Arts for Early Childhood**

An exploration of principles, methods and materials for teaching children music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking. Lab required. 3 credit hours. (W)

**CDEC 1359 Children with Special Needs**

A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, intervention strategies, available resources, referral processes, the advocacy role, and legislative issues. Lab required. 3 credit hours. (W)

**CDEC 1392 Special Topics in Child Development**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Lab required. 3 credit hours. (W)

**How Words Work**

This course supports the ongoing learning process of students enrolled in an Early Childhood Education in Reading regarding language processes, how language is learned, and diversity in terms of language variation. Emphasis will be placed on what children need to know about sounds, letters and words in order to be competent readers and writers. The reciprocal relationship between reading and writing development is the theoretical frame for the course. Understandings of the phonological and orthographic language systems as they specifically relate to literacy development in young children will be constructed through teaching children. Students will design assessment and instruction for children based on their individual competencies related to letters, sounds, and their relationship, word analysis, and spelling. Prerequisite: CDEC 1356.

**CDEC 1394 Special Topics in Child Care Provider/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. This course was designed to be repeated multiple times to improve student proficiency. Lab required. 3 credit hours. (W)

**CDEC 1396 Special Topics in Child Care and Support Services 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. This course was designed to be repeated multiple times to improve student proficiency. Lab required. 3 credit hours. (W)

**CDEC 2166 Practicum – Child Care Provider/Assistant**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Lab required. Prerequisite: Consent of Department Chair. 1 credit hour. (W)

**CDEC 2304 Child Abuse and Neglect**

Methods used in the identification of physical, emotional, and sexual abuse and neglect with an emphasis on developing skills for working with children and families. Includes methods of referral to public and private agencies that deal with investigation and treatment. Lab required. 3 credit hours. (W)

**CDEC 2307 Math and Science for Early Childhood**

An exploration of principles, methods, and materials for teaching children math and science concepts and process skills through discovery and play. Lab required. 3 credit hours. (W)

**CDEC 2315 Diverse Cultural/Multilingual Education**

An overview of multicultural education to include relationship with the family and community to develop awareness and sensitivity to diversity related to individual needs of children. Lab required. 3 credit hours. (W)

**CDEC 2322 Child Development Associate Training II**

A continuation of the study of the requirements for the Child Development Associate National Credential (CDA). The six functional areas of study include safe, healthy, learning environment, self, social, and guidance. Lab required. 3 credit hours. (W)

**CDEC 2324 Child Development Associate Training III**

Continuation of the requirements for the Child Development Associate National Credential (CDA). Three of the 13 functional areas of study include family, program management and professionalism. Lab required. Prerequisites: CDEC 1317 and CDEC 2322. 3 credit hours. (W)

**CDEC 2326 Administration of Programs for Children I**

Application of management procedures for early child care education programs. Includes planning, operating, supervising, and evaluating programs. Topics cover philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication. Lab required. 3 credit hours. (W)

**CDEC 2328 Administration of Programs for Children II**

An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management advocacy, professionalism, fiscal analysis and planning parent education/partnerships, and technical applications in programs. Lab required. Prerequisite: CDEC 2326. 3 credit hours. (W)

**CDEC 2336 Administration of Programs for Children III**

An advanced study of the skills and techniques in managing early child care education programs. Lab required. Prerequisite: CDEC 2328. 3 credit hours. (W)

**CDEC 2340 Instructional Techniques for Children with Special Needs**

Exploration of development and implementation of curriculum for children with special needs. Lab required. 3 credit hours. (W)

**CDEC 2341 The School Age Child**

A study of appropriate programs for the school age child (5 to 13 years), including an overview of development, appropriate environments, materials, and activities and teaching/guidance techniques. Lab required. 3 credit hours. (W)

**CDEC 2385 Cooperative Education – Child Development**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Department Chair. 3 credit hours. (W)

**CETT 1303 DC Circuits**

A study of the fundamentals of direct current including Ohm's law, Kirchoff's laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Lab required. 3 credit hours. (W)

**CETT 1305 AC Circuits**

A study of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Lab required. 3 credit hours. (W)

**CETT 1325 Digital Fundamentals**

An entry-level course in digital electronics covering number systems, binary mathematics, digital codes, logic gates, Boolean algebra, Karnaugh maps, and combinational logic. Emphasis on circuit logic analysis and troubleshooting digital circuits. Lab required. 3 credit hours. (W)

**CETT 1329 Solid State Devices**

A study of diodes, transistor characteristics and other semiconductor devices, including analysis of static and dynamic characteristics, biasing techniques, and thermal considerations. Lab required. 3 credit hours. (W)

**CETT 1341 Solid State Circuits**

A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis. Lab required. 3 credit hours. (W)

**CETT 1380 Cooperative Education – Computer Engineering Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**CETT 1403 DC Circuits**

A study of the fundamentals of direct current including Ohm's law, Kirchoff's laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Lab required. 4 credit hours. (W)

**CETT 1405 AC Circuits**

A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Lab required. Prerequisite: CETT 1403 or consent of Instructor or Program Director. 4 credit hours. (W)

**CETT 1409 DC-AC Circuits**

Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchoff's laws, networks, transformers, resonance, phasors, capacitive and inductive and circuit analysis techniques. Lab required. 4 credit hours. (W)

**CETT 1421 Electronic Fabrication**

A study of electronic circuit fabrication techniques including printed circuit boards, wire wrapping, bread boarding, and various soldering techniques. Lab required. 4 credit hours. (W)

**CETT 1425 Digital Fundamentals**

An entry-level course in digital electronics covering number systems, binary mathematics, digital codes, logic gates, Boolean algebra, Karnaugh maps, and combinational logic. Emphasis on circuit logic analysis and troubleshooting digital circuits. Lab required. 4 credit hours. (W)

**CETT 1429 Solid State Devices**

A study of diodes, transistor characteristics and other semiconductor devices, including analysis of static and dynamic characteristics, biasing techniques, and thermal considerations. Lab required. 4 credit hours. (W)

**CETT 1431 Programming for Discrete Electronic Devices**

Introduction to a high level programming language such as BASIC, PASCAL, or "C." Includes structured programming and problem solving applicable to discrete electronic devices. Lab required. 4 credit hours. (W)

**CETT 1441 Solid State Circuits**

A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis. Lab required. 4 credit hours. (W)

**CETT 1445 Microprocessor**

An introductory course in microprocessor software and hardware, its architecture, timing sequence, operation, and programming, and discussion of appropriate software diagnostic language and tools. Lab required. Prerequisite: CETT 1425 or consent of Instructor or Program Director. 4 credit hours. (W)

**CETT 1457 Linear Integrated Circuits**

In depth coverage 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 or Program Director. 4 credit hours. (W)

**CETT 2333 Digital Computer Circuits**

A study of the three major component systems of a digital computer including arithmetic logic operations, RAM and ROM memory systems, and control systems. Lab required. 3 credit hours. (W)



### **CETT 2380 Cooperative Education – Computer Engineering Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **CETT 2439 Amplifier Analysis**

Advanced study of electronic amplifier applications including op-amps, audio amps, video amps, and other high frequency amplifiers. Lab required. Prerequisite: CETT 1429 or consent of Instructor or Program Director. 4 credit hours. (W)

### **CHEF 1301 Basic Food Preparation**

A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, material handling, heat transfer, sanitation, safety, nutrition, and professionalism. Professional chef uniform and kitchen tools required. Lab included. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CHEF 1302 Principles of Healthy Cuisine**

Introduction to the principles of planning, preparation, and presentation of nutritionally balanced meals. Adaptation of basic cooking techniques to lower the fat and caloric content. Alternative methods and ingredients will be used to achieve a healthier cooking style. Prerequisites: CHEF 1301 and IFWA 1310. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CHEF 1305 Sanitation and Safety**

A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards. 3 credit hours. (W)

### **CHEF 1310 Garde Manger**

A study of specialty foods and garnishes. Emphasis on design, techniques, and display of fine foods. Prerequisite: CHEF 1301. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CHEF 1314 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 work station, employment of appropriate cooking methods, plating, and saucing principles. Prerequisites: CHEF 1301 and CHEF 2331. Prerequisite/corequisite: RSTO 1304. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CHEF 1341 American Regional Cuisine**

A study of the development of regional cuisines in the United States with emphasis on the similarities in production and service systems. Application of skills to develop, organize, and build a portfolio of recipe strategies and production systems. Professional chef uniform and kitchen tools required. Prerequisite: CHEF 1301. Lab included. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CHEF 1345 International Cuisine**

The study of classical cooking skills associated with the preparation and service of international and ethnic cuisine. Topics include similarities between food production systems used in the United States and other regions of the world. Professional chef uniform and kitchen tools required. Prerequisite: CHEF 1301. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CHEF 1380 Cooperative Education – Culinary Arts/Chef Training**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **CHEF 2302 Saucier**

Instruction in the preparation of stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. Prerequisite: CHEF 1301. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CHEF 2331 Advanced Food Preparation**

Topics include the concept of pre-cooked food items and the preparation of canapés, hors d'oeuvres, and breakfast items. Professional chef uniform and kitchen tools required. Lab included. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CHEF 2341 Advanced Culinary Competition**

Skill development for culinary competition by offering advanced experience in salon presentations as well as hot food competition. Prerequisites: CHEF 1301, CHEF 1305, CHEF 1310, CHEF 1341, CHEF 1345, CHEF 2302, and CHEF 2331. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*



**CHEF 2380 Cooperative Education – Culinary Arts/Chef Training**  
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. To be completed during the last semester of the Culinary Arts degree. 3 credit hours. (W)

**CHEF 2581 Cooperative Education – Culinary Arts/Chef Training**  
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 5 credit hours. (W)

**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 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 CHEM 1405 within the last 5 years with a grade of "C" or better or one year of high school Chemistry. 4 credit hours.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Please see page 75 for further information.*

**CHEM 1412 General Chemistry II\***

Addresses topics in chemical equilibria, acid-base theory, solubility, electrochemistry, nuclear chemistry, organic chemistry, biochemistry and states of matter. Lab and recitation required. Prerequisite: CHEM 1411 within the last five years with a grade of "C" or better. 4 credit hours.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Please see page 75 for further information.*

**CHEM 2389 Academic Co-op Chemistry**

Integrates on-campus study with practical hands-on work experience in chemistry. In conjunction with class seminars, the student will set specific goals and objectives in the study of chemistry. Contact the Cooperative Work Experience Office. 3 credit hours.

**CHEM 2401 Analytical Chemistry**

Lab intensive course focusing on the principles and problems associated with quantitative chemical analysis. Explores the techniques and precautions required to quantitatively measure a

variety of chemical species utilizing volumetric, gravimetric and spectroscopic methods. Introduces experimental design and the statistical aspects of data treatment. Lab required. Prerequisite: CHEM 1412 within the last five 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.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Please see page 75 for further information.*

**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 five years with a grade of "C" or better. 4 credit hours.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Please see page 75 for further information.*

**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 or consent of Instructor or Department Chair. 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 or consent of Instructor or Department Chair. 3 credit hours.

**CHIN 2312 Intermediate Chinese II**

Continuation of CHIN 2311, emphasizing conversation and reading skills. Prerequisite: CHIN 2311 or consent of Instructor or Department Chair. 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 News Photography I**

Presentation of photographic techniques used by photojournalists in newspapers, magazines, and trade publications including news, feature, sports, editorial portraits, and photo essays. Includes a study of layout design and the freelance market. Lab required. Prerequisite: ARTS 2356. 3 credit hours.

### **COMM 1317 News Photography II**

Instruction in the technical aspects involved in photo journalism. Topics include lighting equipment, techniques of production photography, reproduction principles, illustrative techniques, and advertising. The student will become proficient in the use of still cameras, film, digital and/or video capture, continuous tungsten light sources and electronic flash lighting, to serve conceptualization of photographic illustration. Lab required. Prerequisite: COMM 1316. 3 credit hours.

### **COMM 1319 Photo Editing and Layout**

Extends the students' knowledge of technique and guides them in developing personal outlooks toward specific applications of the photographic process. This includes capture, editing, and layout process. Images and text issues will be considered including editorial shooting assignments in context to magazine design. Lab required. Prerequisites: ARTS 2356 and PHTC 1300. 3 credit hours.

### **COMM 1335 Survey of Radio/Television**

A historical and critical comparison of the first two broadcast media, this course includes discussion of important historical issues that resonate with contemporary media concerns – including intellectual property and patent rights, censorship and freedom of speech, broadcast ethics, public responsibility and emotional contagion. The course also discusses the development and necessary metamorphosis of each medium in response to contemporary events, social change, and the encroachment of new technology, new media and alternative delivery methods. Additionally, COMM 1335 covers critical perspectives in radio and television, production values and aesthetics, and the impact of change in the broadcast marketplace. 3 credit hours.

### **COMM 2300 Media Literacy**

Criticism and analysis of the function, role, and responsibility of the mass media in modern society from the consumer perspective. Includes the ethical problems and issues facing each media format, with the effect of political, economic, and cultural factors on the operation of the media. 3 credit hours.

### **COMM 2301 Intro to Technology and Human Communication**

A survey of emerging interactive communication technologies and how they influence human communication, including interpersonal, group decision-making, and public and private communication contexts. 3 credit hours.

### **COMM 2331 Radio and TV Announcing**

Principles of, and practice in, radio and TV announcing. Includes the study of voice (diction, pronunciation, and delivery) as it relates to mediated contexts; also provides practical experience in news announcing, interviewing, and acting in commercials. 3 credit hours.

### **COMM 2332 Radio/Television News**

The preparation of news and analysis of news styles for the electronic media. 3 credit hours.

### **COMM 2339 Writing for Radio, TV, and Film**

Designed to train the student in all typical forms of broadcast and film writing, including news, commercial copy, critique and commentary, radio theatre, comedy and dramatic teleplay, and screenplay. Course provides both writing and production experiences. 3 credit hours.

### **COMM 2389 Academic Co-op Communication**

For students with interest or major in mass communications, radio, TV, or film. Integrates on-campus study with practical hands-on work experience in communication. In conjunction with class seminars, the student will set specific goals and objectives in the study of communication. Contact the Cooperative Work Experience Office. 3 credit hours.

### **COSC 1300 Computers and Technology**

Study of basic hardware, software, operating systems, and current applications in various segments of society. Current issues such as the effect of computers on society and the history and use of computer are also studied. Required labs introduce students to Windows, the Internet, word processing, spreadsheets, databases, and programming concepts with emphasis on critical thinking/problem solving. Lab required. 3 credit hours.

### **COSC 1315 Fundamentals of Programming**

Course provides an introduction to computer programming concepts using a graphical programming system. Students will focus on programming concepts such as structured design, object oriented design, development, testing, implementation and documentation. Course also includes introduction to language syntax, data types, algorithms, input/output and arrays. Course is recommended for students without prior programming experience. Lab required. Prerequisite: BCIS 1305 or COSC 1300 or consent of Instructor or Department Chair. 3 credit hours.

### **COSC 1337 Programming Fundamentals II – Java**

Review of control structures and data types with emphasis on structured data types. Applies the object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering. Lab required. Prerequisite: COSC 1436 or consent of Department Chair. 3 credit hours.

*Note: Students may take either COSC 1337 or COSC 1437 but not both.*

### **COSC 1436 Programming Fundamentals I – C++**

Introduces the fundamental concepts of structured programming. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. Lab required. Prerequisite/concurrent enrollment: MATH 1314 or consent of Department Chair. 4 credit hours.

### **COSC 1437 Programming Fundamentals II – C++**

Review of control structures and data types with emphasis on structured data types. Applies the object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering. Lab required. Prerequisite: COSC 1436 or consent of Department Chair. 4 credit hours.

*Note: Students may take either COSC 1337 or COSC 1437 but not both.*

### **COSC 2325 Computer Organization and Machine 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. This class is taught with Intel assembly language. Lab required. Prerequisite: COSC 1436 or consent of Department Chair. 3 credit hours.

**COSC 2336 Programming Fundamentals III – C++**

Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Lab required. Prerequisite: COSC 1437 or consent of Department Chair. 3 credit hours.

*Note: Students may take either COSC 2336 or COSC 2436 but not both.*

**COSC 2436 Programming Fundamentals III – Java**

Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Lab required. Prerequisite: COSC 1337 or consent of Department Chair. 4 credit hours.

*Note: Students may take either COSC 2336 or COSC 2436 but not both.*

**COSU 0300 College Success**

*Formerly ACPE 0300*

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. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**CPMT 1411 Introduction to Computer Maintenance**

An introduction to the installation, configuration, and maintenance of a microcomputer system. Emphasis on the evolution of microprocessors and microprocessor bus structures. Lab required. 4 credit hours. (W)

**CPMT 1443 Microcomputer Architecture**

An intermediate level course in computer characteristics and subsystem operations, timing, control circuits, and internal input/output controls. Lab required. Prerequisite: CETT 1325 or consent of Instructor or Program Director. 4 credit hours. (W)

**CPMT 1445 Computer Systems Maintenance**

Examination of the functions of the components within a computer system. Development of skills in the use of test equipment and maintenance aids. Lab required. 4 credit hours. (W)

**CPMT 2302 Home Technology Integration**

Integration and maintenance of various home technology subsystems. Includes home automation, security and surveillance, home networks, video and audio networks, and structured wiring. Lab required. 3 hours. (W)

**CPMT 2337 Microcomputer Interfacing**

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 or Program Director. 3 credit hours. (W)

**CPMT 2371 Advanced Home Technology Integration**

This course is a continuation of Home Technology Integration. Introduce new technologies that can be integrated into home subsystems of the future. Discuss details of these new technologies including but not limited to Radio Frequency Identification, Global Positioning System, and Cellular Interface. Considers integration and maintenance of various home technology subsystems. Includes home automation, security and surveillance,

home networks, video and audio networks, and structured wiring. Lab required. Prerequisite: CPMT 2302 or consent of Instructor or Program Director. 3 credit hours. (W)

**CRIJ 1301 Introduction to Criminal Justice**

A multidisciplinary overview and analysis of the major agencies, personnel, and decision-making points which comprise the criminal justice system. Includes problems and issues confronting legislatures, police, courts, corrections, and the community, as they respond to crime in a free society. Legal precedents guiding the decisions of criminal justice agents are also discussed. 3 credit hours.

**CRIJ 1306 Court Systems and Practices**

Study of procedural regulations that guide the processing of criminal cases through the criminal justice system, with emphasis on the Texas Code of Criminal Procedure and rules of evidence. Includes a discussion of the criminal defendant's due process rights from arrest through confinement as well as issues related to the administration of capital punishment. 3 credit hours.

**CRIJ 1307 Crime in America**

Survey of the nature, location, and impact of crime in America. Includes historical foundations of crime, theoretical explanations of criminality and delinquency, the recording and measurement of crime, descriptions of criminal careers, and an analysis of public policies concerning crime control. 3 credit hours.

**CRIJ 1310 Fundamentals of Criminal Law**

Nature of criminal law, historical and philosophical development of law in society, major definitions and concepts, classifications of crime, elements of crimes and penalties using the Texas statutes as illustrations, criminal responsibility. 3 credit hours.

**CRIJ 1313 Juvenile Justice System**

The juvenile justice system: history, philosophy, and evaluation of the juvenile court; juvenile court practices and procedures; neglect, dependency and delinquency, jurisdiction of the court, the role of the police officer, the correctional officer, and the social welfare worker in the juvenile justice system. 3 credit hours.

**CRIJ 2301 Community Resources in Corrections**

Introduction to the role of the community in corrections, community programs for adults and juveniles, administration of community programs, legal issues, future trends in community treatment. 3 credit hours.

**CRIJ 2313 Correctional Systems and Practices**

Corrections in the criminal justice system, correctional role, institutional operations, alternatives to institutionalization, treatment and rehabilitation, current and future issues. 3 credit hours.

**CRIJ 2314 Criminal Investigation**

Investigative theory, collection and preservation of evidence, sources of information, interview and interrogation, uses of forensic sciences, case and trial preparation. 3 credit hours.

**CRIJ 2323 Legal Aspects of Law Enforcement**

Police authority; responsibilities; constitutional restraints; laws of arrest, search, and seizure; and police liability. 3 credit hours.

**CRIJ 2328 Police Systems and Practices**

The police profession, organization of law enforcement systems, the police role, police discretion, ethics, police-community interaction, current and future issues. 3 credit hours.



**DANC 1101 Dance Improvisation**

Exploration of movement and visual design leading to choreographic studies. Focus on developing creative potential, personal movement style and expressiveness. Emphasis on experiencing new kinds of movement, making connections among varied movement ideas, seeking new relationships and learning to visualize ideas in dance. 1 credit hour.

**DANC 1110 Tap Technique I**

Performance of basic rhythms and techniques fundamental to beginning tap dance. Focus on body placement, terminology, and tap combinations. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 1111 Tap Technique II**

Further study of tap technique with focus on increased vocabulary and more complex rhythms and combinations. Emphasis on skill development, rhythmic accuracy, analysis and composition. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. Prerequisite: DANC 1110 or consent of Instructor. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 1141 Ballet Technique I**

Beginning ballet; development of elementary ballet technique and knowledge of terminology using barre, center work, and beginning movement combinations; emphasis on alignment. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 1142 Ballet Technique II**

Advanced jazz dance; continuation of DANC 1141 with emphasis on complex rhythmic structures and advanced jazz technique. Includes Intermediate ballet; further study of ballet technique with focus on more complex movement combinations of petit allegro and grand allegro, tours and adagio work. Attention of performance qualities. Students will be evaluated the first

two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. Prerequisite: DANC 1141 or consent of Instructor. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 1145 Modern Dance Technique I**

Beginning modern dance; introduction to the art and discipline of modern dance through floor and center work, basic rhythm, and movement combinations. Attention to the analysis of time, space and dynamics as they apply to dance. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 1146 Modern Dance Technique II**

Intermediate modern dance; further study in the art and discipline of modern dance. Includes technical development of the body for greater range of movement. Attention to focus, spatial clarity, energy dynamics, musicality, and performing qualities. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. Prerequisite: DANC 1145 or consent of Instructor. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 1147 Jazz Dance Technique I**

Beginning jazz dance; practice in basic jazz movements including isolations, elementary jumps, and turns. Focus on the variety of jazz styles including: Funk, Lyrical, Musical Theatre, and Hip Hop/Street Jazz. Includes participation in choreographed combinations and development of performing qualities. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*



**DANC 1148 Jazz Dance Technique II**

Intermediate jazz dance; further development of jazz dance style. Focus on movement dynamics, musicality and modes of expression. Attention to more complex movement combinations and composition development. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. Prerequisite: DANC 1147 or consent of Instructor. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 1151 Dance Performance I**

Study of dance performance through the application of artistic process skills. In-depth experience in rehearsal and concert production process. Gain experience in working with a choreographer and performing in a variety of concert settings. Prerequisite: Audition. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 1152 Dance Performance II**

Continuation of DANC 1151. Prerequisite: Audition. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 1201 Dance Composition**

An exploration of choreographic tools with emphasis on design, dynamics, movement forms and stage space. Includes idea forming and shaping, structure, abstraction, phrasing and style. Emphasis on creative problem-solving skills, experiencing the artistic process skills as a choreographer and critic, utilizing choreographic devices, and transforming ideas into movement. Prerequisite: DANC 1101. 2 credit hours.

**DANC 1212 Dance Practicum I**

Practicum in dance with emphasis on choreography. Application of compositional skills and idea forming and shaping. Focus on choreographic designs and the rehearsal process. Prerequisite: Consent of Instructor. 2 credit hours.

*Note: Students may take DANC 1212, DANC 1213, DANC 2210, DANC 2211, DANC 2212, and DANC 2213 for a combined total of no more than 8 credit hours.*

**DANC 1213 Dance Practicum II**

Continuation of DANC 1212. Practicum in dance with emphasis on choreography. Prerequisites: DANC 1212 and consent of Instructor. 2 credit hours.

*Note: Students may take DANC 1212, DANC 1213, DANC 2210, DANC 2211, DANC 2212, and DANC 2213 for a combined total of no more than 8 credit hours.*

**DANC 2141 Ballet Technique III**

Intermediate/advanced ballet; a continuation of DANC 1142 with greater emphasis on expressive performance of classical ballet. Development of greater physical strength, stamina, and flexibility. Emphasis on experiencing and understanding the classical principles of ballet technique which include form, symmetry, balance, order, line, discipline, and control. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. Prerequisite: DANC 1142 or consent of Instructor. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 2142 Ballet Technique IV**

Advanced ballet; a continuation of DANC 2141, introducing more complex elements of petit allegro, grand allegro, classical and contemporary ballet technique. Continued focus on developing and maintaining proper body alignment, rhythmic ability, and performance of ballet variations. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. Prerequisite: DANC 2141 or consent of Instructor. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 2145 Modern Dance Technique III**

Intermediate/advanced modern dance, continued development of movement vocabulary with emphasis on processing increasingly complex material. Attention to focus, spatial clarity, energy dynamics, musicality and performing qualities. Continued focus on developing and maintaining proper body alignment, rhythmic ability, and performance of modern combinations. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. Prerequisite: DANC 1146 or consent of Instructor. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 2146 Modern Dance Technique IV**

Advanced modern dance; continuation of DANC 2145, introducing more complex elements of classical and contemporary modern dance. Attention to improvisation, partnering and performing qualities. Continued focus on the integrated development of technique, perception, artistic expression, and aesthetic involvement. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. Prerequisite: DANC 2145 or consent of Instructor. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 2147 Jazz Dance Technique III**

Intermediate/advanced jazz dance; further practice in jazz movements through advanced level jumps, turns, leaps, kicks, as well as the combination of these elements. Participation in choreographed routines utilizing complex rhythmic structures and movements in a variety of jazz styles. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. Prerequisite: DANC 1148 or consent of Instructor. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 2148 Jazz Dance Technique IV**

Practice in jazz choreography. Students will be evaluated the first two weeks of the semester to insure proper level placement. Students may be asked to move to a more appropriate technique level during the evaluation period. Prerequisite: DANC 2147 or consent of Instructor. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 2151 Dance Performance III**

Continuation of DANC 1152. Prerequisite: Audition. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 2152 Dance Performance IV**

Continuation of DANC 2151. Prerequisite: Audition. 1 credit hour.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152, and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 2210 Projects in Dance Performance and Repertory I**

A study with different guest artists per semester focusing on choreography and repertory material. The course will explore individual creative processes with emphasis on movement style, dynamics, composition, rehearsal processes and performance. Includes experiencing a variety of movement styles and material each semester. Lab required. Prerequisites: Consent of Dance Chair, and Dance Audition required. 2 credit hours.

*Note: Students may take DANC 1212, DANC 1213, DANC 2210, DANC 2211, DANC 2212, and DANC 2213 for a combined total of no more than 8 credit hours.*

**DANC 2211 Projects in Dance Performance and Repertory II**

A continuation of DANC 2210. A study with different guest artists per semester focusing on choreography and repertory material. The course will explore individual creative processes with emphasis on movement style, dynamics, composition, rehearsal processes and performance. Includes experiencing a variety of movement styles and material each semester. Lab required. Prerequisites: DANC 2210 or consent of Dance Chair, and Dance Audition required. 2 credit hours.

*Note: Students may take DANC 1212, DANC 1213, DANC 2210, DANC 2211, DANC 2212, and DANC 2213 for a combined total of no more than 8 credit hours.*

**DANC 2212 Dance Practicum III**

Practicum in dance with emphasis on choreography and the role of the choreographer in the dance making process. Focus on choreographic designs. Prerequisites: DANC 1213 and consent of Instructor. 2 credit hours.

*Note: Students may take DANC 1212, DANC 1213, DANC 2210, DANC 2211, DANC 2212, and DANC 2213 for a combined total of no more than 8 credit hours.*

**DANC 2213 Dance Practicum IV**

Continuation of DANC 2212. Prerequisites: DANC 2212 and consent of Instructor. 2 credit hours.

*Note: Students may take DANC 1212, DANC 1213, DANC 2210, DANC 2211, DANC 2212, and DANC 2213 for a combined total of no more than 8 credit hours.*

**DANC 2301 Topics in Dance Technique**

A rotating topics course with instruction, participation and performance in various dance styles. The course will explore specific technique, vocabulary, creative processes, dynamics, and musicality of determined dance genre and style. Includes experiencing a variety of movement styles and material each semester. Lab required. Prerequisite: Audition or consent of Instructor. 3 credit hours.

*Note: Students may take DANC 1110, DANC 1111, DANC 1141, DANC 1142, DANC 1145, DANC 1146, DANC 1147, DANC 1148, DANC 1151, DANC 1152, DANC 2141, DANC 2142, DANC 2145, DANC 2146, DANC 2147, DANC 2148, DANC 2151, DANC 2152 and DANC 2301 for a combined total of no more than 18 credit hours.*

**DANC 2303 Dance Appreciation**

A course in the understanding of dance as an art form. Emphasis placed on the aesthetics of dance as a performing art. Students will discuss primitive, classical and contemporary dance and its interrelationship with cultural developments and other art forms. 3 credit hours.

**DANC 2389 Academic Co-op Dance**

Integrates on-campus study with practical hands-on work experience in dance. In conjunction with class seminars, the student will set specific goals and objectives in the study of dance. Contact the Cooperative Work Experience Office. 3 credit hours.

**DFTG 1305 Technical Drafting**

Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**DFTG 1309 Basic Computer-Aided Drafting**

An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; and plot/print to scale. Lab required. 3 credit hours. (W)

**DFTG 1317 Architectural Drafting – Residential**

Architectural drafting procedures, practices, and symbols. Preparation of detailed working drawings for residential structures. Emphasis on light frame construction methods. Lab required. Prerequisites: DFTG 1305 and DFTG 2319. 3 credit hours. (W)

**DFTG 1333 Mechanical Drafting**

Detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, pictorial drawings including bill of materials. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**DFTG 1345 Parametric Modeling and Design**

Parametric-based design software for mechanical assembly design and drafting. Uses parametric modeling techniques creating and rendering mechanical assemblies. Development of orthographic drawings, auxiliary views, and details from 3-dimensional models. Lab required. Prerequisite: DFTG 2319. 3 credit hours (W)

**DFTG 1358 Electrical/Electronics Drafting**

Electrical and electronic drawings stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Lab required. 3 credit hours. (W)

**DFTG 1371 Mechanical Drafting – Fundamentals of Sheetmetal Design**

Teaches the skills required in designing sheetmetal parts and assemblies, troubleshooting and creating production drawings. All functions needed to create sheetmetal parts, drawings and assemblies are taught in this course. The lesson modules are structured to maximize hands-on interaction with the Pro/Sheetmetal module in Pro/Engineer. Lab required. Prerequisite: DFTG 1345. 3 credit hours. (W)

**DFTG 1373 3-D Studio Max**

3-D Studio Max software will be used to teach modeling, material application, lighting, and rendering of 3-dimensional spaces. Some animation will be included. Basic commands and concepts will be covered which would apply to various fields. Lab required. 3 credit hours (W)

**DFTG 1380 Cooperative Education – Drafting and Design Technology/Technician, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**DFTG 2300 Intermediate Architectural Drafting – Residential**

Continued application of principles and practices used in residential construction. Lab required. Prerequisite: DFTG 1317. 3 credit hours. (W)

**DFTG 2305 Printed Circuit Board Design**

Course includes single-sided and double-sided printed circuit board design, emphasizing the drawings, standards, and processes required to lay out printed circuit board and manufacturing documentation. Lab required. Prerequisite: DFTG 1358. 3 credit hours. (W)

**DFTG 2312 Technical Illustration and Presentation**

Pictorial drawing including isometrics, obliques, perspectives, charts, and graphs. Emphasis on rendering and using different media. Lab required. Prerequisite: DFTG 2319. 3 credit hours. (W)

**DFTG 2317 Descriptive Geometry**

Graphical solutions to problems involving points, lines, and planes in space. Lab required. Prerequisite: DFTG 2319. 3 credit hours. (W)

**DFTG 2319 Intermediate Computer-Aided Drafting**

A continuation of practices and techniques used in basic computer-aided drafting emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, interfacing 2d and/or 3d environments and extracting data. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**DFTG 2321 Topographical Drafting**

Plotting of surveyors field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**DFTG 2328 Architectural Drafting – Commercial**

Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Lab required. Prerequisites: DFTG 1305 and DFTG 2319. 3 credit hours. (W)

**DFTG 2332 Advanced Computer-Aided Drafting**

Use of advanced techniques, including the use of a customized system and the principles of data manipulation for drawing production enhancement. Presentation of advanced drawing applications, such as three-dimensional solids modeling and linking graphic entities to external non-graphic data. Lab required. Prerequisite: DFTG 2319. 3 credit hours. (W)



### **DFTG 2335 Advanced Technologies in Mechanical Design and Drafting**

Use parametric-based software (Pro/Engineer) for mechanical assembly design and drafting for advanced modeling and analysis. In this course the student will learn how to create and fully detail a multi-view drawing and create reports to contain additional design documentation details. Drawings for both parts and assemblies will be addressed, with emphasis on view management and design details. Lab required. Prerequisite: DFTG 1345 or consent of Instructor or Program Director. 3 hours. (W)

### **DFTG 2336 Computer-Aided Drafting Programming**

Use of programming language to enhance CAD software. Lab required. Prerequisite: DFTG 2319. 3 credit hours. (W)

### **DFTG 2350 Geometric Dimensioning and Tolerancing**

Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

### **DFTG 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 2305. 3 credit hours. (W)

### **DFTG 2371 Integrated Circuit Design Verification, Cell Libraries, and Mixed Signal Layout**

*Formerly DFTG 1394*

A study of the principles of design of Integrated Circuit component library data bases, mixed signal layout guidelines, understanding component specifications, relationship of component libraries to integrated circuit layouts, and methods of verifying accuracy of database design. Prerequisites: CETT 1325, CETT 1403, DFTG 2413, and DFTG 2433.

### **DFTG 2381 Cooperative Education – Drafting and Design Technology/Technician, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **DFTG 2413 Basic Integrated Circuit Design**

The study of layout and design of integrated circuits. A labor-oriented course which concentrates on the layout design of Complementary Metal Oxide Semiconductor (CMOS) Digital Integrated Circuits. The course will cover CMOS circuits, basic digital layout building blocks, Metal Oxide Semiconductor (MOS) transistor theory, CMOS process technology, stick diagrams, layout techniques, and verification. Prerequisite: DFTG 1358. 4 credit hours. (W)

### **DFTG 2433 Advanced Integrated Circuit Design**

Implementation of advanced techniques in the design of complex integrated circuits; projects require students to use multiple sets of design rules meeting industrial standards of current technologies. A lab-oriented course which concentrates on the layout design of Complementary Metal Oxide Semiconductor

(CMOS) Analog Integrated Circuits. The course will cover CMOS Analog circuits, basic Analog layout building blocks, Bipolar transistor theory, CMOS process technology, stick diagrams, Analog layout techniques, and verification. Lab required. Prerequisite: DFTG 2413. 4 credit hours. (W)

### **DHYG 1123 Dental Hygiene Practice**

Practice settings for the dental hygienist including office management, employment considerations, resume preparation, and job interviewing. Emphasis on the laws governing the practice of dentistry and dental hygiene, moral standards, and the ethical standards established by the dental hygiene profession. Prerequisites: DHYG 1227 and DHYG 1261. 1 credit hour. (W)

### **DHYG 1207 General and Dental Nutrition**

General nutrition and nutritional biochemistry with emphasis on the effects of nutrition and dental health, diet, and application of counseling strategies. Prerequisite: DHYG 1331. 2 credit hours. (W)

### **DHYG 1215 Community Dentistry**

The principles and concepts of community public health and dental health education emphasizing community assessment, educational planning, implementation, and evaluation, including methods and materials used in teaching dental health education in various community settings. Includes rotation schedule into the community (4 hours weekly). Prerequisites: DHYG 1227, DHYG 1261, and ENGL 1301. 2 credit hours (W)

### **DHYG 1227 Preventive Dental Hygiene Care**

The dental hygienist in the dental health care system emphasizing the basic concepts of disease prevention and health promotion. Communication and behavior modification skills are presented to facilitate the role of the dental hygienist as an educator. Prerequisites: BIOL 2421, DHYG 1301, and DHYG 1331. 2 credit hours. (W)

### **DHYG 1235 Pharmacology for the Dental Hygienist**

Classes of drugs and their uses, actions, interactions, side effects, contraindications, and systemic and oral manifestations with emphasis on dental applications. Prerequisite: DHYG 1331. 2 credit hours. (W)

### **DHYG 1261 Clinical I – Dental Hygienist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: BIOL 2421, DHYG 1301, and DHYG 1331. 2 credit hours. (W)

### **DHYG 1301 Orofacial Anatomy, Histology and Embryology**

The histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification. Lab included. Prerequisites: BIOL 2401, BIOL 2402, and CHEM 1405 or CHEM 1411. 3 credit hours. (W)

### **DHYG 1304 Dental Radiology**

Radiation physics, biology, hygiene, and safety theories with an emphasis on the fundamentals of oral radiographic techniques and interpretation of radiographs. Includes exposure of intra-oral radiographs, quality assurance, radiographic interpretation, patient selection criteria, and other ancillary radiographic techniques. Lab included. Corequisite: DHYG 1301, or consent of Program Director. 3 credit hours. (W)



**DHYG 1311 Periodontology**

Normal and diseased periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics in a contemporary practice setting. Prerequisites: DHYG 1227 and DHYG 1261. 3 credit hours. (W)

**DHYG 1319 Dental Materials**

Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry. Lab required. Prerequisites: CHEM 1405 or CHEM 1411, and DHYG 1331. 3 credit hours. (W)

**DHYG 1331 Preclinical Dental Hygiene**

Foundational knowledge for performing clinical skills on patients with emphasis on principles, procedures, and professionalism for performing comprehensive oral prophylaxis. Clinical laboratory included (6 hours week). Prerequisites: BIOL 2401, BIOL 2402, and CHEM 1405 or CHEM 1411. 3 credit hours. (W)

**DHYG 1339 General and Oral Pathology**

Disturbances in human body development, diseases of the body, and disease prevention measures with emphasis on the oral cavity and associated structures. Prerequisites: DHYG 1227 and DHYG 1261. 3 credit hours. (W)

**DHYG 2201 Contemporary Dental Hygiene Care I**

Dental hygiene care for the medically or dentally compromised patient with emphasis on supplemental instrumentation techniques. Prerequisites: DHYG 1227 and DHYG 1261. Corequisites: DHYG 1123 and DHYG 2361, or consent of Program Director. 2 credit hours. (W)

**DHYG 2231 Contemporary Dental Hygiene Care II**

Dental hygiene care for the medically or dentally compromised patient with emphasis on advanced instrumentation techniques. Prerequisites: DHYG 2201 and DHYG 2361. 2 credit hours. (W)

**DHYG 2275 Community Dental Health Applications**

This course provides an opportunity for students to apply the main concepts of DHYG 1215 by individually developing community educational programs that demonstrate the promotion of health and prevention of disease for a variety of populations. Students learn the variances in the application of health education programs. This course also instructs the student on the use of a variety of media sources and the principles of effective educational presentations. Lab required. Prerequisites: DHYG 1215, DHYG 1227, and DHYG 1261. 2 credit hours. (W)

**DHYG 2361 Clinical II – Dental Hygienist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. A method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. Onsite clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topic and learning outcomes vary. Prerequisites: DHYG 1227 and DHYG 1261. Corequisites: DHYG 1123 and DHYG 2201, or consent of Program Director. 3 credit hours. (W)

**DHYG 2363 Clinical III – Dental Hygienist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: DHYG 1123, DHYG 2201, and DHYG 2361. Corequisite: DHYG 2231. 3 credit hours. (W)

**DHYG 2375 Strategies of Oral Medicine**

Case presentation that emphasizes the integration of dental hygiene sciences, critical thinking and the application of evidence based research on an advanced level. Presentations by students include patient case studies and literature reviews for class discussion. Patient case studies integrate knowledge from the areas of research, pharmacology, periodontology, pathology, emergency care, ethics, nutrition, dental radiology and clinical courses that demonstrate the highest quality of care for each patient. Prerequisites: DHYG 1235, DHYG 2201, and DHYG 2361. 3 credit hours. (W)

**DRAM 1120 Theatre Practicum – Performance**

Practicum in theatre with emphasis on performance techniques and procedures, including a major performance role in a college production. Flexible enrollment. Prerequisite: Consent of Instructor. 1 credit hour.

*Note: Students may take DRAM 1120, DRAM 1121, and DRAM 2120 for a combined total of no more than 6 credits hours.*

**DRAM 1121 Theatre Practicum – Technical**

Practicum in theatre with emphasis on theatre techniques and procedures, including major technical responsibilities in the production of a college play. Flexible enrollment. Prerequisite: Consent of Instructor. 1 credit hour.

*Note: Students may take DRAM 1120, DRAM 1121, and DRAM 2120 for a combined total of no more than 6 credits hours.*

**DRAM 1161 Musical Theatre Workshop I**

Study and performance of works in the musical theatre repertoire. Prerequisite: Consent of Instructor. 1 credit hour.

*Note: Students may take either DRAM 1161 or MUSI 1159 but not both.*

**DRAM 1162 Musical Theatre Workshop II**

A continuation of Music Theatre Workshop I. Developing advanced techniques in presenting works from the Musical Theatre repertoire. Prerequisite: DRAM 1161 or MUSI 1159. 1 credit hour.

*Note: Students may take either DRAM 1162 or MUSI 2159 but not both.*

**DRAM 1310 Introduction to the Theatre**

Various aspects of theatre are surveyed. Emphasis on types of plays, directing, acting, theatre history, and technical production. Lab required. 3 credit hours.

**DRAM 1322 Stage Movement**

An introductory study of the concepts of preparing and performing a role on stage with specific emphasis on the actor's physicality and stage movement. Lab required. 3 credit hours.

**DRAM 1323 Basic Theatre Practice**

An interactive practicum in theatre. Diverse topics of study will be offered on a rotating basis. Introduction to Directing has emphasis on directing technique and procedure, with experience gained through practical study. Introduction to Directing will be offered in the fall and/or spring semester. New York Field Studies, a course which introduces students first-hand to the performance and theory of the New York professional Theatre, will be offered during Summer II. Other topics of study will be offered periodically. This course may not be repeated for credit. Lab required. 3 credit hours.

**DRAM 1330 Stagecraft I**

Study and application of the visual aesthetics of design that may include the physical theatre, scenery construction and painting, properties, lighting, costumes, makeup, and backstage organizations. Lab required. 3 credit hours.

**DRAM 1341 Theatrical Makeup**

Study and application of visual aesthetics in theatrical makeup, including fundamentals of stage makeup, character makeup, corrective techniques, beards, mustaches, and three-dimensional makeup. Lab required. 3 credit hours.

**DRAM 1342 Introduction to Costuming**

Introduction to constructing costumes for theatrical productions. Students will gain an appreciation of the art of costuming and a sense of fashion history, and will understand how the costume fits into the total concept and production of the play. Lab required. 3 credit hours.

**DRAM 1351 Acting I**

Introduction to the art of acting including body control, voice, pantomime, interpretation, characterization, and stage movement. Lab required. 3 credit hours.

**DRAM 1352 Acting II**

Advanced acting, with emphasis on script analysis, complex characterization, ensemble acting and stylized acting in period plays. Lab required. Prerequisite: DRAM 1351 or consent of Instructor. 3 credit hours.

**DRAM 1370 Stage Management**

Examines the art of stage managing a play production, including rehearsal preparations, performance responsibilities, and production process documentation. Includes intensive examination of the fundamental duty of a successful stage manager, coordinating and facilitating each of the participants in the theatrical process, to include performers, directors, designers, and technicians. Lab required. 3 credit hours.

**DRAM 2170 Demonstration Lab**

*Formerly DRAM 2120*

Scenes, techniques and problems studied in various theatre classes are demonstrated to show contrast and different styles. Guest lectures, demonstration and projects in Acting and Directing may also be presented. Preparation and performance in the demonstration laboratory may be related to specific productions. Required for all Theatre majors. Lab required. 1 credit hour.

**DRAM 2331 Stagecraft II**

The advanced study and application of the visual aesthetics of design; which may include the physical theatre, scenery construction and painting, properties, sound and lighting. Lab required. 3 credit hours.

**DRAM 2336 Voice and Diction**

Intensive work in the improvement of voice through exercises to develop resonance, range, flexibility, intensity, and control of voice. 3 credit hours.

**DRAM 2351 Acting III: Improvisation**

General introduction to the techniques, practice and performance of improvisational drama. Body control, voice, pantomime, characterization and stage movement are all included. Lab required. 3 credit hours.

**DRAM 2352 Acting IV: Acting for Film and Television**

Intensive examination of skills and techniques necessary for successful performances in film and television. Lab required. Prerequisite: DRAM 1351 or consent of Instructor. 3 credit hours.

**DRAM 2361 History of the Theatre I**

An historical investigation of the theatre and dramatic literature from ancient Greece through 1800. 3 credit hours.

*Note: Students may take DRAM 2361, DRAM 2362 and DRAM 2363 for a combined total of no more than 6 credit hours.*

**DRAM 2362 History of the Theatre II**

An historical investigation of the theatre and dramatic literature from 1800 to the present. 3 credit hours.

*Note: Students may take DRAM 2361, DRAM 2362, and DRAM 2363 for a combined total of no more than 6 credit hours.*

**DRAM 2363 History of Musical Theatre**

Study of the forms and structures of the American musical theatre from its earliest forms through the present day. Lab required. 3 credit hours.

*Note: Students may take DRAM 2361, DRAM 2362, and DRAM 2363 for combined total of no more than 6 credit hours.*

**DRAM 2366 History of Film Making I**

Investigates the history of motion pictures and its effect on our society as well as its contributions to our culture. Covers the period of 1890-1949. Emphasis on the cinema as an art form. Lab required. 3 credit hours.

**DRAM 2367 History of Film Making II**

Investigates the history of motion pictures and its effect on our society as well as its contributions to our culture. Covers the period of 1950-present. Emphasis on the cinema as an art form. Lab required. 3 credit hours.

**DRAM 2370 Theatre Outreach**

An in-depth study of the concepts of dramatic playwriting production and performance, combined with an intensive study of current issues in sociology. Students will research, write and produce plays which highlight and depict the social concerns of contemporary youths. Lab required. Prerequisite: Consent of Instructor. 3 credit hours.

**DRAM 2372 Script Analysis**

An investigation of dramatic structure from the points of view of the director, actor, playwright and designer. Emphasis is on theory and criticism of theatre arts. Through the study of selected plays from various styles and periods in theatre history, students will learn techniques for analyzing, interpreting and conceptualizing play structure in a manner vital for all theatre artists. Selections will vary each semester. Lab required. 3 credit hours.

**DRAM 2373 Practical Costuming**

Introduction to fundamentals of costume studio management, theatrical sewing techniques, theatrical supplies and fabrics, painting and dyeing, costume properties and accessories, design preparation methods, personnel and the process of developing costumes for theatrical productions. Lab required. Prerequisite: Consent of Instructor. 3 credit hours.

**DRAM 2375 Fundamentals of Stage Lighting**

An introductory course that explores the use of light as an artistic medium in theatrical productions. This course acquaints students with the equipment, design elements, and conceptual processes employed in lighting design and implementation. Students will gain practical experience in laboratory and production settings. Lab required. 3 credit hours.

**DRAM 2376 Stage Combat and Circus Skills**

Development of advanced specialty skills and techniques of acting. The student will focus on the awareness and development of the mechanics of the body as a tool for the actor; with emphasis on stage fighting, circus skills, stage stunt work and on complex stage combat techniques and choreography. The course includes an instructional component, where the student will teach and/or direct staged fight scenes. Lab required. Prerequisite: Consent of Instructor. 3 credit hours.

**DRAM 2377 Shakespeare: Shakespeare on Stage (Acting Shakespeare)**

Students will experience language as physical, exploring through exercises and scene work how to employ the meaning, music, and power of the language in the creation of living characters onstage, to engage the audience in the most dynamic Shakespeare possible. Lab required. 3 credit hours.

**DRAM 2389 Academic Co-op Drama**

Integrates on campus study with practical hands-on work experience in drama. In conjunction with class seminars, the student will set specific goals and objectives in the study of drama. Contact the Cooperative Work Experience Office. 3 credit hours.

**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. 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. 3 credit hours.

**ECON 2389 Academic Co-op Economics**

Integrates on-campus study with practical hands-on work experience in economics. In conjunction with class seminars,

the student will set specific goals and objectives in the study of economics. Contact the Cooperative Work Experience Office. 3 credit hours.

**EDUC 1301 Introduction to the Teaching Profession**

An introduction and analysis of the culture of schooling and classrooms from the perspective of the teacher, the student and society. Includes information on degree requirements and testing for certification in Texas. Sixteen hours of field-based work in a PK-12 school is required. Lab required. 3 credit hours.

**EDUC 2301 Introduction to Special Populations**

An introduction to the special student populations found in PK-12 schools. The course will provide an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity and equity with an emphasis on factors that facilitate learning. Sixteen hours of field-based work with special populations in a PK-12 school is required. Lab required. Prerequisite: EDUC 1301. 3 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. (W)

**EECT 1302 Introduction to Videoconferencing**

An introduction to the videoconferencing protocol. Topics include imaging, display, and control equipment. Lab required. 3 credit hours. (W)

**EECT 1303 Introduction to Telecommunications**

An overview of the telecommunications industry. Topics include the history of the telecommunications industry, terminology, rules and regulations, and industry standards and protocols. Lab required. 3 credit hours. (W)

**EECT 1340 Telecommunications Transmission Media**

Fundamentals of telecommunications media, including installation, maintenance, and troubleshooting. Topics address media characteristics and connectorization. Lab required. 3 credit hours. (W)

**EECT 1344 Telecommunications Broadband Systems**

A survey of telecommunications broadband transmissions systems including protocols, testing, applications, and safety practices. This course may be repeated for a total of 12 credit hours if the areas of emphasis vary. 3 credit hours. (W)

**EECT 1371 Voice-over-Internet Protocol**

Voice over IP (VoIP) integrates voice and data transmission and is quickly becoming an important factor in network communications. It promises lower operational costs, greater flexibility, and a variety of enhanced applications. VoIP Fundamentals provides an introduction to the basic concepts of this new technology. This course will contain an overview of basic telephony fundamentals, an introduction to packet voice technologies, and an overview of the Internet Protocol (IP) along with other protocols and standards that define VoIP networks. The class will conduct case studies to support the curriculum and familiarize the student with VoIP system operations. Lab required. 3 credit hours. (W)



**EECT 1380 Cooperative Education – Electrical, Electronic and Communications Engineering Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**EECT 1381 Cooperative Education – Electrical, Electronic and Communications Engineering Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**EECT 1407 Convergence Technologies**

A study of telecommunications convergence technologies including telephone, LAN, WAN, wireless, voice, video, and internet protocol. Introduces the student to Voice, Video and Integrated data (VVID) over IP networks to provide seamless and secure communications solutions to business and home technology needs. This includes discussions on interoperability methods and techniques to integrate disparate systems and technologies, and includes people skills development. It prepares individuals to pass the Computing Technology Industry Association (CompTIA) Convergence+ certification exam. Lab required. 4 credit hours. (W)

**EECT 1444 Telecommunications Broadband Systems**

A survey of telecommunications broadband transmissions systems including protocols, testing, applications and safety practices. Lab required. 4 credit hours. (W)

**EECT 1448 Digital Signal Processing (DSP)**

A study of the architecture and applications of digital signal processors (DSP) including mathematical signal processing techniques. Lab required. 4 credit hours. (W)

**EECT 2330 Telecommunications Switching**

The operation of telecommunications switching equipment and related software. Topics include installation, testing, maintenance, and troubleshooting. Lab required. 3 credit hours. (W)

**EECT 2332 Telecommunications Signaling**

The study of signaling schemes in telecommunications. Topics include circuits and systems necessary to implement signaling protocols, conversions, and formats. Lab required. 3 credit hours. (W)

**EECT 2337 Wireless Telephony Systems**

Principles of wireless/cellular telephony systems to include call processing, hand-off, site analysis, antenna radiation patterns, commonly used test/maintenance equipment, and access protocol. This course may be repeated if the areas of emphasis vary. 3 credit hours. (W)

**EECT 2340 Telecommunications Central Office Equipment**

An examination of the theory, operation, and maintenance of central office telecommunications equipment. Lab required. 3 credit hours. (W)

**EECT 2342 Telecommunications Private Branch Exchange PBX**

An examination of the theory, operation, and maintenance of PBX telecommunications equipment. Lab required. 3 credit hours. (W)

**EECT 2373 Case Study III: Advanced VoIP Systems Design**

This course is complementary to the VoIP and Advanced VoIP courses integrating, from an applications perspective, voice, video and integrated data over an IP network. Case Study III provides an applications treatment of the fundamental concepts of this growing technology. From an applications and hands-on perspective this course contains an in-depth analysis of VoIP in the enterprise and legacy network including SOHO (Small Office Home Office). Network security considerations relating to VoIP applications are emphasized. The class will conduct case studies to support the curriculum and familiarize the student with VoIP system operations, protocols, procedures, and applications. Lab required. Prerequisite: ITNW 2350 or consent of Instructor or Program Director. 3 credit hours. (W)

**EECT 2374 Advanced Wireless**

In-depth coverage of enterprise WLAN security including implementing VLAN and 802.1x type security. Design WLAN networking using site survey techniques. In-depth study of Emerging technologies including: Ultra-Wideband Wireless, VoIP, Mobile Wireless technologies that define VoIP networks. The class will conduct case studies to support the curriculum and familiarize the student with VoIP system operations. Lab required. Prerequisite: EECT 2437 or consent of Instructor or Program Director. 3 credit hours. (W)

**EECT 2375 Advanced VoIP**

This course is a continuation of Voice-over-IP (VoIP) integrating voice, video and integrated data over an IP network. VoIP provides an advanced treatment of the fundamental concepts of this growing technology. This course will contain an in-depth analysis of VoIP in the enterprise and legacy network including application in the SOHO (Small Office Home Office) environment. The class also emphasizes network security considerations relating to VoIP applications. The class will conduct case studies to support the curriculum and familiarize the student with VoIP system operations. Lab required. Prerequisite: EECT 1371 or consent of Instructor or Program Director. 3 credit hours. (W)

**EECT 2433 Telephone Systems**

A study of installation and maintenance systems including telephone set, public switched networks, local exchanges, networks, two and four-wire systems, tip and ringing requirements, and digital transmission techniques. Lab required. 4 credit hours. (W)

**EECT 2435 Telecommunications**

A study of modern telecommunications systems incorporating microwave, satellite, optical, and wire/cable-based communications systems. Instruction in installation, testing, and maintenance of communications systems components. Lab required. Prerequisite: EECT 2439 or consent of Instructor or Program Director. 4 credit hours. (W)

**EECT 2437 Wireless Telephony Systems**

Principles of wireless/cellular telephony systems to include call processing, hand-off, site analysis, antenna radiation patterns, commonly used test/maintenance equipment, and access protocol. Lab required. 4 credit hours. (W)



**EECT 2439 Communications Circuits**

A study of communications systems with emphasis on amplitude modulation, frequency modulation, phase modulation, and digital pulse modulation. Discussion of several types of modulators, demodulators, receivers, transmitters, and transceivers. Lab required. Prerequisite: CETT 1409. 4 credit hours. (W)

**ELMT 1301 Programmable Logic Controllers**

An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment. Lab required. 3 credit hours. (W)

**ELMT 1405 Basic Fluid Power**

Basic fluid power course including pneumatics, vacuum and hydraulics; symbols, theory, components, and basic electrical controls. Lab required. 4 credit hours. (W)

**ELMT 2435 Certified Electronics Technician Training**

Review of electronics concepts and principles in preparation for sitting for a certification examination administered by an outside organization or agency. Lab required. 4 credit hours. (W)

**ELMT 2437 Electronic Troubleshooting, Service and Repair**

In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedure, repair checkout, and preventative maintenance. Emphasis on safety and proper use of test equipment. May be offered as a capstone course. Lab required. 4 credit hours. (W)

**EMSP 1160 Clinical – Emergency Medical Technician – Basic**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Consent of Program Director. 1 credit hour. (W)

**EMSP 1161 Clinical – Emergency Medical Technician – Advanced I**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Consent of Program Director. 1 credit hour. (W)

**EMSP 1162 Clinical – Emergency Medical Technician – Advanced II**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Consent of Program Director. 1 credit hour. (W)

**EMSP 1205 Emergency Care Attendant**

First responder course in emergency medical care. Emphasis on requirements of national and state accrediting agencies. Prerequisite: Consent of Program Director. 2 credit hours. (W)

**EMSP 1338 Introduction to Advanced Practice**

An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Prerequisite: MDCA 1409 or consent of Program Director. 3 credit hours. (W)

**EMSP 1355 Trauma Management**

A detailed study of the knowledge and skills in the assessment and management of patients with traumatic injuries. 3 credit hours. (W)

**EMSP 1356 Patient Assessment and Airway Management**

A detailed study of the knowledge and skills required to perform patient assessment and airway management. Prerequisite: Consent of Program Director. 3 credit hours. (W)

**EMSP 1501 Emergency Medical Technician – Basic**

Introduction to the level of Emergency Medical Technician (EMT) – Basic. Includes all the skills necessary to provide emergency medical care at the basic life support level with an ambulance service of other specialized services. Lab required. Prerequisite: Consent of Program Director. Corequisite: EMSP 1160. 5 credit hours. (W)

**EMSP 2135 Advanced Cardiac Life Support**

Skill development for professional personnel practicing in critical care units, emergency departments, and paramedic ambulances. Establishes a system of protocols for management of the patient experiencing cardiac difficulties. 1 credit hour. (W)

**EMSP 2143 Assessment Based Management**

Comprehensive, assessment-based patient care management. Includes specific care when dealing with pediatric, adult, geriatric, and special needs patients. 1 credit hour. (W)

**EMSP 2260 Clinical – Emergency Medical EMT Paramedic – Advanced III**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 2 credit hours. (W)

**EMSP 2330 Special Populations**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations. Prerequisite: Consent of Program Director. 3 credit hours. (W)

**EMSP 2338 EMS Operations**

A detailed study of the knowledge and skills to safely manage the scene of an emergency. Prerequisites: EMSP 1161, EMSP 1338, EMSP 1355, EMSP 1356, EMSP 2135, EMSP 2434, and EMSP 2444. 3 credit hours. (W)

**EMSP 2434 Medical Emergencies**

A detailed study of the knowledge and skills in the assessment and management of patients with medical emergencies. 4 credit hours. (W)

**EMSP 2444 Cardiology**

Assessment and management of patients with cardiac emergencies. Includes basic dysrhythmia interpretation, recognition of 12-lead EKGs for field diagnosis, and electrical and pharmacological interventions. 4 credit hours. (W)

**EMSP 2463 Clinical – Emergency Medical EMT Paramedic – Advanced IV**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 4 credit hours. (W)

**ENGL 0300 Developmental Writing I**

A skills improvement course designed to help students improve basic thinking and writing skills. Focus is on paragraph and short essay writing. Basic grammar, punctuation, and sentence construction studied as needed. Lab included. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours. ENGL 0300, ENGL 0305, ENGL 0310, and ENGL 0315 may be taken for a combined total of no more than 9 credit hours.*

**ENGL 0305 Developmental Writing II**

A skills improvement course designed to help students improve thinking and writing skills. Focus is on advanced paragraph development and medium length essay writing. Emphasis on critical reading skills, analytical writing, and vocabulary building. Punctuation and sentence construction studied as needed. Lab included. Prerequisite: ENGL 0300. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours. ENGL 0300, ENGL 0305, ENGL 0310, and ENGL 0315 may be taken for a combined total of no more than 9 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. This course will teach the student to recognize and correct common errors in sentence structure. This course may be taken concurrently with any English course. Lab included. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours. ENGL 0300, ENGL 0305, ENGL 0310, and ENGL 0315 may be taken for a combined total of no more than 9 credit hours.*

**ENGL 0315 Writing, Reading, and Reasoning**

A skills improvement course designed to help students reach competencies necessary for ENGL 1301. Focuses on reading and writing medium length expository essays, with special emphasis on writing about issues arising from class readings. Students will learn to write effective, logical essays, to develop reading comprehension strategies, and to analyze, synthesize, and make value judgments using critical thinking. Lab included. Prerequisite: ENGL 0305. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours. ENGL 0300, ENGL 0305, ENGL 0310, and ENGL 0315 may be taken for a combined total of no more than 9 credit hours.*

**ENGL 1301 Composition/Rhetoric I**

Expository writing, development of paragraphs and the whole composition, study of model essays, extensive theme writing, and individual conferences. Lab required. 3 credit hours.

**ENGL 1302 Composition/Rhetoric II**

Continued development of writing skills and development of critical thinking skills in argumentation, analysis and interpretation of various types of literature, extensive reading and writing, MLA documentation, study of research methods and materials, and preparation of research paper. Lab required. Prerequisite: ENGL 1301. 3 credit hours.

**ENGL 2307 Creative Writing I**

Practical experience in the techniques of imaginative writing. In this course, emphasis will be on the writing of fiction or nonfiction. Each student will study selected literary works to improve critical reading toward the goal of improving creative writing. This course does not satisfy the college requirements for a sophomore literature course. Prerequisite: ENGL 1302. 3 credit hours.

**ENGL 2308 Creative Writing II**

Practical experience in the techniques of imaginative writing. In this course, emphasis will be on the writing of poetry or drama. Each student will study selected literary works to improve critical reading toward the goal of improving creative writing. This course does not satisfy the college requirements for a sophomore literature course. Prerequisite: ENGL 1302. 3 credit hours.

**ENGL 2311 Technical and Business Writing**

Introduction to technical writing and communications including preparation of reports, proposals, technical papers, abstracts, and summaries of specific technical interest to the student. Prerequisite: ENGL 1301. 3 credit hours.

**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 ENGL 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 ENGL 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 ENGL 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 ENGL 2311. 3 credit hours.

**ENGL 2332 World Literature I**

Study of literature from the classical Greek period through the 16th century. Analysis and evaluation of literary works in the historical, cultural, and social contexts. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours.

**ENGL 2333 World Literature II**

Study of literature from the 17th century through the 20th century. Analysis and evaluation of literary works in the historical, cultural, and social contexts. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours.

**ENGL 2342 Introduction to Literature I – Short Story and Novel**

Study of short stories, novels, and non-fiction. Analysis and evaluation of major writers, their techniques, and their contributions to our literary heritage. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours.

**ENGL 2343 Introduction to Literature II – Poetry and Drama**

Study of poetry and drama and of mythology as it relates to these genres. Analysis of our classical heritage, origins of drama, development of contemporary drama and film, and elements and types of poetry. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours.

**ENGL 2351 Mexican-American Literature**

A survey of Mexican-American/Chicano/a literature including fiction, non-fiction, poetry and drama. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours.

**ENGL 2389 Academic Co-op English**

Integrates on-campus study with practical hands-on work experience in English. In conjunction with class seminars, the student will set specific goals and objectives in the study of English. Contact the Cooperative Work Experience Office. 3 credit hours.

**ENGR 1201 Introduction to Engineering**

Introduction to engineering as a discipline and a profession. Includes instruction in the application of mathematical and scientific principles to the solution of practical problems for the benefit of society. 2 credit hours.

**ENGR 1304 Engineering Graphics**

Use of computer-aided drafting, applied geometry, engineering lettering, orthographic projections, dimensioning, pictorial drawing and sketching, sectional views, and working drawings. Lab required. Prerequisite: DFTG 1309 or consent of Instructor or Program Director. 3 credit hours.

**ENGR 2301 Engineering Mechanics I**

Calculus-based study of composition and resolution of forces, equilibrium of force systems, friction, centroids, and moments of inertia. Prerequisite: MATH 2413. 3 credit hours.

**ENGR 2302 Engineering Mechanics II**

Calculus-based study of dynamics of rigid bodies, force-mass-acceleration, work-energy, and impulse-momentum computation. Prerequisite: ENGR 2301. 3 credit hours.

**ENGR 2305 Circuits I for Electrical Engineering**

Basic principles of R, L, and C circuits; steady-state DC and AC signals; simple transient response. Includes Kirchoff's laws, Ohm's law, and Thevenin-Norton equivalence; impedance; nodal, mesh, and loop analysis; and phasors. Laboratory experiments demonstrate basic circuit and network laws and acquaint students with electrical instruments. Lab required. Prerequisites: MATH 2413, MATH 2414, and MATH 2415. Prerequisite/concurrent enrollment: MATH 2320 or consent of Program Director. 3 credit hours.

**ENGR 2332 Strength of Materials**

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/concurrent enrollment: ENGR 2301. 3 credit hours.

**ENGT 1401 Circuit Analysis I**

Fundamental concepts of electrical science covering potential, current and power in DC circuits. Fundamental laws and relationships applied to the analysis of circuits and networks:

capacitance, inductance and magnetism; single-frequency concepts; the use of computer software in design and analysis of circuits. Lab required. Prerequisite/concurrent enrollment: MATH 2312. 4 credit hours.

**ENGT 1402 Circuit Analysis II**

Complex AC circuit analysis. Network theorems, transient analysis, resonance, filters, AC power and three-phase circuits are covered in detail. Applications of computer-assisted solutions are continued. Lab required. Prerequisite: ENGT 1401; prerequisite/concurrent enrollment: MATH 2413. 4 credit hours.

**ENGT 1407 Digital Fundamentals**

Digital logic circuits and techniques. Analysis, design and simulation of combinational and sequential systems using: classical Boolean algebra techniques, laboratory hardware experiments and computer simulation. Introduction to programmable logic devices (PLDs) and application-specific integrated circuits using software tools for the design and analysis of digital logic circuits and systems. Lab required. Prerequisite: COSC 1436 or consent of Instructor or Program Director. 4 credit hours.

**ENTC 1380 Cooperative Education – Engineering Technology, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**ENTC 2380 Cooperative Education – Engineering Technology, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: ENTC 1380. 3 credit hours. (W)

**ENVR 1401 Environmental Science I**

Interdisciplinary study of both natural (biology, chemistry, geology) and social (economics, politics, ethics) sciences as they apply to the environment. Focus on current global concerns, including global warming, overpopulation, deforestation, pollution, biodiversity, and resource use. Practical laboratory experience emphasizes the application of fundamental principles of biology and chemistry as well as critical thinking and analysis. Lab required. 4 credit hours.

**ENVR 1402 Environmental Science II**

Continued interdisciplinary study of both natural (biology, chemistry, geology) and social (economics, politics, ethics) sciences as they apply to the environment. Focus on energy issues, global warming, ozone loss, land use, conservation and management, deforestation, biodiversity, the history of environmental law and regulation and local environmental problems. Lab required. Prerequisite: ENVR 1401. 4 credit hours.



**ESLC 0305 ESL Listening and Speaking: Intermediate**

Emphasis on developing non-native speakers' intermediate listening and speaking skills to facilitate natural communication. Oral skills are developed through individual presentations and interactions in dyads, and in small and large groups. Aural skills are developed through classroom interaction, outside assignments, and video and audio clips designed to enhance nonnative speakers' skills in understanding both formal and informal speech styles of English. Focus is given to students' spoken grammar, pronunciation, vocabulary, and exposure to North American culture. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**ESLC 0310 ESL Listening and Speaking: Advanced**

Emphasis on developing non-native speakers' advanced oral communication and listening competencies. Students practice natural communication regarding abstract concepts in classroom activities by working in dyads and in small and large groups while formal speaking skills are focused upon through delivery of oral presentations. Students participate in advanced level listening activities through interaction both in and out of the classroom and the use of video and audio tapes. Focus is given to students' spoken grammar, pronunciation, vocabulary and exposure to North American culture. Prerequisite: ESLC 0305. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**ESLC 0320 ESL Pronunciation and Accent Reduction**

Emphasis on teaching aspects of spoken English, including stress and intonation, individual phonemes, and awareness of connected and reduced speech. Addresses pronunciation problems of specific language groups. Attention to productive and receptive skills is facilitated through classroom activities, student work in dyads and small and large groups, audio and video taping, and individualized feedback of Instructor. Prerequisite: ESLC 0305 or consent of Instructor. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**ESLG 0305 ESL Grammar: Intermediate I**

An intermediate English grammar course designed for non-native speakers of English and is focused on verb usage. Course content supports ESLW 0305 objectives for grammar usage. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**ESLG 0310 ESL Grammar: Intermediate II**

A high-intermediate English grammar course designed for nonnative speakers of English for instruction in conditionals, gerunds, infinitives, and prepositions. Course content supports ESLW 0310 objectives for grammar usage. Prerequisite: ESLG 0305. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**ESLG 0315 ESL Grammar: Advanced**

An advanced English grammar course designed for non-native speakers of English and focused on noun clauses, adjective clauses, adverb clauses, and adverbial phrases. Course content supports ESLW 0315 objectives for grammar usage and successful transition into English 1301. Prerequisite: ESLG 0310. Prerequisite/concurrent enrollment: ESLW 0315. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**ESLR 0305 ESL Reading: Intermediate I**

Instruction in intermediate reading comprehension for nonnative speakers who score 60-74 on the Compass/ESL Test. Focuses on teaching students with lower level speaking and listening skills to identify topics, main ideas, and supporting details in simplified academic and literary texts. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours. ESLR 0305, ESLR 0310, ESLR 0315, and ESLV 0305 may be taken for a combined total of no more than 9 credit hours.*

**ESLR 0310 ESL Reading: Intermediate II**

Instruction in high-intermediate reading comprehension for non-native speakers who score 75-84 on the Compass/ESL Test. Focuses on teaching vernacular vocabulary and syntax in the informal register, context clues, topics, main ideas, supporting details, transitions, and organizational patterns for improving comprehension of abridged academic and literary texts. Prerequisite: ESLR 0305. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours. ESLR 0305, ESLR 0310, ESLR 0315, and ESLV 0305 may be taken for a combined total of no more than 9 credit hours.*

**ESLR 0315 ESL Reading: Advanced**

Instruction in advanced reading comprehension to prepare nonnative students for admission to reading-restrictive classes. To enroll, students must score 85-95 on the Compass/ESL Test. ESLR 0315 focuses on cultural allusions, connotation of vocabulary, augmentation of reading rate for non-native speakers, implied main ideas, facts and opinion, inferences and conclusions, author's purpose, tone, point of view, vocabulary, and graphic aids in unabridged academic texts. Prerequisite: ESLR 0310. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours. ESLR 0305, ESLR 0310, ESLR 0315, and ESLV 0305 may be taken for a combined total of no more than 9 credit hours.*

**ESLV 0305 ESL Vocabulary: Idioms**

Instruction in idiomatic American English for second language learners. Increases familiarity with idiomatic English to facilitate comprehension and productive use of idioms in spoken and written discourse. Prerequisites: ESLC 0305 and ESLR 0305, or consent of Instructor or Department Chair. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours. ESLR 0305, ESLR 0310, ESLR 0315, and ESLV 0305 may be taken for a combined total of no more than 9 credit hours.*



**ESLW 0305 ESL Writing: Intermediate I**

Instruction in intermediate writing skills for non-native speakers. Focuses on sentence-level writing and paragraph development. Introduces students to pre-academic, experiential writing. Trains students to develop and organize ideas in a variety of rhetorical modes. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**ESLW 0310 ESL Writing: Intermediate II**

Instruction in high-intermediate writing skills for non-native speakers. Focuses on multi-paragraph essays. Introduces students to academic writing. Trains students to develop and organize ideas in a variety of rhetorical modes. Prerequisites: ESLG 0305 and ESLW 0305. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**ESLW 0315 ESL Writing: Advanced**

Instruction in advanced essay writing designed to prepare nonnative students to enter ENGL 1301. Trains students to write academically acceptable papers in various rhetorical modes with a primary focus on argumentation. Focuses on mechanics of writing, common problems that ESL speakers encounter, research, and documentation. Prerequisites: ESLG 0310 and ESLW 0310. Prerequisite/concurrent enrollment: ESLG 0315. 3 credit hours.

*Note: May not be used to satisfy the requirement for an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

*f*

**FIRS 1301 Firefighter Certification I**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisite: Admission to the Program. 3 credit hours. (W)

**FIRS 1313 Firefighter Certification III**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisites: FIRS 1407. 3 credit hours. (W)

**FIRS 1319 Firefighter Certification IV**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisite: FIRS 1313. 3 credit hours. (W)

**FIRS 1323 Firefighter Certification V**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisite: FIRS 1319. 3 credit hours. (W)

**FIRS 1329 Firefighter Certification VI**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisites: FIRS 1323. 3 credit hours. (W)

**FIRS 1407 Firefighter Certification II**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisite: FIRS 1301, or consent of Program Director. 4 credit hours. (W)

**FIRS 1433 Firefighter Certification VII**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Prerequisite: FIRS 1329. 4 credit hours. (W)

**FIRT 1301 Fundamentals of Fire Protection**

Orientation to the fire service, career opportunities, related fields. 3 credit hours. (W)

**FIRT 1303 Fire and Arson Investigation I**

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 Program Director. 3 credit hours. (W)

**FIRT 1307 Fire Prevention Codes and Inspections**

Local building and fire prevention codes. Fire prevention inspections, practices, and procedures. Lab recommended. 3 credit hours. (W)

**FIRT 1309 Fire Administration I**

Introduction to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer. Prerequisite: FIRT 1301 or consent of Program Director. 3 credit hours. (W)

**FIRT 1315 Hazardous Materials I**

The chemical characteristics and behavior of various materials. Storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation. Lab recommended. Prerequisite: FIRT 1301 or consent of Program Director. 3 credit hours. (W)

**FIRT 1327 Building Construction in the Fire Service**

(Formerly FIRT 1329)

Components of building construction that relate to life safety. Includes relationship of construction elements and building design impacting fire spread in structures. 3 credit hours. (W)

**FIRT 1338 Fire Protection Systems**

Design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. Lab required. Prerequisite: FIRT 1301 or consent of Program Director. 3 credit hours. (W)

**FIRT 1342 Fire Officer I**

Requirements for Fire Officer I certification as established by the Texas Commission on Fire Protection. Prerequisite: FIRS 1433 or consent of Program Director. 3 credit hours. (W)

**FIRT 1343 Fire Officer II**

Requirements for Fire Officer II certification as established by the Texas Commission on Fire Protection. Prerequisite: FIRT 1342, and FIRT 2305, or consent of Program Director. 3 credit hours. (W)

**FIRT 1349 Fire Administration II**

In-depth study of fire service management as pertaining to budgetary requirements, administration, organization of divisions within the fire service, and relationships between the fire service and outside agencies. Prerequisite: FIRT 1301 or consent of Program Director. 3 credit hours. (W)

**FIRT 2305 Fire Instructor I**

(Formerly FIRT 2371)

Preparation of fire and emergency services personnel to deliver instruction from a prepared lesson plan. Includes the use of instructional aids and evaluation instruments to meet the Texas Commission on Fire Protection requirements for Fire Instructor I certification. Prerequisite: FIRS 1433. 3 credit hours. (W)

**FIRT 2307 Fire Instructor II**

Development of individual lesson plans for a specific topic including learning objectives, instructional aids, and evaluation instruments. Includes techniques for supervision and coordination of activities of other instructors to meet Texas Commission on Fire Protection requirements for Fire Instructor II certification. Prerequisite: FIRT 2305 or consent of Program Director. 3 credit hours. (W)

**FIRT 2309 Firefighting Strategies and Tactics I**

(Formerly FIRT 1331)

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 Program Director. 3 credit hours. (W)

**FIRT 2351 Company Fire Officer**

A capstone course covering fire ground operations and supervisory practices. Includes performance evaluation of incident commander, safety officer, public information officer, and shift supervisory duties. Lab required. Prerequisites: FIRT 1342, FIRT 1343, FIRT 2305, FIRT 2307, and FIRT 2309. 3 credit hours. (W)

**FLMC 1301 History of Animation Techniques**

The study from a historical perspective of 2-D and 3-D animation. This class teaches students traditional forms of animation including cell, stop-motion and zoetropes. Students will also learn the history and evolution of the animation art form. Students will produce original animations utilizing traditional techniques as projects. 3 credit hours. (W)

**FLMC 1331 Visual Graphics and Visual Effects I**

Applications of computers to digital film production. Design of computer graphic workstations and development of a rationale for selecting software, hardware, and peripherals. Lab required. Prerequisites: ARTC 1302 and ARTC 1353. 3 credit hours. (W)

**FLMC 2305 Film-Style 3-D Animation Production**

Formerly FLMC 1392 ST: 3-D Animation Short Production

Techniques in 3-D animation for film-style production. Lab required. Prerequisite: ARTV-2351 or consent of Instructor. 3 credit hours. (W)

**FLMC 2331 Video Graphics and Visual Effects II**

Designing vector and raster graphics; executing rendering techniques; designing and producing three-dimensional (3-D) materials; and selecting hardware, software, and peripherals for video production. Lab required. Prerequisites: ARTV 2372. 3 credit hours. (W)

**FREN 1100 French Conversation I**

Intensive practice in spoken French. Prerequisite: FREN 1412 or consent of Instructor or Department Chair. Corequisite: FREN 2311. 1 credit hour.

**FREN 1110 French Conversation II**

Continuation of FREN 1100. Prerequisite: FREN 1100 or consent of Instructor or Department Chair. Corequisite: FREN 2312. 1 credit hour.

**FREN 1411 Beginning French I**

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of French culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, and video cassettes. 4 credit hours.

**FREN 1412 Beginning French II**

Continuation of FREN 1411. Prerequisite: FREN 1411 or consent of Instructor or Department Chair. 4 credit hours.

**FREN 2303 French Literature I**

Survey of French literature in its historical context from the 16th century through the 18th century. Continued practice in basic language skills. Reading of selected writers such as Ronsard, Moliere, and Voltaire. Prerequisite: FREN 2312 or consent of Instructor or Department Chair. 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 or consent of Instructor or Department Chair. 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 Instructor or Department Chair. Corequisite: FREN 1100. 3 credit hours.

**FREN 2312 Intermediate French II**

Continuation of FREN 2311. Prerequisite: FREN 2311 or consent of Instructor or Department Chair. Corequisite: FREN 1110. 3 credit hours.

**GAME 1303 Introduction to Game Design and Development**

Introduction to electronic game development and game development careers. Includes examination of history and philosophy of games, the game production process, employee factors for success in the field, and current issues and practices in the game development industry. Lab required. Prerequisite: ARTV 1345. 3 credit hours. (W)

**GAME 1304 Level Design**

Introduction to the tools and concepts used to create levels for games and simulations. Incorporates level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Includes utilization of toolsets from industry titles. Lab required. Prerequisite: GAME 1303. 3 credit hours. (W)

**GAME 2342 Game Development Using C++**

Skill development in C++ programming for games and simulations. Examines real-world C++ development issues including those for real time programming. Lab required. Prerequisite: COSC 1437 or consent of Department Chair. 3 credit hours. (W)

**GAME 2359 Game and Simulation Group Project**

Creation of a game and/or simulation project utilizing a team approach. Includes animation, titles, visualization of research results, modeling with polygon frames, curves and surfaces, 3-D text and animation with keyframes, paths (objects and curves), morphing, vertex keys, skeletons, and lattices. Lab required. Prerequisite: GAME 1304. 3 credit hours. (W)

**GEOG 1301 Physical Geography**

Exploration of the physical environment; emphasis on climates, land forms, vegetation, and spatial relationships of selected geographical regions of the world. 3 credit hours.

**GEOG 1302 Cultural Geography**

Examination of the cultural and economic environment; emphasis on origins, diffusion, and distribution of races, religions, and languages. 3 credit hours.

**GEOG 1303 World Regional Geography**

Study of major developed and developing regions with emphasis on awareness of prevailing world conditions and situations. Includes emerging conditions and trends and awareness of the diversity of ideas and practices to be found in those regions. May be used to meet three semester hours of social science elective requirement for education certification in public school teaching. 3 credit hours.

**GEOL 1305 Natural Disasters**

Understanding the causes and effects of natural disasters such as earthquakes, volcanic eruptions, landslides, floods, land subsidence, coastal hazards, etc., and what we can do to mitigate, predict, control, and prevent these catastrophic events. 3 credit hours.

*Note: Students may take either GEOL 1305 or GEOL 1405 but not both.*

**GEOL 1401 Earth Science**

For the non-science major. Introduces the concepts of earth processes and their relation to man, including basic principles from physical and historical geology, oceanography, astronomy, and meteorology. Lab required. 4 credit hours.

**GEOL 1402 Dinosaurs!**

Examines evolution, ecology, and extinction of the dinosaurs from a physical and historical geology perspective. Comparative anatomy is emphasized. Dinosaur controversies will be examined in light of recent evidence. Field trips and class projects will focus on dinosaur families and habitats. Lab required. 4 credit hours.

**GEOL 1403 Physical Geology\***

A basic geology course covering a variety of topics: rocks and minerals, weathering and soils, rivers, sea coasts and ocean floors, deserts, volcanism, plate tectonics, mountain building, earthquakes and topographic maps. Lab required. 4 credit hours.

*\*This course is included in the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS) program. Please see page 75 for further information.*

**GEOL 1404 Historical Geology**

An introduction to the earth and its inhabitants as revealed in rocks and fossils. Brief survey of the plant and animal kingdoms, elementary principles of stratigraphy, and a systematic study of the development of the earth from its origin as a planet to the present. Lab required. Prerequisite: GEOL 1401 or GEOL 1403. 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.

*\*This course is included in the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS) program. Please see page 75 for further information.*

*Note: Students may take either GEOL 1305 or GEOL 1405 but not both.*

**GEOL 1445 Oceanography**

A study of the various aspects of the ocean, including origins of the ocean, earth's ocean, plate tectonics, ocean sediments, the chemistry of seawater, oceans and climate, currents, waves, tides, coastal features, oceanic ecosystems, protection of coastal areas, and resources of the oceans. Lab required. 4 credit hours.

**GEOL 1447 Introduction to Meteorology**

An examination of the Earth's atmosphere, global climate, and associated environmental factors. Includes lab exercises in weather tracking on Weather-Net computer system. Lab required. 4 credit hours.

**GEOL 2389 Academic Co-op Geology**

Integrates on-campus study with practical hands-on work experience in geology. In conjunction with class seminars, the student will set specific goals and objectives in the study of geology. Contact the Cooperative Work Experience Office. 3 credit hours.

**GERM 1100 Conversational German I**

Intensive practice in spoken German. Prerequisite: GERM 1412 or consent of Instructor or Department Chair. Corequisite: GERM 2311. 1 credit hour.

**GERM 1110 Conversational German II**

Continuation of GERM 1100. Prerequisite: GERM 1100, or consent of Instructor or Department Chair. 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 consent of Instructor or Department Chair. 4 credit hours.

**GERM 2311 Intermediate German I**

Continued development of the four basic language skills with increased attention to reading and writing. Instruction enhanced by the use of tapes, slides, and other audio-visual aids. Prerequisite: GERM 1412 or consent of Instructor or Department Chair. Corequisite: GERM 1100. 3 credit hours.

**GERM 2312 Intermediate German II**

Continuation of GERM 2311. Prerequisite: GERM 2311, or consent of Instructor or Department Chair. Corequisite: GERM 1110. 3 credit hours.

**GISC 1311 Introduction to Geographic Information Systems (GIS)**

Introduction to basic concepts of vector GIS using several industry specific software programs including nomenclature of cartography and geography. By the end of the course, students will have sufficient background so that with on-the-job experience they can become expert users of GIS in organizations - building, managing, and using GIS maps and data. Lab required. Prerequisite: BCIS 1305 or COSC 1300 or consent of Instructor or Department Chair. 3 credit hours. (W)

**GOVT 2301 American Government I**

Introduction to politics and government in the United States. Includes the origin and development of constitutional democracy in the United States, emphasizing the constitutions of the State of Texas and the United States, federalism and intergovernmental relations, local government, and the political process. 3 credit hours.

*Note: Students transferring a government course from out-of-state must enroll in this course to complete the Texas legislative requirement.*

**GOVT 2302 American Government II**

Examines the institutional structures of government at both national and state levels, including the legislative process, executive and bureaucratic structures, and judicial process. Explores civil rights and civil liberties, domestic policy, foreign relations, and national defense. 3 credit hours.

**GOVT 2304 Introduction 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. Prerequisite: Consent of Instructor. 3 credit hours.

**GOVT 2311 Mexican-American Politics**

This course explores the impact of Mexican-Americans on U. S. politics and political institutions and public policy. 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. Prerequisite: Consent of Instructor. 3 credit hours.

**GRPH 1359 Vector Graphics for Productions**

A study and use of vector graphics for production. Prerequisite: BCIS 1305 or COSC 1300 or consent of Instructor or Department Chair. 3 credit hours. (W)

**GRPH 1380 Cooperative Education – Pre-Press/Desktop Publishing and Digital Imaging Design**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

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**HAMG 1313 Front Office Procedures**

A study of the flow of activities and functions in today's lodging operations. Topics include a comparison of manual, machine assisted, and computer based methods for each front file function. credit hours. (W)

**HAMG 1319 Computers in Hospitality**

An introduction to computers and their relationship as an information system to the hospitality industry. The course includes an overview of industry-specific software. 3 credit hours. (W)

**HAMG 1321 Introduction to Hospitality Industry**

Introduction to the elements of the hospitality industry. 3 credit hours. (W)

**HAMG 1324 Hospitality Human Resources Management**

A study of the principles and procedures of managing people in the hospitality workplace. 3 credit hours. (W)

**HAMG 1340 Hospitality Legal Issues**

A course in legal and regulatory requirements that impact the hospitality industry. Topics include Occupational Safety and Health Administration (OSHA), labor regulations, tax laws, tip reporting, franchise regulations, and product liability laws. 3 credit hours. (W)

**HAMG 1380 Cooperative Education – Hospitality Administration/Management, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**HAMG 2301 Principles of Food and Beverage Operations**

An introduction to the principles of food, beverage, and labor controls with an overview of the hospitality industry from procurement to marketing. Examination of cost components



including forecasting, menu planning and pricing, logistical support, production, purchasing, and quality assurance. Lab required. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **HAMG 2305 Hospitality Management and Leadership**

An overview of management and leadership in the hospitality industry with an emphasis on management philosophy, policy formation, communications, motivation, and team building. 3 credit hours. (W)

### **HAMG 2307 Hospitality Marketing and Sales**

Identification of the core principles of marketing and their impact on the hospitality industry. 3 credit hours. (W)

### **HAMG 2332 Hospitality Financial Management**

Methods and applications of financial management within the hospitality industry. Primary emphasis on sales accountability, internal controls, and report analysis. 3 credit hours. (W)

### **HAMG 2337 Hospitality Facilities Management**

Identification of building systems, facilities management, security, and safety. 3 credit hours. (W)

### **HAMG 2581 Cooperative Education – Hospitality Administration/Management, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 5 credit hours. (W)

### **HIST 1301 U.S. History I**

History of the United States with focus on development of American characteristics and institutions, including the forging of a new society from European, African, and American cultures. Emphasis on colonial and early national periods through the Civil War and Reconstruction. Students must take 6 credit hours of HIST 1301, HIST 1302, or HIST 2301 to fulfill the Texas legislative requirement for history. 3 credit hours.

### **HIST 1302 U.S. History II**

History of the United States from 1877 to the present. Focus on the development of American society in the 20th century, response to the urban-industrial environment, the United States as a world power, and post-World War II society. Students must take 6 credit hours of HIST 1301, HIST 1302, or HIST 2301 to fulfill the Texas legislative requirement for history. 3 credit hours.

### **HIST 2301 History of Texas**

History of Texas from the Spanish period to the present. Emphasis on the period of Anglo-American settlement, revolution, Republic, and the development of the modern state. Students must take 6 credit hours of HIST 1301, HIST 1302, or HIST 2301 to fulfill the Texas legislative requirement for history. 3 credit hours.

### **HIST 2311 Western Civilizations I**

European civilization from ancient times through the Reformation, including Greece and Rome, the Church, medieval history, the Commercial Revolution, Renaissance, and the early European empire. 3 credit hours.

### **HIST 2312 Western Civilizations II**

Western Europe from post-Reformation to the present, including the Age of evolution, beginning of industrialism, growth of nationalism and democracy in the 19th century, causes and consequences of the two world wars, and modern Europe. 3 credit hours.

### **HIST-2321 World Civilizations I**

Survey of ancient and medieval history, with emphasis on Asian, African and Mediterranean cultures, including the interplay of cultural, economic and religious and political systems from earliest times to 1450. 3 credit hours.

### **HIST-2322 World Civilizations II**

Survey of modern world history, with emphasis on Asian, African, American, Asian and European cultures, including the interplay of cultural and economic forces, political and religious forms, across the globe since 1450. 3 credit hours.

### **HIST 2327 Mexican-American History I**

This course is a survey of the political, economic, social and cultural history of Mexicans in North America from the pre-Colombian Era through 1850, with emphasis on the Mexican-American War with the United States. 3 credit hours.

### **HIST 2328 Mexican-American History II**

This course is a survey of the political, economic, social and cultural history of Mexicans in North America from 1850 to present, with emphasis on the Mexican-American Cultural identity and the Civil Rights Movement in the United States. 3 credit hours.

### **HIST 2381 African-American History**

Historical, economic, social, and cultural development of minority groups with an emphasis on the experiences of peoples of African descent in the United States from the colonial era to the present. 3 credit hours.

### **HIST 2389 Academic Co-op History**

Integrates on-campus study with practical hands-on work experience in history. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of history. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Instructor. 3 credit hours.

### **HITT 1266 Practicum – Health Information/Medical Records Technology/Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The guided external experiences may be paid or unpaid. Contact the Cooperative Work Experience Office. Prerequisites: Consent of Program Director. 2 credit hours. (W)

### **HITT 1280 Cooperative Education – Health Information/Medical Records Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisites: Consent of Program Director. 2 credit hours. (W)

**HITT 1301 Health Data Content and Structure**

Introduction to systems and processes for collecting, maintaining, and disseminating primary and secondary health related information. Instruction in delivery and organizational structure to include content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens. Prerequisite: POFT 1127 and SRGT 1301, or consent of Program Director. 3 credit hours (W)

**HITT 1311 Computers in Health Care**

Introduction to the concepts of computer technology related to health care and the tools and techniques for collecting, storing, and retrieving health care data. Lab required. Prerequisites: POFT 1127 or consent of Program Director. 3 credit hours. (W)

**HITT 1342 Ambulatory Coding**

Application of basic coding rules, principles, guidelines, and conventions with emphasis on ambulatory coding. Lab required. Prerequisites: BIOL 2404 (or BIOL 2402), HITT 1301, POFM 1300, and SRGT 1301. 3 credit hours. (W)

**HITT 2245 Coding Certification Exam Review**

Coding competencies and skills pertinent to the technology and relevant to the professional development of the student in preparation for a coding certification exam. Prerequisite: HITT 2346 or consent of Program Director. 2 credit hours. (W)

**HITT 2249 RHIT Competency Review**

Review of Health Information Technology (HIT) competencies, skills, and knowledge base pertinent to the technology and relevant to the professional development of the student. Prerequisite: HITT 2361 or consent of Program Director. (W)

**HITT-2339 Health Information Organization and Supervision**

Principles of organization and supervision of human, fiscal, and capital resources of health information management organizations and departments. Prerequisites: HITT 1301, HPRS 1271, and SRGT 1301. 3 credit hours. (W)

**HITT 2343 Quality Assessment and Performance Improvement**

Study of the many facets of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation and presentation of data in statistical formats, quality improvement functions, quality tools, utilization management, risk management, and medical staff data quality issues. Prerequisite: MATH 1342. 3 credit hours. (W)

**HITT 2346 Advanced Medical Coding**

In depth coverage of ICD and CPT coding rubrics, conventions, principles, and updates as they apply to accurate coding of complex medical/surgical cases, with emphasis on case studies. Government regulations and changes in health care reporting will be addressed. Prerequisites: HITT 1342, POFM 1300, and SRGT 1301. 3 credit hours. (W)

**HITT 2361 Clinical – Health Information/Medical Records Technology**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Consent of Program Director. 3 credit hours. (W)

**HPRS 1271 Introduction to the Healthcare System**

An overview of roles of various members of the healthcare system and their educational requirements, and issues affecting the

delivery of healthcare. Additional concepts explored include the healthcare system, the continuum of care, levels of care, length of stay, healthcare providers, legal and ethical aspects of healthcare, reimbursement, healthcare policy determination, and health insurance and managed care. 2 credit hours. (W)

**HPRS 2201 Pathophysiology**

Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injuries. Lab experience provides demonstration of pathological findings of disease. Lab required. Prerequisites: BIOL 2401 and BIOL 2402. 2 credit hours. (W)

**HPRS 2300 Pharmacology for Health Professions**

A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages. 3 credit hours. (W)

**HPRS 2301 Pathophysiology**

Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injuries. 3 credit hours. (W)

**HPRS 2321 Medical Law and Ethics for Health Professionals**

Principles, procedures, and regulations governing the legal and ethical relationships among physicians, patients, and health care professionals. Includes current ethical issues related to the various healthcare professions and patient confidentiality. 3 credit hours. (W)

**HRPO 1302 Human Resource Training and Development**

An overview of the human resource development functions specifically concentrating on the training and development component. Topics include training as related to organizational mission and goals, budgeting, assessment, design, delivery, evaluation, and justification of training. Included are new trends in training, including distance and virtual education. 3 credit hours. (W)

**HRPO 2301 Human Resources Management**

Behavioral and legal approaches to the management of human resources in organizations. 3 credit hours. (W)

**HRPO 2304 Employee Relations**

An examination of employee relations policies, practices, and issues required to build strong employee relations. Topics include communications, employee conduct rules, performance appraisal methods, Title VII, Federal Medical Leave Act, Fair Labor Standards Act, and Americans with Disabilities Act updates. 3 credit hours. (W)

**HRPO 2307 Organizational Behavior**

The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts, and the integration of interdisciplinary concepts from the behavioral sciences. 3 credit hours. (W)

**HRPO 2331 International Human Resource Management**

A study of the effects of the process of internationalization on human resource management including the requirements of local or host country nationals, expatriates, or parent country nationals, and hired country nationals. Emphasis on Asia-Pacific, Europe, Latin America, and emerging economies. 3 credit hours. (W)

**HRPO 2381 Cooperative Education--Human Resources Management / Personnel Administration, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**HUMA 1301 Introduction to the Humanities**

Introduction to the Humanities focuses on the study and appreciation of representative examples of visual and performing arts, literature, music and religion of various world cultures. The exploration of interrelationships of the arts and their philosophies emphasizes the nature of humankind and the need to create. 3 credit hours.

**HUMA 1305 Introduction to Mexican-American Studies**

Introduction to the field of Mexican-American/Chicano/a Studies investigates the field from its inception to the present. This interdisciplinary survey is designed to introduce students to the salient cultural, economic, educational, historical, political, and social aspects of the Mexican-American/Chicano/a experience. 3 credit hours.

**HUMA 1311 Mexican-American Fine Arts Appreciation**

An examination of Mexican-American/Chicano/a artistic expressions in the visual and performing arts. The course will deal with the exploration of the artistic forms that make up sensibilities of the contemporary Mexican-American artist. Includes a survey of Mexican art from pre-Columbian times to the present, including Chicano folk and contemporary art, study of the styles and methods of Mexican-American music and dance. 3 credit hours.

**HUMA 2319 Cultural Identity in the U. S.**

Emphasizes the cultural, historic, social, and/or economic aspects of various U. S. cultures. Explores human values from perspectives such as national origin, language, race, and religion. May investigate these values through art, performance, and intellectual life. 3 credit hours.

*Note: This course may be repeated once for credit with a change in content for a total of 6 credit hours.*

**HUMA 2323 World Cultures**

Study of human cultures throughout history. Addresses the various guises and manifestations of individual and cultural identity as expressed in the artistic, performative, and intellectual lives of peoples throughout the world. 3 credit hours.

*Note: Students may take either ANTH 2346 or HUMA 2323 but not both.*

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**i****IBUS 1300 Global Logistics Management**

Global logistics, management processes, procedures, and regulations used in transportation, physical distribution, warehousing, inventory control, materials handling, packaging, plant and warehouse location, risk management, and networks for logistics, suppliers, and information. Includes decision making and case resolution techniques to solve problems and to develop logistical and information networks for supply chain management appropriate for global corporations. 3 credit hours. (W)

**IBUS 1301 Principles of Exports**

Export management processes and procedures. Includes governmental controls and compliance, licensing of products, documentation, commercial invoices, and traffic procedures. Emphasizes human and public relations, management of personnel, finance, and accounting procedures. 3 credit hours. (W)

**IBUS 1302 Principles of Imports**

Practices and processes of import management operations. Includes government controls and compliance. Emphasizes the preparation and understanding of import documents such as customs invoices, packing lists, and commercial invoices. 3 credit hours. (W)

**IBUS 1305 Introduction to International Business and Trade**

The techniques for entering the international marketplace. Emphasis on the impact and dynamics of sociocultural, demographic, economic, technological, and political-legal factors in the foreign trade environment. Topics include patterns of world trade, internationalization of the firm, and operating procedures of the multinational enterprise. 3 credit hours. (W)

**IBUS 1341 Global Supply Chain Management**

International purchasing or sourcing. Includes the advantages and the barriers of purchasing internationally, global sourcing, procurement technology, and purchasing processes. Emphasizes issues of contract administration, location, and evaluation of foreign suppliers, total cost approach, exchange fluctuations, customs procedures, and related topics. 3 credit hours. (W)

**IBUS 1354 International Marketing Management**

Analysis of international marketing strategies using market trends, costs, forecasting, pricing, sourcing, and distribution factors. Development of an international export/import marketing plan. 3 credit hours. (W)

**IBUS 1380 Cooperative Education - International Business/Trade/Commerce**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**IBUS 2335 International Business Law**

A course in law as it applies to international business transactions in the global political-legal environment. Study of interrelationships among laws of different countries and the legal effects on individuals and business organizations. Topics include agency agreements, international contracts and administrations, regulations of exports and imports, technology transfers, regional transactions, intellectual property, product liability, and legal organization. 3 credit hours. (W)

**IBUS 2341 Intercultural Management**

Cross-cultural comparisons of management and communications processes. Emphasizes cultural geographic distinctions and antecedents that affect individual, group, and organizational behavior. May include sociocultural demographics, economics, technology, political-legal issues, negotiations, and processes of decision making in the international cultural environment. 3 credit hours. (W)



### **IBUS 2345 Import Customs Regulations**

Duties and responsibilities of the licensed customs broker. Includes processes for customs clearance including appraisalment, bonded warehouse entry, examination of goods, harmonized tariffs, fees, bonding, penalties, quotas, immediate delivery, consumption, and liquidation, computerized systems, laws, and regulations. 3 credit hours. (W)

### **IBUS 2381 Cooperative Education - International Business/Trade/Commerce**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **IFWA 1310 Nutrition and Menu Planning**

Application of principles of nutrition in planning menus for the food service industry. 3 credit hours. (W)

### **IMED 1301 Introduction to Multimedia**

A survey of the theories, elements, and hardware/software components of multimedia. Topics include digital image editing, digital sound and video editing, animation, web page development, and interactive presentations. Emphasis on conceptualizing and producing effective multimedia presentations. The focus of the class is interface design, including: color theory, typography, graphics, layout, and interactive design. Prerequisite: BCIS 1305 or COSC 1300 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **IMED 1316 Web Design I**

Instruction in web page design and related graphic design issues including mark-up languages, web sites and browsers. Lab required. Prerequisites: ARTC 1302 or PHTC 1300; and ARTC 1325; or consent of Instructor. 3 credit hours. (W)

### **IMED 1341 Interface Design**

Skill development in the interface design process including selecting interfaces that are meaningful to users and relative to a project's content and delivery system. Emphasis on aesthetic issues such as iconography, screen composition, colors, and typography. Prerequisite: ITSE 1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **IMED 1345 Interactive Multimedia I – Flash**

Exploration of the use of graphics and sound to create interactive multimedia applications and/or animations using industry standard authoring software. Prerequisite: BCIS 1305 or COSC 1300 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **IMED 2301 Instructional Design**

An in-depth study of the instructional design process based on learning theories, including evaluation of models and design examples. 3 credit hours. (W)

### **IMED 2309 Internet Commerce**

An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Topics include dynamic data, integration, and creating web sites in order to collect information, performing on-line transactions. Lab required. Prerequisite: ITSE 1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **IMED 2313 Project Analysis and Design**

Application of the planning process for multimedia or web including costing, preparation, production legal issues, and guidelines for preproduction preparation and creation of a comprehensive design document. Includes target audience analysis, purpose and goals, objectives, content outline, flow chart, and storyboard. Emphasis on content design and production management. Prerequisite: Consent of Department Chair. 3 credit hours. (W)

### **IMED 2315 Web Design II**

A study of mark-up language advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing web sites according to accessibility standards, cultural appearance, and legal issues. Lab required. Prerequisite: IMED 1316. 3 credit hours. (W)

### **IMED 2345 Interactive Multimedia II – Flash II**

Instruction in the use of scripting language to create interactive multimedia applications. Topics include building a user interface, writing script, testing, and debugging. Advanced use of graphics and sound to create interactive multimedia animations using industry standard authoring software. Prerequisite: IMED 1345 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **IMED 2349 Internet Communications – Web Servers**

Web server software installation, configuration, and maintenance. Includes scripting, website planning, testing, security, production, and marketing. Lab required. Prerequisite: ITSE 1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **INDS 1301 Basic Elements of Design**

A study of basic design concepts with projects in shape, line, value, texture, pattern, spatial illusion, and form. Lab required. 3 credit hours. (W)

### **INDS 1315 Materials, Methods, and Estimating**

A study of materials, methods of construction and installation, and estimating for interior design applications. Lab required. Prerequisite: INDS 1301 or consent of Program Director. 3 credit hours. (W)

### **INDS 1319 Technical Drawing for Interior Designers**

An introduction to reading and preparing technical construction drawings for interior design, including plans, elevations, details, schedules, dimensions and lettering. Both manual and AutoCAD plans will be generated. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

### **INDS 1341 Color Theory and Applications**

A study of color theory and its applications to interior design. Actual interior design will be given that will involve applying various color systems, with emphasis on Munsell. The student will learn mixing techniques to gain desired hue; value and chroma (intensities) for solving design color schemes. Color psychology and phenomena will be investigated. The students will be introduced to elements and principles of design and will learn to achieve balance, rhythm, emphases, harmony, and variety through the use of color. Additive and subtractive color mixing, and relationship of light will be examined. Lab required. 3 credit hours. (W)



**INDS 1345 Commercial Design I**

A study of design principles applied to furniture layout and space planning for commercial interiors. Lab required. Prerequisites: DFTG 1309 and INDS 1301. 3 credit hours. (W)

**INDS 1351 History of Interiors I**

Historical survey of antiquities and European styles and periods of architecture, interiors, and furnishings. With consideration of Egypt, Greece, Italy, Spain, and France. Lab required. 3 credit hours. (W)

**INDS 1352 History of Interiors II**

Historical survey of English, American, Asian, and 20th Century styles and periods of architecture, interiors, and furnishings. Lab required. Prerequisite: INDS 1351. 3 credit hours. (W)

**INDS 1371 Introduction to Green Design**

A general study of Green Design and sustainable environment. Explore the basic principles of Green/Sustainable Design including passive solar, alternative energy, green water technology, recycling, green building certification outline, and interior air quality in built environment. Lab required. 3 credit hours. (W)

**INDS 1372 Computer-Aided Drafting for Interior Designers**

An introduction to computer-aided drafting. Emphasis is placed on setup; general knowledge of CAD software; reading basic blueprint; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; and plot/print to scale; interior furniture layouts. Lab required. 3 credit hours. (W)

**INDS 1373 Green Interiors I**

Course introduces students to Green interior design and built environment. Emphasis is placed on: analyzing Indoor Air Quality, green interior material and finishes, green cleaning materials, and providing plans and solutions for creating a healthier interior environment. Lab required. Prerequisite: INDS 1371. 3 credit hours. (W)

**INDS 1380 Cooperative Education – Interior Design**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**INDS 2307 Textiles for Interior Design**

The study of interior design textiles including characteristics, care, codes, and applications. Prerequisites: DFTG 1309, INDS 1301, and INDS 1341 or consent of Program Director. 3 credit hours. (W)

**INDS 2313 Residential Design I**

The study of residential spaces, including the identification of client needs, programming, standards, space planning, drawings, and presentations. Lab required. Prerequisites: DFTG 1309, INDS 1301, and INDS 1341. 3 credit hours. (W)

**INDS 2315 Lighting for Interior Designers**

Fundamentals of lighting design, including lamps, luminaries, lighting techniques, and applications for residential and commercial projects. Lab required. 3 credit hours. (W)

**INDS 2321 Presentation Drawing**

An introduction to two-and three-dimensional presentations, including drawings with one- and two-point perspectives, plans, and elevations. Lab required. Prerequisites: DFTG 1309, INDS 1301, and INDS 1341. 3 credit hours. (W)

**INDS 2330 Interior Design Building Systems**

An overview of building materials, mechanical systems, and construction techniques as applied to interior design. Discussion of codes, project sequencing and the interpretation of detailed working drawings. Lab required. Prerequisite: INDS 1345. 3 credit hours. (W)

**INDS 2331 Commercial Design II**

Advanced concepts of specialized commercial interior design projects, including hospitality, corporate, retail, health care, institutional, or other specialized commercial design projects. Lab required. Prerequisite: INDS 1345. 3 credit hours. (W)

**INDS 2335 Residential Design II**

A comprehensive study of complex residential interior design problems, including advanced space planning, specifications, budgets, and presentation renderings. Lab required. Prerequisites: DFTG 2319, INDS 1319, INDS 2313, and INDS 2321. 3 credit hours. (W)

**INDS 2337 Portfolio Presentation**

A course in the preparation and presentation of a comprehensive interior design portfolio, including resume preparation, employment interview skills, and goal setting. Lab required. Prerequisite: Consent of Program Director. 3 credit hours. (W)

**INDS 2373 Green Interiors II**

This advanced course focuses on Green interior design and built environment. Emphasis is placed on: analyzing recycling contents and procedures, basic knowledge of LEED (Leadership in Energy and Environment Design) certification process, and selecting green materials to retrofit the existing interior materials. Lab required. Prerequisite: INDS 1373. 3 credit hours. (W)

**INEW 2330 Comprehensive Software Project: Planning and Design**

A comprehensive application of skills learned in previous courses in a simulated workplace. Covers the development, testing, and documenting of a complete software and/or hardware solution. This course may be used as a capstone course for a certificate or degree. Prerequisite: Consent of Instructor. (W)

**INEW 2334 Advanced Web Programming – ASP .NET**

Programming for web authoring. Includes industry-standard languages and data stores. Topics may include Perl Scripts, Common Gateway Interface (CGI), Database Interaction, Active Server Pages, Java Applets, JavaScripts, tables, HTML, and/or interactive elements. Students will build, implement, and execute fully functional, fully-interactive, dynamic web applications using Active Server Pages (ASP) and other technologies. Prerequisites: COSC 1315 and ITSE 1311 or consent of Instructor or Department Chair. (W)

**INEW 2338 Advanced Java Programming**

A continuation of Java programming techniques such as servlets, and advanced graphical functions. Topics cover the Java 2 Platform, Enterprise Edition (J2EE) which defines the standard for developing component-based multi-tier enterprise applications. The focus of this class will be on development of Java Servlets and Java Server Pages (JSPs). Prerequisite: COSC 1337 or ITSE 2317 or consent of Instructor or Department Chair. 3 credit hours. (W)

**INEW 2340 Object-Oriented Design**

A study of large system analysis and design concepts from the object-oriented perspective. Includes determining required objects and their interfaces. Also covers relationships between objects. Prerequisite: COSC 1337 or COSC 1437 or consent of Department Chair. 3 credit hours. (W)

**INMT 1417 Industrial Automation**

A study of the applications of industrial automation systems including identification of system requirements, equipment integration, motors, controllers, and sensors. Coverage of setup, maintenance, and testing of the automated system. Lab required. 4 credit hours. (W)

**INTC 1305 Introduction to Instrumentation**

A survey of the instrumentation field and the professional requirements of the instrumentation technician. Includes computer and calculator applications. Lab required. 3 credit hours. (W)

**INTC 1307 Electronic Test Equipment**

Theory and application of analog and digital test equipment. Emphasizes accuracy, limitations of instruments, and calibration techniques. Lab required. 3 credit hours. (W)

**ITAL 1411 Beginning Italian I**

Introduction to the basic skills of speaking, reading, writing, and listening. Intended for students with little or no previous training in Italian. 4 credit hours.

**ITAL 1412 Beginning Italian II**

Continuation of ITAL 1411. Prerequisite: ITAL 1411 or consent of Instructor or Department Chair. 4 credit hours.

**ITCC 1302 CCNA 1: Networking Basics**

A course introducing the basics of networking. Includes network terminology, local area networks (LAN) and wide area networks (WAN). Also covers network protocols such as TCP/IP, Open System Interconnection (OSI) models, cabling, routers, and subnetting. Introductory coverage of the fundamental principals of fiber optic cables and networks is included along with the usage of applicable hand tools. Fire and personal safety are also discussed. Lab required. 3 credit hours. (W).

**ITCC 1306 CCNA 2: Router and Routing Basics**

An introduction to basic Cisco router configuration for local area networks. Topics include initial router configuration for TCP/IP, management of Cisco IOS and router configuration files, routing protocols, and access control lists. An introduction to Gigabit Ethernet and IPv6 is covered along with concepts related to network monitoring and the utilization of tools such as the network analyzer. Lab required. Prerequisite: ITCC 1302. 3 credit hours. (W)

**ITCC 1342 CCNA 3: Switching Basic and Intermediate Routing**

A course focusing on advanced topics including IP addressing techniques, intermediate routing protocols, Command Line Interface (CLI), configuration of switches, Ethernet switching, VLANs, Spanning Tree Protocol, and VLAN Trunking Protocol. Documentation requirements and techniques are discussed as well as troubleshooting within a multiprotocol networking environment. Lab required. Prerequisite: ITCC 1306. 3 credit hours. (W)

**ITCC 1346 CCNA 4: Wide Area Network (WAN) Technologies**

This course focuses on advanced IP addressing techniques (Network Address Translation [NAT], Port Address Translation [PAT], and Dynamic Host Configuration Protocol (DHCP), WAN technology and terminology, Point to Point Protocol (PPP), Integrated Services Digital Network (ISDN), DDR, Dial on Demand Routing (DDR), Frame Relay, network management and introduction to optical networking. In addition, the student will prepare for the CCNA exam. Security concepts including firewalls and encryption are considered, and detailed emphasis on the application of voice, data, and video convergence concepts are covered in this course. Lab required. Prerequisite: ITCC 1342. 3 credit hours. (W)

**ITCC 2432 CCNP 1: Advanced Routing**

A study of advanced network deployment issues and methods used to configure Cisco routers for effective LAN and WAN traffic management. Topics include designing scalable internetworks, managing traffic, configuring OSPF in single and multiple areas, configuring EIGRP, configuring and using interior and border gateway routing protocols and techniques used for route filtering and route redirection. Lab required. Prerequisite: ITCC 1346 or consent of Program Director. 4 credit hours. (W)

**ITCC 2436 CCNP 2: Remote Access**

Designing and building remote access networks with Cisco products. Includes assembling and cabling WAN components, configuring network connections via asynchronous modem, ISDN, X.25, broadband, Virtual Private Network (VPN), and frame relay architectures and associated protocols. Lab required. Prerequisite: ITCC 2432 or consent of Program Director. 4 credit hours. (W)

**ITCC 2440 CCNP 3: Multilayer Switching**

This course introduces students about the deployment of the state-of-the-art campus LANs. The course focuses on the selection and implementation of the appropriate Cisco IOS services to build reliable scalable multilayer-switched LANs. Students will develop skills with VLANs, VTP, STP, inter-VLAN routing, multilayer switching, redundancy, Cisco AVVID solutions, Quality of Service (QoS) issues, campus LAN security, and emerging transparent LAN services. Key course stresses the design, implementation, operation, and troubleshooting of switched and routed environments. Lab required. Prerequisite: ITCC 2436 or consent of Program Director. 4 credit hours. (W)

**ITCC 2444 CCNP 4: Internetwork Troubleshooting**

This course focuses on documenting and baselining networks and Layer 1 through 4 troubleshooting. Topics include Cisco Troubleshooting Tools, diagnosing and correcting problems within TCP/IP, Frame Relay and ISDN network connections. Lab required. Prerequisite: ITCC 2440 or consent of Program Director. 4 credit hours. (W)

**ITMC 1476 Installing and Administering Microsoft Windows 2003 Server**

An introduction to Microsoft Windows 2003 Server operating system in a single domain environment. Topics include basic installation, configuration tasks, and day-to-day administration tasks in a Windows 2003-based network. Lab required. Prerequisite: ITNW 1358 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT 1300 Implementing and Supporting Microsoft Windows XP Professional**

Addresses the implementation and desktop support needs of customers that are planning to deploy and support Microsoft Windows XP Professional in a variety of stand-alone and network operating system environments. In-depth, hands-on training for Information Technology (IT) professionals responsible for the planning, implementation, management, and support of Windows XP Professional. Lab required. Prerequisite: ITNW 1358 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITMT 1440 Managing and Maintaining a Microsoft Windows Server 2003 Environment**

Managing accounts and resources, maintaining server resources, monitoring server performance, and safeguarding data in a Microsoft Windows Server 2003 environment. Lab required. Prerequisite: ITMT 1300 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT 1450 Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services**

Implementing routing; implementing, managing, and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access. Lab required. Prerequisite: ITMT 1300 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT 1455 Planning, Implementing, and Maintaining a Microsoft Server 2003 Network Infrastructure**

Planning and maintaining a Windows Server 2003 network infrastructure. Lab required. Prerequisite: ITNW 2471 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT 2400 Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure**

Windows Server 2003 directory service environment. Includes forest and domain structure; Domain Name System (DNS); site topology and replication; organizational unit structure and delegation of administration; Group Policy; and user, group, and computer account strategies. Lab required. Prerequisite: ITMT 1455 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT 2403 Administering a Microsoft SQL Server Database**

*Formerly ITMC 2403*

In-depth coverage of the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server databases. Lab required. Prerequisite: ITMT 1300 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT 2430 Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure**

Designing a Microsoft Active Directory service and network infrastructure for a Microsoft Windows Server 2003 environment. Intended for systems engineers who are responsible for designing directory service and/or network infrastructures. Lab required. Prerequisite: Consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT 2440 Designing Security for Microsoft Networks**

Assembling the design team, modeling threats, and analyzing security risks in order to meet business requirements for securing computers in a networked environment. Includes decision-making skills through an interactive tool that simulates real-life scenarios. Focuses on collecting information and sorting through details to resolve a given security requirement. Lab required. Prerequisite: Consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT 2446 Implementing and Administering Security in a Microsoft Windows Server 2003 Network**

Addresses the Microsoft Certified Systems Administrator (MCSA) and Microsoft Certified Systems Engineer (MCSE) skills path for information technology security practitioners. Focuses on Microsoft Windows Server 2003 infrastructure solutions. Includes client-focused content where appropriate. Provides functional skills in planning and implementing infrastructure security. Lab required. Prerequisite: ITMT 2400 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT 2450 Implementing and Managing Microsoft Exchange**

Updating and supporting a reliable, secure messaging infrastructure used for creating, storing, and sharing information by using Microsoft Exchange Server 2003. Includes a significant amount of hands-on practices, discussions, and assessments to assist students in becoming proficient in the skills necessary to update and support Exchange Server 2003. Lab required. Prerequisite: ITMT 1300 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITNW 1280 Cooperative Education – Computer Systems Networking and Telecommunications**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 2 credit hours. (W)

**ITNW 1358 Network+**

Prepares individuals for a career as a Network Engineer in the Information Technology support industry. Includes the various responsibilities and tasks required for service engineer to successfully perform in a specific environment. Prepares individual to pass the Computing Technology Industry Association (CompTIA) Network+ certification exam. Lab required. 3 credit hours. (W)

**ITNW 1380 Cooperative Education – Computer Systems Networking and Telecommunications**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)



**ITNW 1449 Cisco Fundamentals of Network Security**

Prepares Cisco-qualified students to take two Cisco certification exams: Managing Cisco Network Security and Cisco Secure PIX Firewall. Includes configuring secure Cisco routers and PIX firewalls. Focuses on overall network security processes. Lab required. Prerequisite: ITCC 1346 or consent of Program Director. 4 credit hours. (W)

**ITNW 1451 Fundamentals of Wireless LANs**

Designing, planning, implementing, operating, and troubleshooting wireless LANs (WLANs). Includes WLAN design, installation, and configuration; and WLAN security issues and vendor interoperability strategies. Lab required. 4 credit hours. (W)

**ITNW 1454 Implementing and Supporting Servers**

Implement, administer, and troubleshoot information systems that incorporate servers in a networked computing environment. Lab required. Prerequisite: ITNW 1358 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITNW 2305 Network Administration**

Topics include network components, user accounts and groups, network file systems, file system security, and network printing. Preparation to effectively manage a Novell NetWare network. Lab required. Prerequisite: ITNW 1358. 3 credit hours. (W)

**ITNW 2346 Small Office Home Office: Case Study I**

*Formerly EECT 2371*

Application of network concepts learned in previous courses. Includes responsibilities and tasks required to successfully perform in the Small Office Home Office (SOHO) environment. Prepares individuals for a career as a Network Engineer in the Information Technology support industry. Includes the various responsibilities and tasks required for service engineer to successfully perform in a specific environment. Case Study I challenges the student to apply the network concepts learned in previous courses to a case-study based problem in a Small Office – Home Office environment. Lab required. Prerequisites: EECT 1407 and ITNW 1454 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITNW 2350 Enterprise Network: Case Study II**

*Formerly EECT 2372*

A case study in Convergence Technologies requiring a network engineer to study a problem and design a network solution for an enterprise network. Convergence Technology Case Study II prepares an individual for a career in the Information Technology support industry as a Network Engineer. The course includes various responsibilities and tasks required to successfully perform in a specific environment. Case Study II challenges the student to apply the network concepts learned in previous courses to a case-study-based problem in an Enterprise Network. Lab required. Prerequisites: EECT 1371, ITNW 2346, and ITNW 2471 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITNW 2374 Linux Security**

The focus of this course is on advanced topics concerning management and advanced security features of systems incorporating Redhat Linux operating system as a server in a networked environment. Areas covered will include Theory of operation, base systems, shells and commands, system services, applications, and troubleshooting. This course will help the student prepare for the Redhat Certified Systems Engineer certification. Lab required. Prerequisite: ITNW 1358 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITNW 2471 Implementing, Managing, and Maintaining a Microsoft Windows 2003 Environment**

*Formerly ITNW 2404*

Preparation for Exam 70-291. Includes configuring a Windows-based computer to operate in a Microsoft Windows Server 2003 networking infrastructure. Lab required. Prerequisite: ITNW 1454 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITSC 1309 Integrated Software Applications I – MS Office**

Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. Prerequisite: POFT 1127 or POFT 1329 or POFT 2301 or consent of Department Faculty Contact. 3 credit hours. (W)

**ITSC 1316 Linux Installation and Configuration**

*Formerly ITNW 2373*

Open-source Linux operating system. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application installation. Emphasizes hands-on setup, administration, and management of Linux. Also covers maintaining and securing reliable Linux systems. Lab required. Prerequisite: ITNW 1358 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSC 1364 Practicum – Computer and Information Sciences, General**

A basic or intermediate type of non-health professions workbased instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience. Prerequisite: Consent of Department Chair. 3 credit hours. (W)

**ITSC 2380 Cooperative Education – Computer and Information Sciences, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**ITSE 1301 Web Design Tools – Graphics**

Designing and publishing Web documents according to World Wide Web Consortium (W3C) standards. Includes graphic design issues and exploration of tools available for creating and editing Web documents. Includes in-depth technical investigation of digital imaging on the computer using image editing and/or image creation software. Manipulation, creation, and editing of digital images for a wide assortment of output. Will explore use of industry standard web editing and graphics software packages such as Adobe Fireworks, Adobe Photoshop, and Adobe Dreamweaver. Prerequisite: BCIS 1305 or COSC 1300 or consent of Instructor. 3 credit hours. (W)

**ITSE 1306 Computer Programming Using Hypertext Preprocessor (PHP)**

Hypertext preprocessor (PHP). Includes the basics of PHP, design of web-based applications, arrays, strings, regular expressions, file I/O, e-mail and database interfaces, stream and network programming, debugging, and security. Emphasizes hands-on



programming skills necessary to develop secure and reliable PHPbased web applications. Lab required. Prerequisites: COSC 1315 and ITSE 1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **ITSE 1311 Beginning Web Programming**

Skill development in web page programming including markup and scripting languages. May include use of XHTML, CGI, JavaScript, and/or ASP. Introduction to structure and object oriented programming design. Students use Cascading Style Sheets (CSS), XHTML, and JavaScript to design and implement interactive web pages. Hands-on labs allow student to experience each topic discussed. Prerequisite: BCIS 1305 or COSC 1300 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **ITSE 1330 Introduction to C# Programming**

A study of C# syntax including data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling. Prerequisite: COSC 1337 or COSC 1437 or consent of Department Chair. 3 credit hours. (W)

### **ITSE 1332 Introduction to Visual Basic.NET Programming**

*Replaces ITSE 1431*

A study of Visual Basic .NET (VB .NET) syntax including: data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling. An introduction to programming using the Visual Basic .NET language. 3 credit hours. (W)

### **ITSE 1347 Programming with Visual Basic.NET**

*Replaces ITSE 2349*

Designing and developing enterprise applications using Microsoft Visual Basic.NET in the Microsoft.NET Framework. Includes reference types, class relationships, polymorphism, operators overloading, and creating and handling exceptions. An introduction to Object Oriented Programming techniques. Prerequisite: ITSE 1332. 3 credit hours. (W)

### **ITSE 1356 Extensible Markup Language (XML)**

Introduction of skills and practices related to Extensible Markup Language (XML). Includes Document Type Definition (DTD), well-formed and valid XML documents, XML schemes, and Extensible Style Language (XSL). Prerequisite: ITSE 1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **ITSE 1359 Introduction to Scripting Languages – AJAX**

Introduction to scripting languages including: basic data types, control structures, regular expressions, input/output, and textual analysis. Students will learn how to design and implement programming solutions using JavaScript, Cascading Style Sheets, and XML. Course includes introduction to AJAX (Asynchronous Javascript) and related technologies. Prerequisite: ITSE 2302 or consent of Instructor. 3 credit hours. (W)

### **ITSE 1380 Cooperative Education – Computer Programming/ Programmer, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **ITSE 2301 Windows Programming Using C++**

Introduction to computer programming for Windows using C++. Emphasis on the fundamentals of object-oriented design, development, testing, implementation, and documentation. Includes language syntax, data, and file structures, input/output devices, and files. Uses Visual C++ in an integrated development environment. Prerequisite: COSC 1437 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **ITSE 2302 Intermediate Web Programming**

Techniques for web development. Includes server-side and clientside scripting. Topics may include Perl, HTML, Java applets, JavaScript, and/or ASP. Students design and implement fully interactive web sites using Dynamic HTML (DHTML) techniques that combine XHTML with CSS and JavaScript. Hands-on labs allow students to experience each of the topics discussed. Prerequisite: ITSE 1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **ITSE 2304 Visual Basic.NET Database Development with ADO.NET**

*Replaces ITSE 1344*

Visual Basic.NET applications to access data from a database. Emphasizes Object-Oriented Programming (OOP) and database programming with ADO.NET. Prerequisites: ITSE 1332 and ITSW 1307. 3 credit hours. (W)

### **ITSE 2309 Database Programming – SQL**

Database development using database programming techniques emphasizing database structures, modeling, and database access. 3 credit hours. (W)

### **ITSE 2313 Web Authoring – Dreamweaver**

Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. Prerequisite: ITSE 1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **ITSE 2317 Java Programming**

Introduction to object-oriented Java programming. Emphasizes the fundamental syntax and semantics of Java for applications and web applets. Review of control structure and data types with emphasis on structured data types. Applies the object-oriented paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Includes basic analysis of algorithms, searching and sorting techniques, and introduction to software engineering. Lab required. Prerequisite: COSC 1436 or consent of Department Chair. 3 credit hours. (W)

### **ITSE 2334 Advanced Visual Basic.NET Programming with ASP .NET**

*Replaces ITSE 2350*

Windows Forms, ADO .NET, XML, Data Bound Controls, DataSet, Assemblies, Attributes, Reflection, Marshalling and Remoting, Threads and Synchronization, Streams, Deployment, Generics, Partial Classes, Application Blocks, and data encryption. Emphasizes using the more advanced features of the .NET Framework Class Library and web programming with ASP .NET. Prerequisites: ITSE 1311 and ITSE 1347. 3 credit hours. (W)

### **ITSE 2338 C# Database Development with ADO.NET**

C# applications to access data from a database. Emphasizes Object-Oriented Programming (OOP) and database programming with ADO.NET. Prerequisite: ITSE 1330 or consent of Instructor or Department Chair. 3 credit hours. (W)

**ITSE 2347 Advanced Database Programming – Advanced SQL**

Database development using complex database programming techniques emphasizing multiple interrelated files, menu design, security implementation, and multiple access. Procedural SQL will be used to study control constructs, cursors, exception handlers, procedures, functions, and data warehousing. Prerequisite: ITSE 2309 or consent of Department Chair. 3 credit hours. (W)

**ITSE 2353 Advanced C# Programming with ASP.NET**

Windows Forms, ADO.NET, XML, Data Bound Controls, DataSet, Assemblies, Attributes, Reflection, Marshalling and Remoting, Threads and Synchronization, Streams, Deployment, Generics, Partial Classes, Application Blocks, and data encryption. Emphasizes using the more advanced features of the .NET Framework Class Library and web programming with ASP.NET. Prerequisite: ITSE 1330 or consent of Department Chair. 3 credit hours. (W)

**ITSE 2380 Cooperative Education – Computer Programming/Programmer, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**ITSE 2431 Advanced C++ Programming**

Further application of C++ programming techniques including file access, abstract data structures, class inheritance, and other advanced techniques. Review of control structure and data types with emphasis on structured data types. Applies the object-oriented paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering. Lab required. Prerequisite: COSC 1436 or consent of Department Chair. 4 credit hours. (W)

**ITSW 1304 Introduction to Spreadsheets – Excel**

Instruction in the concepts, procedures, and application of electronic spreadsheets. Prerequisite: BCIS 1305 or COSC 1300 or consent of Instructor or Department Chair. 3 credit hours. (W)

**ITSW 1307 Introduction to Database – Access**

Introduction to database theory and the practical applications of a database. Prerequisite: BCIS 1305 or COSC 1300 or consent of Instructor or Department Chair. 3 credit hours. (W)

**ITSW 1380 Cooperative Education – Data Processing and Data Processing Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**ITSW 2380 Cooperative Education – Data Processing and Data Processing Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement

among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: ITSW 1380 or consent of Department Chair. 3 credit hours. (W)

**ITSY 1300 Fundamentals of Information Security**

Basic information security goals of availability, integrity, accuracy, and confidentiality. Vocabulary and terminology specific to the field of information security are discussed. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning and administrative controls is also discussed. Lab required. Prerequisite: BCIS 1305 or COSC 1300 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSY 2300 Operating System Security**

Safeguard computer operating systems by demonstrating server support skills and designing and implementing a security system. Identify security threats and monitor network security implementations. Use best practices to configure operating systems to industry security standards. Lab required. Prerequisite: Any ITCC, ITMC, ITMT or ITNW course, or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSY 2301 Firewalls and Network Security**

Identify elements of firewall design, types of security threats and responses to security attacks. Use Best Practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities. Prerequisite: ITSY 2300 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSY 2342 Incident Response and Handling**

In-depth coverage of incident response and incident handling, including identifying sources of attacks and security breaches; analyzing security logs; recovering the system to normal; performing postmortem analysis; implementing and modifying security measures. Prerequisite: ITSY 2300 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSY 2343 Computer System Forensics**

In-depth study of system forensics including methodologies used for analysis of computer security breaches. Gather and evaluate evidence to perform postmortem analysis of a security breach. Lab required. Prerequisite: ITSY 2342 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSY 2359 Security Assessment and Auditing**

Capstone experience for the security curriculum. Synthesizes technical material covered in prior courses to monitor, audit, analyze, and revise computer and network security systems to ensure appropriate levels of protection are in place. Lab required. Prerequisites: ITSY 2300 and ITSY 2401 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSY 2371 e-Commerce and Biometric Authentication**

Capstone experience for the security curriculum. Examine digital cryptography including various encryption and key exchange methods, Public Key Infrastructure, digital certificates and digital signatures. Learn e-Commerce and hands-on biometric methods used to authenticate to digital devices. Prerequisites: ITSY 2300 and ITSY 2301 or consent of Instructor or Program Director. 3 credit hours. (W)

### **ITSY 2401 Firewalls and Network Security**

Identify elements of firewall design, types of security threats and responses to security attacks. Use best practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities. Lab required. Prerequisite: ITSY 2300 or consent of Instructor or Program Director. 4 credit hours. (W)

### **ITSY 2441 Security Management Practices**

In-depth coverage of security management practices, including asset evaluation and risk management; cyber law and ethics issues; policies and procedures; business recovery and business continuity planning; network security design; and developing and maintaining a security plan. Lab required. Prerequisite: ITSY 2300 or consent of Instructor or Program Director. 4 credit hours. (W)

### **ITSY 2442 Incident Response and Handling**

In-depth coverage of incident response and incident handling, including identifying sources of attacks and security breaches; analyzing security logs; recovering the system to normal; performing postmortem analysis; and implementing and modifying security measures. Lab required. Prerequisite: ITSY 2300 or consent of Instructor or Program Director. 4 credit hours. (W)

### **ITSY 2443 Computer System Forensics**

In-depth study of system forensics including methodologies used for analysis of computer security breaches. Gather and evaluate evidence to perform postmortem analysis of a security breach. Lab required. Prerequisite: ITSY 2442 or consent of Instructor or Program Director. 4 credit hours. (W)

### **ITSY 2459 Security Assessment and Auditing**

Capstone experience for the security curriculum. Synthesizes technical material covered in prior courses to monitor, audit, analyze, and revise computer and network security systems to ensure appropriate levels of protection are in place. Lab required. Prerequisites: ITSY 2300 and ITSY 2401 or consent of Instructor or Program Director. 4 credit hours. (W)

## **j**

### **JAPN 1411 Beginning Japanese I**

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Japanese culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, and video cassettes. 4 credit hours.

### **JAPN 1412 Beginning Japanese II**

A continuation of JAPN 1411. Prerequisite: JAPN 1411 or consent of Instructor or Department Chair. 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 or consent of Instructor or Department Chair. 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 or consent of Instructor or Department Chair. 3 credit hours.

## **l**

### **LEAD 1301 Introduction to Leadership Theory (SLA I)**

Study of the various theoretical and practical concepts of leadership and the development of leadership styles. Deliver presentations, create individual portfolios, and work in teams developing strategic initiatives. Prerequisites: Student must have a 2.5 GPA, and submit application for consideration and admittance. 3 credit hours.

### **LEAD 2301 Advanced Leadership Theory (SLA II)**

Concepts essential to the nature of leadership, including the conceptual background theories, approaches, styles and ethical issues in leadership research and thinking. Prerequisites: LEAD 1301, student must have a 2.5 GPA, and submit application for consideration and admittance. 3 credit hours.

### **LGLA 1303 Legal Research**

Law library techniques and computer assisted legal research. Prerequisite: LGLA 1307 or LGLA 1342 or consent of Instructor or Department Faculty Contact. 3 credit hours. (W)

### **LGLA 1305 Legal Writing**

This course provides a working knowledge of the fundamentals of effective legal writing. Topics include briefs, legal memoranda, case and fact analysis, citation forms, and legal writing styles. 3 credit hours. (W)

### **LGLA 1307 Introduction to Law and the Legal Professions**

This course provides an overview of the law and the legal professions. Topics include legal concepts, systems, and terminology; ethical obligations and regulations; professional trends and issues with particular emphasis on the paralegal. 3 credit hours. (W)

### **LGLA 1342 Federal Civil Litigation**

Fundamental concepts and procedures of federal civil litigation with emphasis on the paralegal's role. 3 credit hours. (W)

### **LGLA 1344 Texas Civil Litigation**

Fundamental concepts and procedures of Texas civil litigation with emphasis on the paralegal's role. Prerequisite: LGLA 1342 or consent of Instructor or Department Faculty Contact. 3 credit hours. (W)

### **LGLA 1353 Wills, Trusts, and Probate Administration**

This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal's role. 3 credit hours. (W)

### **LGLA 1355 Family Law**

This course presents fundamental concepts of family law with emphasis on the paralegal's role. Topics include formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship. 3 credit hours. (W)



**LGLA 1380 Cooperative Education – Legal Assistant/Paralegal**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**LGLA 2239 Certified Legal Assistant Review**

This course provides a review of the mandatory and optional topics covered in the Certified Legal Assistant Examination administered by the National Association of Legal Assistants. 2 credit hours. (W)

**LGLA 2303 Torts and Personal Injury Law**

This course presents fundamental concepts of tort law with emphasis on the paralegal's role. Topics include intentional torts, negligence, and strict liability. 3 credit hours. (W)

**LGLA 2307 Law Office Management**

Basic principles and structure of management, administration, and substantive systems in the law office. Includes law practice technology as applied to paralegals. 3 credit hours. (W)

**LGLA 2311 Business Organizations**

Basic concepts of business organizations with emphasis on the paralegal's role. Topics include law of agency, sole proprietorships, partnerships, corporations, and other emerging business entities and legal issues affecting business. Prerequisite: LGLA 1307 or LGLA 2333 or consent of Instructor or Department Faculty Contact. 3 credit hours. (W)

**LGLA 2333 Advanced Legal Document Preparation**

Preparation of legal documents by paralegals based on hypothetical fact situations drawn from various areas including real estate, family law, contracts, litigation, and business organizations. Prerequisite: POFI 1301 or POFI 2301, or consent of Instructor or Department Faculty Contact. 3 credit hours. (W)

**LGLA 2337 Mediation**

Alternative dispute resolution. Emphasizes the role of the paralegal in mediation. Includes differences between mediation and arbitration, the process of mediation, and dispute resolution techniques. 3 credit hours. (W)

**LOTT 1401 Introduction to Fiber Optics**

An introductory course in fiber optics and its application including advantages of fiber, light transmission in fiber, types of fiber, sources, detectors, and connectors. Lab required. 4 credit hours. (W)

**LOTT 1443 Geometrical Optics I**

Theory of light as a geometric ray. Applications of the laws of reflection and refraction from the mathematical, graphical, and experimental aspects. Lab required. Prerequisite: MATH 1314 or consent of Instructor or Program Director. 4 credit hours. (W)

**LOTT 1444 Fundamentals of Laser and Laser Safety**

An introduction to the general nomenclature of the laser including laser safety, light and its properties, lasing action, optical cavities, modes of oscillation, and laser characteristics and classifications. Lab required. Prerequisite: LOTT 1443 or consent of Instructor or Program Director. 4 credit hours. (W)

**LOTT 2436 Wave Optics**

Principles and theory of light and its wave nature including origin of light, spectral characteristics of light, radiometry, photometry, reflection, refraction, propagation of light, interference, diffraction, and polarization. Lab required. Prerequisite: LOTT 1443 or consent of Instructor or Program Director. 4 credit hours. (W)

**LOTT 2440 Microwave Fundamentals**

Introduction to microwave theory and applications, transmitter and receiver. Lab required. Prerequisite: CETT 1409 or consent of Instructor or Program Director. 4 credit hours. (W)

**LOTT 2449 Photonics**

A study of wave and quantum aspects of optical radiation and various applications of coherent and non-coherent photonic devices. Emphasis on fiber optics, opto-electronic devices, and photo devices as they apply to industrial controls, data transmission, and telecommunications. Lab required. Prerequisites: LOTT 1443 and LOTT 2436 or consent of Instructor or Program Director. 4 credit hours. (W)

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**MATH 0131 Beginning Algebra I**

This course is an introduction to algebra that also includes the review of foundations of algebra (real number system, operations with real numbers, exponents and order of operations). The course is designed to develop an understanding of solving linear equations, graphing linear equations and introduction to functions. Graphing calculator is required. Lab included. Prerequisite: MATH 0302. 1 credit hour.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**MATH 0132 Beginning Algebra II**

This course is designed to develop an understanding of rules of exponents, polynomials, operations with polynomials, and factoring of the polynomials. The course also includes solving quadratic equations by factoring. Graphing calculator is required. Lab included. Prerequisite: MATH 0131. 1 credit hour.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**MATH 0133 Beginning Algebra III**

This course is designed to develop an understanding of problem solving techniques, rational expressions and equations. Graphing calculator is required. Lab included. Prerequisite: MATH 0132. 1 credit hour.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**MATH 0141 Intermediate Algebra I**

Solving linear inequalities, algebra of functions, and composition of functions, slope, and different forms of an equation of a line will be discussed in this course. Graphing calculator is required. Lab included. Prerequisite: MATH 0305 or MATH 0133. 1 credit hour.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*



**MATH 0142 Intermediate Algebra II**

Solving systems of linear equations and inequalities, radical expressions and functions, operations with radical expressions, and radical equations are discussed in this course. Graphing calculator is required. Lab included. Prerequisite: MATH 0141. 1 credit hour.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**MATH 0143 Intermediate Algebra III**

The study of complex numbers, rationalizing denominators of radical expressions, quadratic equations, solving nonlinear inequalities, and circles is included in this course. Graphing calculator is required. Lab included. Prerequisite: MATH 0142. 1 credit hour.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**MATH 0300 Basic Mathematics**

Study of arithmetic operations with whole numbers, fractions, decimals, percents, and basic geometry. Introduction to algebra including signed numbers, expressions, and equations. Lab included. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 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. Prerequisite: MATH 0300. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.*

**MATH 0305 Beginning Algebra**

Study of rational numbers, expressions, linear and quadratic equations, absolute value equations, polynomials, factoring, rational expressions, rational equations, exponents and graphing linear equations. Lab included. Prerequisite: MATH 0302. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours. Students may be eligible to take MATH 0305 in three 5-week blocks at the Preston Ridge Campus. Please contact the Developmental Education Office (972.881.5720) for details.*

**MATH 0310 Intermediate Algebra**

Study of exponents, functions, radical expressions and equations, quadratic equations and functions, linear and quadratic inequalities, systems of equations and inequalities, and graphing linear equations and inequalities. Lab included. Prerequisite: MATH 0305. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours. Students may be eligible to take MATH 0310 in three 5-week blocks at the Preston Ridge Campus. Please contact the Developmental Education Office (972.881.5720) for details.*

**MATH 1314 College Algebra**

Relations and functions: linear, polynomial, rational, exponential, logarithmic and inverse functions, composition of functions, absolute value, theory and systems of equations, complex numbers, matrices, sequences, and the binomial theorem. Graphing calculator required. Lab required. Prerequisite: MATH 1332 or placement. 3 credit hours.

*Note: Students may take either MATH 1314 or MATH 1414 but not both.*

**MATH 1316 Trigonometry**

Angular measure, functions of angles, identities, solution of triangles, equations, inverse trigonometric functions, complex numbers, and polar coordinates. Graphing calculator required. Prerequisite: MATH 1314 or MATH 1414 or placement. 3 credit hours.

**MATH 1324 Finite Mathematics**

Equations, inequalities, functions, matrices, linear programming including the simplex method, probability, and statistics. Graphing calculator required. Lab required. Prerequisite: MATH 1332 or placement. 3 credit hours.

**MATH 1325 Calculus for Business and Economics I**

Differential and integral calculus, including exponential and logarithmic functions, average value of a function, and basic differential equations. Graphing calculator required. Lab required. Prerequisite: MATH 1314, MATH 1324, or MATH 1414. 3 credit hours.

**MATH 1332 College Mathematics**

Topics to include graphs and applications to linear and quadratic functions, logarithmic and exponential functions with growth and decay, arithmetic and geometric sequences, mathematics of finance, introductory statistics, counting methods, probability, and other topics in management science and consumer mathematics. Prerequisite: Placement. 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: MATH 1332 or placement. 3 credit hours.

**MATH 1350 Fundamentals of Mathematics I**

Concepts of sets, functions, numeration systems, number theory and properties of the natural numbers, integers, rational and real number systems with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4-8) teacher certification and includes the foundational math concepts taught at the middle grade level. Prerequisite: MATH 1314 or MATH 1414. 3 credit hours.

**MATH 1351 Fundamentals of Mathematics II**

Concepts of geometry, probability and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4-8) teacher certification and includes the foundational math concepts taught at the middle grade level. Prerequisite: MATH 1314, MATH 1350, or MATH 1414. 3 credit hours.

### **MATH 1376 Calculus for Business and Economics II**

Continuation of MATH 1325. In this course, application of differential equations, functions of several variables, Lagrange Multipliers, Least Squares Modeling, multiple integrals and infinite series will be covered. Basic concepts are related to multivariable calculus. Graphing calculator required. Lab required. Prerequisite: MATH 1325. 3 credit hours.

### **MATH 1414 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. Basic algebra will be reviewed as needed. Graphing calculator required. Prerequisite: MATH 1332 or placement. 4 credit hours.

*Note: Students may take either MATH 1314 or MATH 1414 but not both.*

### **MATH 2305 Discrete Mathematics**

Introductory mathematical logic, algorithms, induction, relations and functions, basic counting techniques, and applications to computing devices. Lab required. Prerequisite: MATH 1376, MATH 2413, or MATH 2417. 3 credit hours.

### **MATH 2312 Pre-Calculus**

Functions and analytic geometry including polynomial, rational, exponential, logarithmic, and trigonometric functions, complex numbers, vectors, conics, transformation of coordinates, polar coordinates, and parametric equations. Emphasis on mathematical reasoning in preparation for calculus. Graphing calculator required. Lab required. Prerequisite: MATH 1316. 3 credit hours.

### **MATH 2318 Linear Algebra**

Linear equations, matrices, real vector spaces, linear transformations, and eigenvectors. Graphing calculator required. Prerequisite: MATH 2414 or MATH 2419. 3 credit hours.

### **MATH 2320 Differential Equations**

First order differential equations, including exact, separable, linear, and substitution methods. Higher order linear differential equations, power series methods, Laplace transforms, systems of first order linear differential equations, and Euler numerical method. Graphing calculator required. Prerequisite: MATH 2414 or MATH 2419. 3 credit hours.

### **MATH 2373 Matrices, Vectors, and Linear Programming**

Not for science majors. A study of matrices, vectors, determinants, inverses, system of linear equations, and linear programming with applications. Graphing calculator required. Prerequisite: MATH 1314 or MATH 1414. 3 credit hours.

### **MATH 2413 Calculus I\***

Limits, continuity, derivatives, applications of the derivative, definite, and indefinite integrals. Graphing calculator required. Lab included. Prerequisite: MATH 2312. 4 credit hours.

*\*This course is included in the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS) program. Please see page 75 for further information.*

### **MATH 2414 Calculus II\***

Applications of integration, techniques of integration, infinite series, parametric equations and polar functions, differential equations, and vectors. Graphing calculator required. Lab

included. Prerequisite: MATH 2413. 4 credit hours.

*\*This course is included in the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS) program. Please see page 75 for further information.*

### **MATH 2415 Calculus III\***

Vectors in two and three dimensions, vector-valued functions, functions of several variables, partial differentiation, multiple integration, and calculus of vector fields. Graphing calculator required. Lab included. Prerequisite: MATH 2414 or MATH 2419. 4 credit hours.

*\*This course is included in the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS) program. Please see page 75 for further information.*

### **MATH 2417 Accelerated Calculus I\***

A study of limits, continuity, the derivative, applications of the derivatives, the definite and indefinite integral and their applications, techniques of integration, derivatives and integrals of trigonometric, logarithmic, hyperbolic, and exponential functions, separable differential equations and their applications. Graphing calculator required. Lab included. Prerequisite: MATH 2312. 4 credit hours.

*\*This course is included in the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS) program. Please see page 75 for further information.*

### **MATH 2419 Accelerated Calculus II\***

A study of infinite series, parametric equations and polar functions, vectors in two and three dimensions, vector-valued functions, functions of several variables, cylindrical and spherical coordinates, partial derivatives, multiple integrals and their applications. Graphing calculator required. Lab included. Prerequisite: MATH 2414 or MATH 2417. 4 credit hours.

*\*This course is included in the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS) program. Please see page 75 for further information.*

### **MDCA 1343 Medical Insurance/Billing**

Emphasizes accurate ICD-9 and CPT coding of office procedures for payment/reimbursement by patient or third party and prevention of insurance fraud. Additional topics may include managed care or medical economics. Medical insurance billing included. Prerequisite: SRGT 1301. 3 credit hours. (W)

### **MDCA 1348 Pharmacology and Administration of Medications**

Instruction in concepts and application of pharmacological principles. Focuses on drug classifications, principles and procedures of medication administration, mathematical systems and conversions, calculation of drug problems, and medico-legal responsibilities of the medical assistant. Experience in medication administration in the peri-operative care of surgical patients is provided in the campus laboratory. Lab required. Prerequisites: BIOL 2401 and BIOL 2402. 3 credit hours. (W)

### **MDCA 1409 Anatomy and Physiology for Medical Assistants**

Emphasis on normal human anatomy and physiology of cells, tissues, organs, and systems with overview of common pathophysiology. Lab required. Prerequisites: EMSP 1501, and consent of Program Director. 4 credit hours. (W)

**MRKG 1301 Customer Relations**

General principles of customer service including skills, knowledge, attitudes, and behaviors. 3 credit hours. (W)

**MRKG 1302 Principles of Retailing**

Introduction to the retailing environment and its relationship to consumer demographics, trends, and traditional/nontraditional retailing markets. The employment of retailing techniques and the factors that influence modern retailing. 3 credit hours. (W)

**MRKG 1311 Principles of Marketing**

Introduction to the marketing functions; identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research. 3 credit hours. (W)

**MRKG 1380 Cooperative Education – Marketing/Marketing Management, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**MRKG 2348 Marketing Research and Strategies**

A simulated marketing environment for experience in marketing decision-making. Provides practical experiences in analyzing marketing cases. Includes dynamic interrelationships among marketing price, channels of distribution, promotion, and product responsibility. 3 credit hours. (W)

**MRKG 2349 Advertising and Sales Promotion**

Integrated marketing communications. Includes advertising principles and practices. Emphasizes multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints. 3 credit hours. (W)

**MRKG 2381 Cooperative Education – Marketing/Marketing Management, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**MRMT 1267 Practicum – Medical Transcription/Transcriptionist**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Contact the Health Information Technology Program Director. To be completed during the last semester of the Medical Transcription Certificate. Contact the Cooperative Work Experience (CWE) Office. Prerequisite: Consent of Program Director. 2 credit hours. (W)

**MRMT 1307 Medical Transcription I**

Fundamentals of medical transcription with hands-on experience in transcribing physician dictation including basic reports such as history and physicals, discharge summaries, consultation, operative reports, and other medical reports. Utilizes transcribing

and information processing equipment compatible with industry standards. Designed to develop speed and accuracy. Lab required. Prerequisites: Consent of Program Director. Corequisite: POFT 1307 and SRGT 1301, or consent of Program Director. 3 credit hours. (W).

**MRMT 2333 Medical Transcription II**

Production of advanced reports of physician dictation with increasing speed and accuracy including history and physicals, consultations, discharge summaries, operative reports, and other medical reports. Lab required. Prerequisites: MRMT 1307, POFT 1307, and POFT 2301. 3 credit hours. (W)

**MRMT 2371 Medical Transcription III**

Instruction in and hands-on practice of highly-productive transcription techniques using current technology. Production of advanced surgery and medical specialties reports of physician dictation, using shortcuts and text-expanding options as preparation for meeting rapid turnaround transcription requirements. Lab required. Prerequisites: MRMT 2333 and POFT 1301. 3 credit hours. (W)

**MUAP 1101-1191 Secondary Applied Music**

Private instruction in the area of the student's major, consisting of one 25-minute lesson per week. Students must remain enrolled 1 credit hour of a MUEN course, attend weekly Departmental recitals for the semester, and participate in a jury. Prerequisite: Audition. Contact Music Department for permission prior to registering. 1 credit hour.

*Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2391.*

MUAP 1101 Violin  
 MUAP 1105 Viola  
 MUAP 1109 Cello  
 MUAP 1113 Double Bass  
 MUAP 1115 Electric Bass  
 MUAP 1117 Flute  
 MUAP 1121 Oboe  
 MUAP 1125 Bassoon  
 MUAP 1129 Clarinet  
 MUAP 1133 Saxophone  
 MUAP 1137 Trumpet  
 MUAP 1141 French Horn  
 MUAP 1145 Trombone  
 MUAP 1149 Baritone  
 MUAP 1153 Tuba  
 MUAP 1157 Percussion  
 MUAP 1158 Drum Set  
 MUAP 1161 Guitar  
 MUAP 1162 Jazz Guitar  
 MUAP 1163 Steel String Guitar  
 MUAP 1165 Organ  
 MUAP 1169 Piano  
 MUAP 1170 Jazz Piano  
 MUAP 1177 Harp  
 MUAP 1181 Voice  
 MUAP 1187 Composition  
 MUAP 1188 Electroacoustic Composition  
 MUAP 1189 Songwriting  
 MUAP 1190 Arranging  
 MUAP 1191 Conducting



### **MUAP 2201-2291 Concentration Applied Music**

For full-time Performing Arts majors (Music, Dance, Theatre) only. Private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in at least 4 (four) Performing Arts credits, including one MUSI, MUSB, or MUSC course, at least 1 credit hour of a MUEN course, attend weekly Departmental recitals for the semester, perform in 1 (one) Departmental recital, and participate in a jury for the semester. Prerequisite: Audition. Contact Music Department for permission prior to registering. 2 credit hours.

*Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2391.*

MUAP 2201 Violin  
MUAP 2205 Viola  
MUAP 2209 Cello  
MUAP 2213 Double Bass  
MUAP 2215 Electric Bass  
MUAP 2217 Flute  
MUAP 2221 Oboe  
MUAP 2225 Bassoon  
MUAP 2229 Clarinet  
MUAP 2233 Saxophone  
MUAP 2237 Trumpet  
MUAP 2241 French Horn  
MUAP 2245 Trombone  
MUAP 2249 Baritone  
MUAP 2253 Tuba  
MUAP 2257 Percussion  
MUAP 2258 Drum Set  
MUAP 2261 Guitar  
MUAP 2262 Jazz Guitar  
MUAP 2263 Steel String Guitar  
MUAP 2265 Organ  
MUAP 2269 Piano  
MUAP 2270 Jazz Piano  
MUAP 2277 Harp  
MUAP 2281 Voice  
MUAP 2284 Vocal Coaching  
MUAP 2287 Composition  
MUAP 2288 Electroacoustic Composition  
MUAP 2289 Songwriting  
MUAP 2290 Arranging  
MUAP 2291 Conducting

### **MUEN 1121 Jazz Lab Band**

Participation in a large band concentrating on jazz and commercial music performance styles. Consisting of 16-21 instrumentalists and one vocalist, the band performs both traditional and contemporary jazz literature. A number of performances both on and off campus are given each semester. Prerequisite: Audition. 1 credit hour.

*Note: Students may take MUEN 1121, MUEN 1122, and MUEN 1123 for a combined total of no more than 8 credit hours.*

### **MUEN 1131 New Music Ensemble**

Performs experimental, avant garde, electronic, and contemporary music for mixed media ensemble. Prerequisite: Audition. 1 credit hour.

*Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.*

### **MUEN 1132 Keyboard Ensemble**

Traditional piano literature for multiple performers and arrangements for electronic keyboard ensemble. Several performances each semester. Prerequisite: Audition. 1 credit hour.  
*Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.*

### **MUEN 1133 Woodwind Ensemble**

A small group of woodwinds performs traditional classical repertoire. Prerequisite: Audition. 1 credit hour.

*Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.*

### **MUEN 1134 Brass Ensemble**

A small group of brass players performs traditional classical repertoire. Prerequisite: Audition. 1 credit hour.

*Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.*

### **MUEN 1135 Expressions Combo**

Expressions Combo is a small ensemble (4-6) of musicians who serve as the rhythm section for the Expressions Vocal Jazz ensemble. In addition to rehearsing and performing with Expressions, the combo also prepares its own arrangements and performs as an independent ensemble. Typical repertoire includes bebop, Latin, and fusion standards. This ensemble may have several performances each semester. This group may have an annual tour. Prerequisite: Audition. 1 credit hour.

*Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.*

### **MUEN 1136 Chamber Ensemble**

A mixed instrumentation of wind and string players performs traditional classical repertoire. Prerequisite: Audition. 1 credit hour.

*Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.*

### **MUEN 1137 Guitar Ensemble**

A small group of guitarists performs traditional classical repertoire. Prerequisite: Audition. 1 credit hour.

*Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.*

### **MUEN 1138 Percussion Ensemble**

A small group of percussion players performs jazz and traditional repertoire. Prerequisite: Audition. 1 credit hour.

*Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.*



**MUEN 1139 String Ensemble**

A small group of string players performs traditional classical repertoire. Prerequisite: Audition. 1 credit hour.

*Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.*

**MUEN 1140 Jazz Combo**

Participation in a small jazz ensemble concentrating on jazz and commercial music performance styles. Ensemble consists of 4-9 instrumental/vocal members. Repertoire includes instrumental and vocal music typical of small jazz groups. A number of performances both on and off campus are given each semester. Prerequisite: Audition or consent of Instructor. 1 credit hour.

*Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.*

**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. This ensemble may have several performances each semester. This group may have an annual tour. Prerequisite: Consent of Instructor. 1 credit hour.

*Note: Student may take MUEN 1141 and MUEN 1142 for a combined total of no more than 8 credit hours.*

**MUEN 1142 Expressions Vocal Jazz Ensemble**

This group works on a wide variety of jazz styles throughout the year. They also work in conjunction with a jazz combo allowing them to experience solo jazz singing. This select ensemble of 10-16 singers has several performances each semester. This group may have an annual tour. Prerequisite: Audition. 1 credit hour.

*Note: Student may take MUEN 1141 and MUEN 1142 for a combined total of no more than 8 credit hours.*

**MUEN 1151 Chamber Singers**

A select vocal ensemble consisting of approximately 16 singers. Repertoire includes madrigals and choral literature appropriate for the smaller ensemble. There may be several performances on and off campus each semester. This group may have an annual tour. Prerequisite: Audition. 1 credit hour.

*Note: Student may take MUEN 1151 and MUEN 1152 for a combined total of no more than 8 credit hours.*

**MUEN 1152 Musical Theatre Ensemble**

Musical Theater Ensemble is a mixed vocal ensemble consisting of approximately 10 to 15 acting singers with experience in Musical Theater performance. Repertoire will include ensemble singing from contrasting periods of the 20th and 21st Century including classic Musical Theater from the 1940's to the 1960's, musical theater literature from the 1970's to the 1990's and contemporary Musical Theater compositions. Students will also study the differences in vocal and musical styles associated with each period and the technical production appropriate to sing these styles. In addition, they will experience solo singing appropriate to differing periods in Musical Theater; work on staging ensemble numbers and perform a final showcase. The group may present several performances during the semester. Prerequisite: Audition. 1 credit hour.

*Note: Student may take MUEN 1151 and MUEN 1152 for a combined total of no more than 8 credit hours.*

**MUSB 1305 Survey of the Music Business**

An overview of the music industry including songwriting, live performance, the record industry, music merchandising, contracts and licenses, and career opportunities. 3 credit hours. (W)

**MUSB 2301 Music Marketing**

Methods of distribution, retailing, and wholesaling. Includes identifying a target market, image building, distribution (brick and mortar vs. digital delivery), pricing, advertising, and marketing mix. Prerequisite: MUSB 1305. 3 credit hours. (W)

**MUSB 2355 Legal Aspects of the Entertainment Industry**

Copyright law and the various agreements used in the entertainment industry. Emphasizes contracts used by music publishers, record companies, artist managers, record producers, film and television producers, and booking agencies. Prerequisite: MUSB 1305. 3 credit hours. (W)

**MUSB 2380 Cooperative Education – Music Management and Merchandising**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**MUSC 1171 Commercial Class Piano I**

Fundamentals of keyboard technique for the non-music major or for the commercial music student. Lab required. 1 credit hour. (W)

**MUSC 1172 Commercial Class Piano II**

A continuation of MUSC 1171 with added emphasis on development of sight-reading skills, repertoire, and keyboard technique. Lab required. Prerequisite: MUSC 1171 or consent of Instructor. 1 credit hour. (W)

**MUSC 1209 Conducting Class**

Introduction to the art of conducting including regular and irregular beat patterns, subdivision, and beat pattern varieties applied to musical literature and practical experiences. 2 credit hours. (W)

**MUSC 1303 History of Popular Music**

A study of commercial music industry trends and developments through historical analysis. Topics include the evolution of the music industry with emphasis on the development of popular musical styles and the impact of culture and technology on industry growth. 3 credit hours. (W)

**MUSC 1321 Songwriting I**

Introduction to the techniques of writing marketable songs including the writing of lyrics and melodies, setting lyrics to music, developing lyrical and musical "hooks," analyzing the marketplace, and developing a production plan for a song demo. 3 credit hours. (W)

**MUSC 1323 Audio Electronics**

Basic concepts in electricity, Ohm's Law, circuit analysis and troubleshooting audio problems. Includes soldering techniques and equipment maintenance. Lab required. Corequisite: MUSC 1327. Offered spring semester only. 3 credit hours. (W)

**MUSC 1327 Audio Engineering I**

Overview of the recording studio. Includes basic studio electronics and acoustic principles, waveform properties, microphone concepts and miking techniques, studio set up and signal flow, recording console theory, signal processing concepts, recorder principles and operation, and an overview of mixing and editing. Lab required. Prerequisite: Consent of Instructor. 3 credit hours. (W)

**MUSC 1330 Computer Music Notation I**

Survey of music notation software and applications with skill development in computer music notation. Lab required. Prerequisite: MUSI 1301. 3 credit hours. (W)

**MUSC 1331 MIDI I**

Exploration of the history and evolution of Musical Instrument Digital Interface (MIDI) systems and applications. Includes the MIDI language and applications in the studio environment using software-based sequencing programs. Lab required. 3 credit hours. (W)

**MUSC 1333 Synthesis I**

An exploration of sound synthesis. Includes additive, subtractive, and FM synthesizers. Lab required. 3 credit hours. (W)

**MUSC 1405 Live Sound I**

An overview of the field of live sound. Includes principles of live sound and the theory and interconnection of the components of a sound reinforcement system. Lab required. Corequisite: MUSC 1327. 4 credit hours. (W)

**MUSC 2314 Improvisation Theory I**

Chordal structures of commercial music genres. Emphasizes extemporaneous performance. 3 credit hours. (W)

**MUSC 2330 Commercial Music Arranging and Composition**

Presentation of arranging and composition for projects in industry recognized genres including songwriting, show writing, video, and film. Class covers popular nomenclature/theory, discovering music sources, common orchestration, writing for rhythm section and manuscript for individual parts. 3 credit hours. (W)

**MUSC 2345 Synthesis II**

Advanced sound synthesis. Includes hybrid synthesis and digital sampling. Lab required. Prerequisite: MUSC 1333. 3 credit hours. (W)

**MUSC 2351 Audio for Video**

Advanced audio techniques for video production. Includes synchronization, automated mixdown, audio post production for video, and editing techniques. Lab required. Prerequisite: ARTV 1343 or MUSC 1327. 3 credit hours. (W)

**MUSC 2355 MIDI II**

Advanced MIDI concepts and techniques. Includes synchronizing MIDI and audio devices and advanced sequencer operation. Lab required. Prerequisite: MUSC 1331. 3 credit hours. (W)

**MUSC 2356 Songwriting II**

Continuation in the development of techniques for 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. Prerequisite: MUSC 1321, or consent of Instructor. 3 credit hours. (W)

**MUSC 2427 Audio Engineering II**

Implementation of the recording process, microphones, audio console, multitrack recorder, and signal processing devices. Lab required. Prerequisites: MUSC 1327 with a grade of "B" or better; or consent of Instructor. 4 credit hours. (W)

**MUSC 2447 Audio Engineering III**

Advanced practice of procedures and techniques in recording and manipulating audio. Includes digital audio editing, advanced recording techniques, and advanced engineering projects. Lab required. Prerequisite: MUSC 2427 with a grade of "B" or better; or consent of Instructor. 4 credit hours. (W)

**MUSC 2448 Audio Engineering IV**

The role of the producer. Includes recording, mixing, arranging, analyzing projects, session planning, communication, budgeting, business aspects, technical considerations, and music markets. Covers advanced techniques in recording, mixing, and editing. Lab required. Prerequisite: MUSC 2447 with a grade of "B" or better; or consent of Instructor. 4 credit hours. (W)

**MUSI 1116 Aural Skills I**

Skills developed include sight-singing, solmization, and melodic and harmonic dictation. Corequisite: MUSI 1311. 1 credit hour.

*Note: Student may take MUSI 1116 and MUSI 1117 for a combined total of no more than 6 credit hours.*

**MUSI 1117 Aural Skills II**

Further emphasis on diatonic sight-singing and dictation. Prerequisite: MUSI 1116. Corequisite: MUSI 1312. 1 credit hour.

*Note: Student may take MUSI 1116 and MUSI 1117 for a combined total of no more than 6 credit hours.*

**MUSI 1157 Opera Workshop I**

Performance of portions or complete operas and the study of the integration of music, acting, and staging of an opera. Prerequisite: Consent of Instructor. 1 credit hour.

*Note: Student may take MUSI 1157 and MUSI 1158 for a combined total of no more than 4 credit hours.*

**MUSI 1158 Opera Workshop II**

A continuation of Opera Workshop I. Developing advanced techniques in the integration of music, acting, and staging an opera. Prerequisite: MUSI 1157. 1 credit hour.

*Note: Student may take MUSI 1157 and MUSI 1158 for a combined total of no more than 4 credit hours.*

**MUSI 1159 Musical Theatre Workshop I**

Study and performance of works in the musical theatre repertoire. Prerequisite: Consent of Instructor. 1 credit hour.

*Note: Student may take either MUSI 1159 or DRAM 1161 but not both.*

**MUSI 1160 Italian Diction**

Presents the phonetic sounds of the Italian language, the principles of which will be applied to required vocal repertoire. Required for voice majors, but open to all students with consent of Instructor. 1 credit hour.

**MUSI 1161 English Diction**

Presents the phonetic sounds of the English language, the principles of which will be applied to required vocal repertoire for transfer music majors. Required for voice majors, but open to all students with consent of Instructor. 1 credit hour.

**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. Lab required. 1 credit hour.

*Note: Student may take MUSI 1181, MUSI 1182, MUSI 2181, and MUSI 2182 for a combined total of no more than 4 credit hours.*

**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. Lab required. Prerequisite: MUSI 1181. 1 credit hour.

*Note: Student may take MUSI 1181, MUSI 1182, MUSI 2181, and MUSI 2182 for a combined total of no more than 4 credit hours.*

**MUSI 1183 Class Voice I**

Class instruction in the fundamentals of singing including posture, breath support, vocal production, and diction. For the non-vocal major. 1 credit hour.

*Note: Student may take MUSI, 1183, MUSI 1184, MUSI 2183, and MUSI 2184 for a combined total of no more than 4 credit hours.*

**MUSI 1184 Class Voice II**

A continuation of MUSI 1183 with further emphasis on proper technique and vocal literature. Prerequisite: MUSI 1183. 1 credit hour.

*Note: Student may take MUSI, 1183, MUSI 1184, MUSI 2183, and MUSI 2184 for a combined total of no more than 4 credit hours.*

**MUSI 1192 Class Guitar I**

Class instruction in the fundamentals of beginning guitar. For the non-guitar major. 1 credit hour.

*Note: Student may take MUSI, 1192, MUSI 1193, MUSI 2192, and MUSI 2193 for a combined total of no more than 4 credit hours.*

**MUSI 1193 Class Guitar II**

Continuation of MUSI 1192 employing advanced reading skills, chord structures, and techniques. Prerequisite: MUSI 1192. 1 credit hour.

*Note: Student may take MUSI, 1192, MUSI 1193, MUSI 2192, and MUSI 2193 for a combined total of no more than 4 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 1304 Foundations of Music: Teaching Elementary Piano**

This course examines various methods, materials, theories, and techniques used in the instruction of keyboard from preschool through intermediate levels, in both individual and group situations. A basic understanding of the physiological mechanics of piano playing and the professional business role of the independent piano studio will be explored. A thorough investigation will be made of current teaching materials and repertoire representing different levels of development. Student must demonstrate advanced proficiency in piano to be eligible to enroll in this course. Prerequisites: Consent of Instructor. 3 credit hours.

**MUSI 1306 Music Appreciation**

Understanding music through the study of cultural periods, major composers, and musical elements. For non-music majors only. Music majors must take MUSI 1307. 3 credit hours.

**MUSI 1307 Introduction to Music Literature**

Study of selected works in music literature from major periods of music history. Includes musical styles, forms, and composers from the Medieval period to the present. Guided listening experiences are an important part of the course. Required for all music majors. Offered spring semesters. 3 credit hours.

**MUSI 1310 History of Jazz**

Development of jazz music in the 20th century studied through text, audio, and video recordings. Includes the personalities and elements that shaped jazz and the social issues of the times as displayed by the music of each decade. 3 credit hours.

**MUSI 1311 Music Theory I**

The second course in the music theory sequence which investigates modes, transposition, cadences and non-harmonic tones, phrase structure, musical textures, and four-part voice leading. Related keyboard and aural skills are covered in corequisite classes. Prerequisite: MUSI 1301 or consent of Instructor. Corequisites: MUSI 1116 and MUSI 1181 or MUSC 1171 with consent of Department Chair. 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 MUSI 1182. Offered in spring semesters only. 3 credit hours.

**MUSI 1386 Introduction to Composition**

Fundamentals of music composition including structural and formal composition techniques, computer-based musical notation, and basic MIDI sequencing. Prerequisite: MUSI 1301. 3 credit hours.

**MUSI 2116 Aural Skills III**

Continuation of MUSI 1117. Aural study of superimposition, singing modulations to closely related keys, melodic and harmonic modulations, and compound intervals. Prerequisite: MUSI 1117. Corequisites: MUSI 2181 and MUSI 2311. 1 credit hour.

*Note: Student may take MUSI 2116 and MUSI 2117 for a combined total of no more than 4 credit hours.*

**MUSI 2117 Aural Skills IV**

Final course in Aural Skills sequence. Singing remote modulations and difficult melodies; aural study of unusual and mixed meters; altered chords: 9th, 11th, and 13th chords. Prerequisite: MUSI 2116. Corequisites: MUSI 2182 and MUSI 2312. 1 credit hour.

*Note: Student may take MUSI 2116 and MUSI 2117 for a combined total of no more than 4 credit hours.*

**MUSI 2159 Musical Theatre Workshop II**

A continuation of Music Theatre Workshop I. Developing advanced techniques in presenting works from the musical theatre repertoire. Prerequisite: DRAM 1161 or MUSI 1159. 1 credit hour.

*Note: Student may take either DRAM 1162 or MUSI 2159 but not both.*

**MUSI 2160 German Diction**

Presents the phonetic sounds of the German language, the principles of which will be applied to required vocal repertoire for transfer music students. Required for voice majors, but open to all students with consent of Instructor. 1 credit hour.



### **MUSI 2161 French Diction**

Presents the phonetic sounds of the French language, the principles of which will be applied to required vocal repertoire for transfer music majors. Required for voice majors, but open to all students with consent of Instructor. 1 credit hour.

### **MUSI 2181 Beginning Piano III**

Continuation of MUSI 1182. Development of three octave scales and arpeggios, accompaniment patterns, intermediate and 20th century piano repertoire, advanced sight reading skills. Lab required. Prerequisite: MUSI 1182. Corequisites: MUSI 2116 and MUSI 2311. 1 credit hour.

*Note: Student may take MUSI 1181, MUSI 1182, MUSI 2181, and MUSI 2182 for a combined total of no more than 4 credit hours.*

### **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 sightreading. Lab required. Prerequisite: MUSI 2181. Corequisites: MUSI 2117 and MUSI 2312. 1 credit hour.

*Note: Student may take MUSI 1181, MUSI 1182, MUSI 2181, and MUSI 2182 for a combined total of no more than 4 credit hours.*

### **MUSI 2183 Class Voice III**

A continuation of the study of the voice concentrating on correct vocal principles in the execution of advanced Dramatic literature. Lab included. Prerequisite: MUSI 1184 or consent of Instructor. Corequisite: MUAP 1181, MUAP 2281, or consent of Instructor. 1 credit hour.

*Note: Student may take MUSI, 1183, MUSI 1184, MUSI 2183, and MUSI 2184 for a combined total of no more than 4 credit hours.*

### **MUSI 2184 Class Voice IV**

An advanced continuation of the study of the voice concentrating on correct vocal principles in the execution of Musical Comedy and/or Opera Buffa/Comique. Lab included. Prerequisite: MUSI 2183, or consent of Instructor. Corequisite: MUAP 1181, MUAP 2281, or consent of Instructor. 1 credit hour.

*Note: Student may take MUSI, 1183, MUSI 1184, MUSI 2183, and MUSI 2184 for a combined total of no more than 4 credit hours.*

### **MUSI 2192 Class Guitar III**

Continuation of MUSI 1193. Development of two and three octave scales, intermediate guitar repertoire from Renaissance to 20th century music. This two-hour course covers chapters 16-26 of Solo Guitar Playing, Vol. 1, by Frederick M. Noad. Prerequisite: MUSI 1193. 1 credit hour.

*Note: Student may take MUSI, 1192, MUSI 1193, MUSI 2192, and MUSI 2193 for a combined total of no more than 4 credit hours.*

### **MUSI 2193 Class Guitar IV**

Final course in sequence of guitar classes. Culmination of skills including completion of major and melodic minor scales, more difficult guitar repertoire, and competency in sight-reading. This two-hour course covers chapters 1-9 of Solo Guitar Playing, Vol. II, by Frederick M. Noad. 1 credit hour.

*Note: Student may take MUSI, 1192, MUSI 1193, MUSI 2192, and MUSI 2193 for a combined total of no more than 4 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 MUSI 2181. 3 credit hours.

### **MUSI 2312 Music Theory IV**

Music theory beginning with the extended harmonies of the Romantic era and continuing through 20th century formal processes and techniques. Related keyboard and aural skills are covered in corequisite classes. Offered spring semesters. Prerequisite: MUSI 2311. Corequisites: MUSI 2117 and MUSI 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***

### **NANO 1301 Introduction to Nanotechnology**

Definition, history, scope, impacts, and challenges within the rapidly emerging and revolutionary field of nanotechnology. Explores nanotechnology's unique applications, production processes, workplace environment, and occupational outlook. 3 credit hours. (W)

### **NURA 1160 Clinical – Nursing Aide and Patient Care Assistant**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. The course includes direct “hands-on” patient care. Direct supervision is provided in a long term care setting by the clinical professional who are Registered Nurses. Prerequisite: Admission to the Certified Nurse Aide Program. Corequisite: NURA 1301 or consent of Program Director. 1 credit hour. (W)

### **NURA 1301 Nurse Aide for Health Care**

Preparation for entry level nursing assistants to achieve a level of knowledge, skills, and abilities essential to provide basic care to patients of long term care and hospital facilities. Topic examples include resident's rights, communication, safety, observation, reporting and assisting patients in maintaining basic comfort and safety. Emphasis is on effective interaction with members of the health care team. Prerequisite: Admission to the Certified Nurse Aide Program. Corequisite: NURA 1160 or consent of Program Director. 3 credit hours. (W)

## ***p***

(P) A student may receive up to 4 credit hours of any combination of PHED course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

### **PHED 1100 Beginning Weight Training**

Introduction to weight training and body building; learn the basic techniques for strength development and cardiovascular conditioning. Various weight machines, free weights and aerobic machines are used to establish an individual fitness program. 1 credit hour. (P)



**PHED 1102 Intermediate Weight Training**

Designed for the individual who has experience in basic weight training skills and wants to increase their knowledge of training techniques and conditioning. 1 credit hour. (P)

**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. (P)

**PHED 1106 Walking and Fitness**

Improve cardiovascular fitness, muscle tone, and flexibility through a vigorous walking and conditioning program. 1 credit hour. (P)

**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. (P)

**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. (P)

**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. (P)

**PHED 1114 Volleyball**

Individual skills and techniques, application of rules and an introduction to offensive and defensive strategies are stressed. 1 credit hour. (P)

**PHED 1115 Archery**

Investigates the basic techniques, rules and scoring as well as the history and terminology of archery. 1 credit hour. (P)

**PHED 1116 Badminton**

History, rules, basic strokes and strategies in singles and doubles play are emphasized through intraclass competition. 1 credit hour. (P)

**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. (P)

**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. 1 credit hour. (P)

**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. (P)

**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. 1 credit hour. (P)

**PHED 1123 Beginning Golf**

Stresses basic skills, history, terminology and scoring of golf. 1 credit hour. (P)

**PHED 1124 Intermediate Golf**

Develops advanced skill techniques and strategies of golf. 1 credit hour. (P)

**PHED 1125 Bowling**

Teaches ball selection, stance, four-step approach, rules, and scoring procedures. Emphasis on game situations. 1 credit hour. (P)

**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. (P)

**PHED 1127 Beginning Karate**

Introduction to basic techniques, formal exercises, and sparring techniques for the beginner. 1 credit hour. (P)

**PHED 1129 Introduction to Hatha Yoga**

Practice of yogic postures, or "asana", defined as the physical positioning that coordinates breathing with moving and holding still for the purpose of both stretching and strengthening parts of the body. 1 credit hour. (P)

**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. 1 credit hour. (P)

**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. (P)

**PHED 1133 Introduction to Racquet Sports**

Introduction to the rules, scoring, and fundamental techniques in the following sport: tennis, badminton, racquetball. Participation will help develop muscular and cardiovascular fitness and hand eye coordination. 1 credit hour. (P)

**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. (P)

**PHED 1137 Swimming Conditioning**

Fitness level is improved through swimming strokes and water exercises. Different swimming programs enhance muscular strength, endurance and cardiovascular fitness. Student should be proficient in basic swimming. Prerequisite: Consent of Instructor. 1 credit hour. (P)

**PHED 1140 Beginning Aerobic Dance**

Aerobic exercise and step training incorporating light weights. Includes interval training, which adds a new variation to aerobic endurance and flexibility. 1 credit hour. (P)

**PHED 1141 Intermediate Aerobic Dance**

Accelerated aerobic exercise incorporating slide, step, kickboxing, hand weights, and floor routines; designed to improve cardiovascular endurance and muscle strength. Prerequisite: PHED 1140 or consent of Instructor. 1 credit hour. (P)

**PHED 1146 Popular Social Dance**

Practice in a variety of contemporary social dances such as: swing, salsa, tango, traditional ballroom, and country-western. 1 credit hour. (P)

**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. (P)

**PHED 1148 Introduction to Team Sports**

Develops the basic skills and strategies through the knowledge of the history, rules, and terminology. Students will participate in game situations. Three of the following activities will be elected for instruction: Basketball, Flag Football, Soccer, Softball, or Volleyball. 1 credit hour. (P)

**PHED 1253 Lifeguard Training**

Skills, methods, and techniques involved in lifesaving and water safety are reviewed. Successful completion leads to American Red Cross Lifesaving Certification. Student must provide documentation that the American Red Cross requirements for Lifeguard Training have been met prior to enrolling in this course. Prerequisite: Consent of Instructor. 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 I**

Introductory course for students interested in sports officiating. Topics include rules and their interpretations, mechanics, skills and techniques of officiating various team sports. The course will cover two of the following sports: flag football, basketball or volleyball. Lab required. 3 credit hours.

**PHED 1309 Sports Officiating II**

Introductory course for students interested in sports officiating. Topics include rules and their interpretations, mechanics, skills and techniques of officiating various team sports. The course will cover baseball, softball and soccer. Lab required. 3 credit hours.

**PHED 1336 Introduction to Sports Management**

The course will introduce basic principles of administration, marketing, management, and operations in relation to the various careers in sports management. An overview of the sports industry will be introduced. 3 credit hours.

**PHED 1337 Leadership and Communication in Sport**

The course will introduce basic principles of leadership, communication, ethics, and marketing in relation to the sport management field and careers in sports. 3 credit hours.

**PHED 1338 Concepts of Physical Fitness and Wellness**

Introduces basic concepts of fitness, nutrition, health promotion, and disease prevention. Gain knowledge to make intelligent choices that contribute to a healthy lifestyle. Incorporates both lecture and physical activity laboratories. 3 credit hours.

**PHED 2255 Water Safety Instruction**

Successful completion allows the student to take the standardized test given by the American Red Cross examiners for certification as a water safety instructor. Student must provide documentation of attaining a level 6 in the American Red Cross Learn to Swim Program, and be at least 17 years old to be eligible to enroll in this course. Prerequisites: Consent of Instructor. 2 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 1316 Eastern Religions**

This course is designed to introduce students to the study of religion in general and to the beliefs and practices of the principal religions of Asia in particular. It will also provide students with a condensed introduction to Asian civilizations as students explore the complex interaction of religion and society in India, China, Southeast Asia, Korea, and Japan. 3 credit hours.

**PHIL 1317 Western Religions**

This course is designed to introduce students to the study of religion in general and to the beliefs and practices of the principal religions of Europe, the Mediterranean Basin, and Western Asia in particular, with special emphasis on Judaism, Christianity, and Islam. 3 credit hours.

**PHIL 2303 Introduction to Logic**

Symbolic and informal logic; emphasis on logical argument, fallacies, inductive and deductive proof, and correct reasoning. 3 credit hours.

**PHIL 2306 Introduction to Ethics**

Traditional theories and problems in the field of moral philosophy. Using seminal works from the history of western philosophical thought, this course examines the meaningfulness of ethical discourse and explores what makes an action right or wrong, good or evil. Includes contemporary issues in light of historical ethics. 3 credit hours.

**PHIL 2307 Introduction to Social and Political Philosophy**

Focuses on the concepts of force, power, and authority as well as on natural rights, justice, education, freedom, and responsibility. 3 credit hours.

**PHIL 2321 Philosophy of Religion**

A critical investigation of important philosophical concerns with respect to religious ideas of faith, such as the existence and nature of God, the problem of evil, and ideas of the sacred and profane. 3 credit hours.

**PHTC 1300 Photo Digital Imaging I**

Computer and software instruction for electronic imaging. Includes color, gray scale, image conversion, presentation, and ethics. Lab required. 3 credit hours. (W)

**PHTC 1311 Fundamentals of Photography/Digital**

An introduction to camera operation and image production, composition, supplemental lighting, and use of exposure meters and filters. Lab required. 3 credit hours. (W)

**PHTC 1325 Photographic Science I**

An examination of the principles and theories governing photography. Emphasis on analysis of problems involving optics, light, chemistry, and math as they pertain to field practices. Tools and methods will utilize the view camera and zone system. Lab required. Prerequisite: ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 1341 Color Photography I**

Examination of color theory as it applies to photography. Emphasis on color concepts and the intricacies of seeing and photographing in color. Lab required. Prerequisite: ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 1343 Expressive Photography**

A study of formal, professional, and individual uses of photography by applying photographic technology to personalized needs. Emphasis on creative visual thinking and problem solving and the exploration of personal vision. Lab required. Prerequisite: ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 1345 Illustrative Photography I**

Instruction in the technical aspects involved in commercial photography. Topics include lighting equipment, techniques of production photography, reproduction principles, illustrative techniques, and advertising. Lab required. 3 credit hours. (W)

**PHTC 1347 Landscape Photography**

Skill development in the inspection of the landscape visually and photographically utilizing various camera formats. Topics include exploration of historic, geographical, and cultural locations, and review of landscape photographers. Lab required. Prerequisite: ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 1351 Photojournalism I**

Presentation of photographic techniques used by photojournalists in newspapers, magazines, and trade publications including news, feature, sports, editorial portraits, and photo essays. Includes a study of layout design and the freelance market. Lab required. Prerequisite: ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 1353 Portraiture I**

Photographic principles applied to portrait lighting, posing, printing and subject rapport. This is a foundation course in photographic portraiture. Assignments are designed to provide both aesthetic challenges as well as comprehensive studio technique. All students must participate in class demos and stick close to prescribed procedures on assignments in order to maintain studio privileges. There will be a mixture of color and black and white materials used, with accent on studio time rather than darkroom or computer time. Lab required. Prerequisite: ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 2301 Intermediate Photography**

Continuation of "Fundamentals of Photography." Emphasizes social, portrait, studio, fashion, theatrical, publicity, and event photography. Lab required. Prerequisite: ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 2331 Architectural Photography**

Study of the equipment, processes, and procedures necessary for the photography of building exteriors and interiors, dusk/night and night architectural landscapes, and construction progress. Lab required. Prerequisite: ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 2340 Photographic Studio Management**

Photography business management, pricing, market analysis, promotion, networking, job acquisition, and photographic equipment analysis. Lab required. 3 credit hours. (W)

**PHTC 2341 Color Photography II**

Skill development in advanced color image production. Emphasis on use of specialized color techniques and applications. Lab required. Prerequisite: PHTC 1300. 3 credit hours. (W)

**PHTC 2342 Fashion Photography**

Fashion photography in terms of trends and techniques included in studio and location work. Emphasizes model direction and lighting control. Lab required. Prerequisites: ARTS 2356, or PHTC 1311. 3 credit hours. (W)

**PHTC 2349 Photo Digital Imaging II**

Continued skill development in the use of the computer and software for photographic manipulation and output. Lab required. Prerequisite: PHTC 1300. 3 credit hours. (W)

**PHTC 2353 Portraiture II**

A continuation of the study of principles of effective portraiture with specific emphasis on unique presentation and environmental and location studies. Lab required. Prerequisite: PHTC 1353. 3 credit hours. (W)

**PHYS 1401 General Physics I\***

Algebra-based physics course for the science major in areas of biology, medicine, and pharmacy. Includes laws of motion of objects, heat, work and energy, and sound. Lab required. Prerequisites: High school pre-calculus or equivalent within the last five years with a grade of "C" or better. 4 credit hours.

*\*This course is included in the Center for Advanced Study In Mathematics and Natural Sciences (CASMNS) program. Please see page 75 for further information.*

**PHYS 1402 General Physics II\***

A continuation of Physics 1401. Includes electricity, magnetism, light, optics, relativity and atomic physics. Lab required. Prerequisite: PHYS 1401 within the last five years with a grade of "C" or better. 4 credit hours.

*\*This course is included in the Center for Advanced Study In Mathematics and Natural Sciences (CASMNS) program. Please see page 75 for further information.*

**PHYS 1403 Stars and Galaxies**

Introduction to stars and galaxies; basic tools and concepts in astronomy and physics are discussed. Subjects studied include stellar evolution, supernovae, black holes, neutron stars, galaxies, and quasars. Laboratory exercises, night observations, planetarium and observatory visits combine to enhance lecture material. Lab required. 4 credit hours.



### **PHYS 1404 Solar System**

Introduction to the solar system; basic tools and concepts in astronomy and physics are discussed. Subjects studied include planets, moons, asteroids, comets, solar system formation, and solar system exploration. Laboratory exercises, night observations, planetarium and observatory visits combine to enhance lecture material. Lab required. 4 credit hours.

### **PHYS 1405 Conceptual Physics**

This course is a non-mathematical presentation of the elements of classical and modern physics. Emphasizes the understanding of concepts rather than the development of computational skills. There are no math or science prerequisites. What students should bring to this course is curiosity about how the world works. Intended for liberal arts and other non-science majors. Lab required. 4 credit hours.

### **PHYS 1410 Physics of Music and Sound**

This course is a study of the physics governing production, transmission and perception of sound. The focus is on the physical characteristics of sound, as well as the basic physical relationships that govern all vibrations and waves. We will also consider how sound is affected by the environment (acoustics) and how sound is physically and physiologically perceived. Laboratory exercises and classroom demonstrations combine to enhance lecture material. Lab required. 4 credit hours.

### **PHYS 1415 Physical Science I**

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. 4 credit hours.

### **PHYS 2389 Academic Co-op Physics**

Integrates on-campus study with practical hands-on work experience in physics. In conjunction with class seminars, the student will set specific goals and objectives in the study of physics. Contact the Cooperative Work Experience Office. 3 credit hours.

### **PHYS 2425 University Physics I\***

A calculus-based analysis of classical physics for science majors in fields such as physics, computer science and engineering. Includes laws of motion, force, momentum, work and energy, angular momentum, and rotational and oscillatory motion. Lab required. Prerequisite: MATH 2413 within the last five years with a grade of "C" or better. Prerequisite/concurrent enrollment: MATH 2414. 4 credit hours.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Please see page 75 for further information.*

### **PHYS 2426 University Physics II\***

Addresses electric fields, AC and DC currents, dielectrics, magnetic fields, magnetic properties of matter, inductance, electromagnetism, properties of waves and optics. Lab required. Prerequisites: MATH 2414 and PHYS 2425 within the last five years with a grade of "C" or better. 4 credit hours.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Please see page 75 for further information.*

### **POFI 1301 Computer Applications I – MS Word Productivity**

Overview of computer office applications including current terminology and technology. Introduction to computer hardware,

software applications, and procedures. Prerequisite: POFT 2301 or consent of Department Faculty Contact. 3 credit hours. (W)

### **POFI 2301 Word Processing – MS Word**

Word processing software focusing on business applications. Prerequisite: POFT 1329 or POFT 2301 or consent of Department Faculty Contact. 3 credit hours. (W)

### **POFI 2331 Desktop Publishing – MS Office**

In-depth coverage of desktop publishing terminology, text editing, and use of design principles. Emphasis on layout techniques, graphics, multiple page displays, and business applications. Prerequisite: POFI 2301 or consent of Department Faculty Contact. 3 credit hours. (W)

### **POFL 1359 Legal Transcription**

Comprehensive legal vocabulary. Includes organizing and transcribing documents in a law office. Prerequisite: POFI 2301 or POFT 2301 or consent of Department Faculty Contact. 3 credit hours. (W)

### **POFL 1380 Cooperative Education – Legal Administrative Assistant/Secretary**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Department Faculty Contact. 3 credit hours. (W)

### **POFM 1300 Medical Coding Basics**

Presentation and application of basic coding rules, principles, guidelines, and conventions utilizing various coding systems. Lab required. Prerequisite: POFT 1127 and SRGT 1301, or consent of Program Director. 3 credit hours. (W)

### **POFM 1380 Cooperative Education – Medical Administrative/Executive Assistant and Medical Secretary**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Department Faculty Contact. 3 credit hours. (W)

### **POFT 1127 Introduction to Keyboarding**

Skill development in keyboarding with emphasis on alphabet, number, and symbol keys by touch. Skills can be applied to computers, typewriters, and other equipment with keyboards. 1 credit hour. (W)

### **POFT 1307 Proofreading and Editing**

Instruction in proofreading and editing skills necessary to assure accuracy in business documents. Prerequisite: POFT 1127 or POFT 1329 or POFT 2301 or consent of Department Faculty Contact. 3 credit hours. (W)

### **POFT 1319 Records and Information Management I**

Introduction to basic records and information management. Includes the life cycle of a record, manual and electronic records management, and basic filing procedures and rules. Prerequisite: POFT 1127 or POFT 1329 or POFT 2301 or consent of Department Faculty Contact. 3 credit hours. (W)



**POFT 1329 Beginning Keyboarding**

Skill development in the operation of the keyboard by touch applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. Beginning course for students with no previous typing/keyboarding instruction. 3 credit hours. (W)

**POFT 1349 Administrative Office Procedures II**

In-depth coverage of office applications with special emphasis on decision making, goal setting, management theories, and critical thinking. To be completed during the last semester of the Office Systems Technology degree or certificate. Prerequisite: Consent of Department Faculty Contact. 3 credit hours. (W)

**POFT 1380 Cooperative Education – Administrative Assistant and Secretarial Science, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Department Faculty Contact. 3 credit hours. (W)

**POFT 2203 Speed and Accuracy Building**

Review, correct, improve, and/or perfect touch keyboarding techniques for the purpose of increasing speed and improving accuracy. This course may be repeated for credit. Prerequisite: POFT 1127 or POFT 1329 or POFT 2301 or consent of Department Faculty Contact. 2 credit hours. (W)

**POFT 2301 Intermediate Keyboarding**

A continuation of keyboarding skills in document formatting, emphasizing speed and accuracy. Emphasis on proofreading, editing, and following instructions, and keying documents from various copy. Prerequisite: POFT 1329 or consent of Department Faculty Contact. 3 credit hours. (W)

**POFT 2312 Business Correspondence and Communication**

Development of writing and presentation skills to produce effective business communications. Prerequisite: POFT 1301 or POFT 2301 or POFT 1329 or POFT 2301 or consent of Department Faculty Contact. 3 credit hours. (W)

**POFT 2380 Cooperative Education – Administrative Assistant and Secretarial Science, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Department Faculty Contact. 3 credit hours. (W)

**PSTR 1301 Fundamentals of Baking**

Fundamentals of baking including dough, quick breads, pies, cakes, cookies, tarts, and doughnuts. Instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products. Professional chef uniform and kitchen tools required. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

**PSTR 1340 Plated Desserts**

Preparation and service of hot and cold desserts with a focus on individual desserts, a la minute preparations, and numerous components within one preparation. Emphasis on station organization, timing, and service coordination for restaurant dessert production. Professional chef uniform and kitchen tools required. Prerequisite: PSTR 1301 or consent of Instructor or Department Chair. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

**PSTR 1380 Cooperative Education – Baking and Pastry Arts/ Baker/Pastry Chef**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. 3 credit hours. (W)

**PSTR 2331 Advanced Pastry Shop**

A study of classical desserts, French and international pastries, hot and cold desserts, ice creams and ices, chocolate work, and decorations. Emphasis on advanced techniques. Professional chef uniform and kitchen tools required. Prerequisite: PSTR 1301 or consent of Instructor or Department Chair. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

**PSYC 2301 General Psychology**

Introduction to scientific psychology as applied to human behavior, including research methods, physiological factors, learning, motivation, emotions, personality, adjustment, stress, psychological disorders and therapies. These principles will be applied to the human experience. 3 credit hours.

**PSYC 2302 Applied Psychology**

Application of psychological principles to human relations issues in organizational settings. Emphasis on self-understanding, interpersonal relations, and career development. 3 credit hours.

**PSYC 2306 Human Sexuality**

Understanding of human sexuality – includes an appreciation of different approaches to sexuality as well as an awareness of one's own sexuality and its impact on adjustment to life. 3 credit hours.

*Note: Students may take either PSYC 2306 or SOCI 2306 but not both.*

**PSYC 2314 Life Span Psychology**

A life-span approach to human development – studies the processes of life from conception through adulthood and aging. Includes physical, cognitive, and psychosocial aspects of human growth, development and behavior. These principles will be applied to daily lifestyles. Prerequisite: PSYC 2301. 3 credit hours.

**PSYC 2315 Psychology of Adjustment**

Gives students deeper insight into their lives and those around them. Includes enhancing self awareness, stress coping, healthy relationships and dealing with loss. 3 credit hours.

**PSYC 2316 Psychology of Personality**

In-depth study of theories of personality with practical application of each. Methods of personality measurement and assessment are also included. Prerequisite: PSYC 2301. 3 credit hours.

### **PSYC 2319 Social Psychology**

Research and theory regarding social factors that influence human behavior. Focuses on attitudes, interpersonal attraction, aggression, conformity, communication, values, roles and group processes. These principles will be applied to the human experience. 3 credit hours.

### **PSYC 2371 Death and Dying**

This course will explore the social, emotional, and cognitive processes involved in our understanding and acceptance of death and dying. A cross-cultural perspective of these issues will be presented. Topics discussed include the grief and loss, death coping across the life-span, social and institutional contexts of death, hospice alternatives, funerals and wills, organ donation, and ways to help both dying persons and survivors cope. 3 credit hours.

### **PSYC 2372 Abnormal Psychology**

An introduction to the study of abnormal behavior. The course focuses on the causes, symptoms, assessment and treatment of mental disorders, with emphasis on contemporary issues regarding the nature of mental disorders. Prerequisite: PSYC 2301. 3 credit hours.

### **PSYC 2389 Academic Co-op Psychology**

Integrates on-campus study with practical hands-on work experience in psychology. In conjunction with class seminars, the student will set specific goals and objectives in the study of psychology. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Instructor. 3 credit hours.

## **R**

### **RBTC 1305 Robotic Fundamentals**

An introduction to flexible automation. Topics include installation, repair, maintenance, and development of flexible robotic manufacturing systems. 3 credit hours. (W)

### **READ 0300 Developmental Reading I**

Raises the reading level of students through the acquisition of basic vocabulary and comprehension skills. Lab included. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree Developmental courses may be taken for a combined total of no more than 27 credit hours.*

### **READ 0305 Developmental Reading II**

Offers additional instruction in developing vocabulary and comprehension skills. Effective study skills are introduced. Lab included. Prerequisite: READ 0300. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree Developmental courses may be taken for a combined total of no more than 27 credit hours.*

### **READ 0310 Developmental Reading III**

Seeks to further improve students' vocabulary, comprehension and study skills. Lab included. Prerequisite: READ 0305. 3 credit hours.

*Note: May not be used to satisfy the requirements of an associate degree Developmental courses may be taken for a combined total of no more than 27 credit hours.*

### **RELE 1301 Principles of Real Estate I**

Overview of licensing as a real estate broker or salesperson. Includes ethics of practice as a license holder, titles to and

conveyance of real estate, legal descriptions, deeds, encumbrances and liens, distinctions between personal and real property, appraisal, finance and regulations, closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. Fulfills at least 30 of 60 hours of required instruction for salesperson license. 3 credit hours. (W)

### **RELE 1303 Real Estate Appraisal**

A study of the central purposes and functions of an appraisal, social and economic determinants of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting. 3 credit hours. (W)

### **RELE 1307 Real Estate Investments**

Characteristics of real estate investments. Includes techniques of investment analysis, time-valued money, discounted and nondiscounted investment criteria, leverage, tax shelters, depreciation, and applications to property tax. 3 credit hours. (W)

### **RELE 1309 Real Estate Law**

Provides a study of legal concepts of real estate, land description, real property rights, estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of title. 3 credit hours. (W)

### **RELE 1311 Law of Contracts**

Elements of a contract, offer and acceptance, the statute of frauds, specific performance and remedies for breach, unauthorized practice of law, commission rules relating to use of adopted forms and owner disclosure requirements. 3 credit hours. (W)

### **RELE 1315 Property Management**

A study of the role of the property manager, landlord policies, operational guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act. 3 credit hours. (W)

### **RELE 1319 Real Estate Finance**

An overview of monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative financial instruments, equal credit opportunity laws affecting mortgage lending and the state housing agency. 3 credit hours. (W)

### **RELE 1321 Real Estate Marketing**

A study of real estate professionalism and ethics: characteristics of successful salespersons, time management, psychology of marketing, listing procedures, advertising, negotiating and closing financing, and the Deceptive Trade Practice Act. 3 credit hours. (W)

### **RELE 1325 Real Estate Mathematics**

Basic arithmetic skills. Includes mathematical logic, percentages, interest, time value of money, depreciation, amortization, proration, and estimation of closing statements. 3 credit hours. (W)

### **RELE 1327 Real Estate Commercial Appraisal**

Principles and techniques used in the valuation of commercial property. Topics include purposes and functions of an appraisal, social and economic forces affecting value, appraisal case studies, cost, and income approaches to value. 3 credit hours. (W)

**RELE 1338 Principles of Real Estate II**

Overview of licensing as a broker or salesperson. Includes ethics of practice as a license holder, titles to and conveyance of real estate, legal descriptions, deeds, encumbrances and liens, distinctions between personal and real property, appraisal, finance and regulations, closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing, discrimination, housing credit discrimination, and community reinvestment. Fulfills at least 30 of 60 hours of required instruction for salesperson license. 3 credit hours. (W)

**RELE 1380 Cooperative Education – Real Estate**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**RELE 2301 Law of Agency**

A study of law of agency including principal-agent and master-servant relationships, the authority of an agent, the termination of an agent's authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying procedures, and the disclosure of an agent. 3 credit hours. (W)

**RELE 2331 Real Estate Brokerage**

A study of law of agency, planning and organization, operational policies and procedures, recruiting, selection and training of personnel, records and control, and real estate firm analysis and expansion criteria. 3 credit hours. (W)

**RELE 2381 Cooperative Education – Real Estate**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**RNSG 1219 Integrated Nursing Skills I**

Study of the concepts and principles essential for demonstrating competence in the performance of basic nursing skills for care of diverse clients across the lifespan. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Focus will be on assessment, critical thinking, performance, and teaching/learning needs associated with fundamental skills and procedures and communication/documentation of nursing care. Prerequisite: Admission to the Associate Degree Nursing Program. Corequisites: RNSG 1360 and RNSG 1523, or consent of Program Director. 2 credit hours.

**RNSG 1227 Transition from Vocation/Paramedic to Professional Nursing**

Study of the differences in the role of a Licensed Vocational Nurse or Paramedic with a Registered Nurse. Topics include health promotion, expanded assessment, analysis of data, nursing process, pharmacology, multidisciplinary teamwork, communication, and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework throughout the lifespan. Prerequisite: Consent of Program Director. 2 credit hours. (W)

**RNSG 1229 Integrated Nursing Skills II**

Study of the concepts and principles necessary to perform intermediate or advanced nursing skills for care of diverse clients across the lifespan. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Focus on concepts and principles required to competently perform safe, intermediate nursing skills for diverse client systems across the lifespan in a caring environment. Requires ability to accurately communicate skills/procedures rendered, client teaching, client responses and outcomes in both written and verbal venues. Prerequisites: RNSG 1219, RNSG 1360, and RNSG 1523, or consent of Program Director. Corequisite: RNSG 1461 (or RNSG 1361) and RNSG 2504, or consent of Program Director.

**RNSG 1360 Clinical I – Nursing – Registered Nurse Training**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. With the course focus being on the understanding and application of the nursing process, the student will develop nursing care plans, identify client systems teaching/learning needs, utilize independent, caring nursing interventions, and therapeutic communication to meet the basic client needs and appropriately record client information and care. Prerequisite: Admission to the Associate Degree Nursing Program. Corequisites: RNSG 1219 and RNSG 1523, or consent of Program Director.

**RNSG 1461 Clinical II – Nursing – Registered Nurse Training**

*Formerly RNSG 1361*

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical experiences are unpaid external learning experiences. The course will focus on application of critical thinking skills and implementation of the nursing process to plan care for client systems with common physiologic and psychosocial health needs/problems in the structured care setting. Care will include measures to meet client systems teaching/learning needs, using therapeutic communication to improve client compliance with therapeutic wholistic plan of care in a caring environment. Course requires communication/documentation utilizing appropriate nursing terminology and analysis of client. Prerequisites: RNSG 1219, RNSG 1360 and RNSG 1523, or consent of Program Director. Corequisites: RNSG 1229 and RNSG 2504, or consent of Program Director.

**RNSG 1523 Introduction to Professional Nursing for Integrated Programs**

Introduction to the profession of nursing including the roles of the registered nurse with emphasis on health promotion and primary disease prevention across the lifespan; essential components of the nursing health assessment; identification of deviations from expected health patterns; the application of a systematic, problem-solving process to provide basic nursing care to diverse clients across the lifespan; and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. Special emphasis will be placed on the understanding and application of the nursing process, developing critical thinking skills, and basic caring interventions to meet basic physiologic client needs. Prerequisite: Admission to the Associate Degree Nursing Program. Corequisites: RNSG 1219 and RNSG 1360, or consent of Program Director. 5 credit hours.



**RNSG 2207 Transition to Nursing Practice**

Introduction to selected concepts related to the role of the professional nurse as a provider of care, coordinator of care, and member of the profession. Review of trends and issues impacting nursing and health care today and in the future. Topics include knowledge, judgment, skill, and professional values within a legal/ethical framework. Focus on multifaceted factors impacting nursing care, primary, secondary, and tertiary health outcomes for diverse client systems across the wellness-illness continuum in a variety of settings within hospital and community and the changing healthcare environment. Prerequisites: RNSG 1219, RNSG 1229, RNSG 1360, RNSG 1461 (or RNSG 1361), RNSG 1523, RNSG 2460, RNSG 2504, and RNSG 2514. Corequisites: RNSG 2535, and RNSG 2561, or consent of Program Director. (W)

**RNSG 2460 Clinical III – Nursing – Registered Nurse Training**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. The course will focus on application of critical thinking skills and implementation of the nursing process to plan care for client systems with complex physiologic and psychosocial health needs/problems in the structured care setting. Care will include measures to meet client systems teaching/learning needs, using therapeutic communication to improve client compliance with the therapeutic wholistic plan of care in a caring environment. Course requires communication/documentation utilizing appropriate nursing terminology and analysis of client(s). Prerequisites: RNSG 1219, RNSG 1229, RNSG 1360, RNSG 1461 (or RNSG 1361), RNSG 1523, and RNSG 2504. Corequisite: RNSG 2514 or consent of Program Director.

**RNSG 2504 Integrated Care of the Client with Common Health Care Needs**

Through the application of a systematic problem-solving process and critical thinking skills to provide nursing care to diverse clients/families across the lifespan with common health care needs including, but not limited to, common childhood/adolescent diseases, uncomplicated perinatal care, mental health concepts, perioperative care, frequently occurring adult health problems and health issues related to aging. Emphasis on secondary disease prevention and collaboration with members of the multidisciplinary healthcare team. Content includes applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework facilitating the student's advancement in the role/competencies as a Provider of Care. Prerequisites: RNSG 1219, RNSG 1360, and RNSG 1523. Corequisites: RNSG 1229 and RNSG 1461 (or RNSG 1361), or consent of Program Director.

**RNSG 2514 Integrated Care of the Client with Complex Health Care Needs**

Application of a systematic problem-solving process and critical thinking skills to provide comprehensive nursing care to diverse clients/families across the lifespan with complex healthcare needs including, but not limited to, complex childhood/adolescent diseases, complicated perinatal care, acute mental illness, complex perioperative care, serious adult health problems and health issues related to aging. Emphasis on tertiary disease prevention, health maintenance/restoration and collaboration with members of the multidisciplinary healthcare team. Topics include the role of the nurse as client advocate and coordinator of care and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework.

Focus on utilization of the nursing process to evaluate, analyze nursing care provided, with modifications to care to better meet individual client needs. Prerequisites: RNSG 1219, RNSG 1229, RNSG 1360, RNSG 1461 (or RNSG 1361), RNSG 1523, and RNSG 2504. Corequisite: RNSG 2460, or consent of Program Director. 5 credit hours.

**RNSG 2535 Integrated Client Care Management**

Application of client assessment skills, critical thinking, and independent nursing interventions to care for diverse clients/families throughout the lifespan whose healthcare needs may be difficult to predict. Emphasis on collaborative clinical decision-making, nursing leadership skills, and client management. Topics include the significance of professional development, trends in nursing and healthcare, and applicable knowledge, judgment, skills, and professional values within a legal/ethical framework. Course stresses implementation, analysis, and adaptation nursing care for client systems with advanced and integrated health needs/problems including their teaching/learning needs and transition into the role/competencies of the professional nurse. Prerequisites: RNSG 1219, RNSG 1229, RNSG 1360, RNSG 1461 (or RNSG 1361), RNSG 1523, RNSG 2461, RNSG 2504, and RNSG 2514. Corequisites: RNSG 2207 and RNSG 2561, or consent of Program Director. (W)

**RNSG 2561 Clinical IV – Nursing – Registered Nurse Training**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Course focuses on transition for student nurse to the roles/competencies of the professional nurse utilizing nursing process to meet the advanced and integrated health needs of the client systems within hospital and community. Direct supervision is provided by the clinical professional and is an unpaid clinical experience. Prerequisites: RNSG 1360, RNSG 1461 (or RNSG 1361), RNSG 2460 and RNSG 2514. Corequisites: RNSG 2207 and RNSG 2535, or consent of Program Director.

**RSPT 1160 Clinical I – Respiratory Care Therapy/Therapist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student at the clinical site. Prerequisite: Consent of Program Director. Corequisite: Consent of Program Director. 1 credit hour. (W)

**RSPT 1201 Introduction to Respiratory Care**

An introduction to the field of respiratory care. Topics include the history of respiratory care, hospital organization, medical malpractice, ethics, vital signs, body mechanics, basic cardiopulmonary assessment, infection control, and cardiopulmonary resuscitation (CPR). Includes instruction in medical terminology. Lab required. Prerequisite: Admission to the Respiratory Care Program. 2 credit hours. (W)

**RSPT 1307 Cardiopulmonary Anatomy and Physiology**

An introduction to the anatomy and physiology of the cardiovascular and pulmonary systems. Lab required. Prerequisite: Admission to the Respiratory Care Program. 3 credit hours. (W)

**RSPT 1361 Clinical II – Respiratory Care Therapy/Therapist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1160. 3 credit hours. (W)



**RSPT 1362 Clinical III – Respiratory Care Therapy/Therapist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1361. 3 credit hours. (W)

**RSPT 1410 Respiratory Care Procedures I**

Provides students with the essential knowledge of the equipment and techniques used in the treatment of pulmonary disease and their clinical application. The following areas are discussed in depth: oxygen therapy, humidity and aerosol therapy, hyperinflation therapy, chest physiotherapy, pulse oximetry, arterial puncture, and interpretation. Lab required. Prerequisite: Admission to the Respiratory Care Program. 4 credit hours. (W)

**RSPT 1411 Respiratory Care Procedures II**

Provides students with essential knowledge of airway care and mechanical ventilation. Airway care includes indications, techniques, equipment, and hazards and complications. Mechanical ventilation includes indications, initiation, modes, clinical application, management, complications, and weaning. Lab required. Prerequisite: RSPT 1410. 4 credit hours. (W)

**RSPT 1471 Respiratory Care Procedures III**

An introduction to ECG monitoring, neonatal assessment, and infant mechanical ventilation. This course will include material on specialized modes of ventilation chest drainage systems, critical care assessment, and chest trauma. Lab required. Prerequisite: RSPT 1411. 4 credit hours. (W)

**RSPT 2139 Advanced Cardiac Life Support**

A comprehensive course designed to develop the cognitive and psychomotor skills necessary for resuscitation of the adult. Includes strategies for managing and stabilizing the cardiopulmonary arrested patient. May include certification. Lab required. Prerequisite: Consent of Program Director. 1 credit hour. (W)

**RSPT 2231 Simulations in Respiratory Care**

Theory and history of clinical simulation examinations. Includes construction types, scoring, and mechanics of taking the computerized simulation examination. Lab required. Prerequisite: RSPT 2355. 2 credit hours. (W)

**RSPT 2247 Specialties in Respiratory Care**

Emerging and specialty practices in respiratory care. An introduction to areas of interest in which the Respiratory Therapist may find application and/or employment. The depth of instruction will provide the indications, expected outcomes, hazards and methods for hyperbaric oxygen (HBO), extracorporeal membrane oxygenation (ECMO), nitric oxide (NO), sleep studies, nutritional assessment, metabolic monitoring, exercise/stress testing, and electroencephalograms. Also includes home care/rehabilitation, and fluid and electrolyte balance. Prerequisite: RSPT 2453. 2 credit hours. (W)

**RSPT 2310 Cardiopulmonary Disease**

A discussion of pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. Also includes the performance and evaluation of pulmonary function testing. Lab required. Prerequisite: RSPT 1307. 3 credit hours. (W)

**RSPT 2317 Respiratory Care Pharmacology**

A study of pharmacological principles/practices of drugs which affect the cardiopulmonary systems. Emphasis on classification, route of administration, dosages/calculations, and physiological interactions. Prerequisite: RSPT 1201. 3 credit hours. (W)

**RSPT 2355 Critical Care Monitoring**

Advanced monitoring techniques used clinically to assess a patient in the critical care setting. Prerequisite: RSPT 1471. 3 credit hours. (W)

**RSPT 2360 Clinical IV – Respiratory Care Therapy/Therapist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1362. 3 credit hours. (W)

**RSPT 2361 Clinical V – Respiratory Care Therapy/Therapist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 2360. Corequisite: BIOL 2421 or consent of Program Director. 3 credit hours. (W)

**RSPT 2453 Neonatal/Pediatric Cardiopulmonary Care**

Advanced concepts of acute care, monitoring, and management as applied to the neonatal and pediatric patient. Lab required. Prerequisite: RSPT 1471. 4 credit hours. (W)

**RSTO 1301 Beverage Management**

A study of the beverage service of the hospitality industry including spirits, wines, beers, and non alcoholic beverages. Topics include purchasing, resource control, legislation, marketing, physical plant requirements, staffing, service, and the selection of wines to enhance foods. Students must be 21 years of age to take this course. 3 credit hours. (W)

**RSTO 1304 Dining Room Service**

Introduces the principles, concepts, and systems of professional table service. Topics include dining room organization, scheduling, and management of food service personnel. Prerequisite/concurrent enrollment: CHEF 1314. 3 credit hours. (W)

*Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

**RSTO 1325 Purchasing for Hospitality Operations**

Study of purchasing and inventory management of foods and other supplies to include development of purchase specifications, determination of order quantities, formal and informal price comparisons, proper receiving procedures, storage management, and issue procedures. Emphasis on product cost analysis, yields, pricing formulas, controls, and record keeping at each stage of the purchasing cycle. 3 credit hours. (W)

**RSTO 1380 Cooperative Education – Food and Beverage/Restaurant Operations Manager**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **RUSS 1411 Beginning Russian I**

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Russian culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, computer software, and video cassettes. 4 credit hours.

### **RUSS 1412 Beginning Russian II**

Continuation of RUSS 1411. Prerequisite: RUSS 1411 or consent of Instructor or Department Chair. 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 consent of Instructor or Department Chair. 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 consent of Instructor or Department Chair. 3 credit hours.

## **S**

### **SGNL 1401 American Sign Language (ASL): Beginning I**

Introduction to American Sign Language, Deaf culture, and to a brief history of sign and culture. Includes development of expressive and receptive sign skills, together with the learning of numbers, sign vocabulary, and the manual alphabet. Class is conducted primarily without voice. Lab required. 4 credit hours.

### **SGNL 1402 American Sign Language (ASL): Beginning II**

Study of sign vocabulary, numbers, fingerspelling and Deaf culture. Emphasizes further development of receptive skills, expressive skills, application of rudimentary syntactical and grammatical structures, and an understanding of Deaf and Hearing cultures. Class is conducted primarily without voice. Lab required. Prerequisite: SGNL 1401 or credit by exam. 4 credit hours.

### **SGNL 2301 American Sign Language (ASL): Intermediate I**

Includes the integration of ASL expressive and receptive skills using bilingual techniques. Also includes a study of vocabulary, idioms, culture, ASL linguistics, manual and non-manual aspects of ASL, and cross-cultural communication techniques. Highly interactive, centering on lab exercises, peer critiques, guest lectures, and on the application of basic ethical behavior. Class is conducted primarily without voice. Lab required. Prerequisite: SGNL 1402 or credit by exam. 3 credit hours.

### **SGNL 2302 American Sign Language (ASL): Intermediate II**

Continuation of SGNL 2301; further application of introductory level interpreting and transliterating skills with appropriate RID guidelines governing ethical behavior. Provides students the opportunity to interpret for guest speakers. Class is conducted primarily without voice. Lab required. Prerequisite: SGNL 2301 or credit by exam. 3 credit hours.

### **SLNG 1311 Fingerspelling and Numbers**

Development of expressive and receptive skills in fingerspelling and numbers. Receptive skills focus on whole word phrase recognition and fingerspelling/number comprehension in context. Expressive skills focus on the development of speed, clarity, and fluency. Through classroom and lab experience, this course

will focus on the 26 hand configurations of the manual alphabet, numbers, and Fingerspelled Loan Signs. Additional receptive and expressive skill building for students to recognize: cardinal numbers, ordinal numbers, transitional handshapes, fractions, mathematical functions, monetary designations, time, age, and counting; as well as proper formation, placement, positioning, rhythm, and transitions of fingerspelled handshapes, states and cities and related fingerspelling theories and methodologies. This course is conducted primarily without voice. Lab required. Prerequisite/concurrent enrollment: SGNL 1402. 3 credit hours. (W)

### **SLNG 1321 Introduction to the Interpreting Profession**

An overview of the field of American Sign Language (ASL)/English interpretation. Provides a historical framework for the principles, ethics, roles, responsibilities, and standard practices of the interpreting profession. Lab required. Prerequisite/concurrent enrollment: SGNL 2302. 3 credit hours. (W)

### **SLNG 1391 Special Topics in Sign Language Interpreter**

Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Lab required. 3 credit hours. (W)

#### **Classifier Use for Interpreters**

This course addresses the use of classifiers, a complex grammatical feature in ASL. Many interpreters and interpreting students have difficulty with this grammatical feature in their interpreting since there is no equivalent in spoken English. Classifiers will be defined and categorized. Students will apply what they have learned by practicing translation and interpretation activities. Practice texts will be used for students to develop increased skills in listening and visualization techniques. Emphasis will be given to listening for linguistic cues that trigger classifier use in an interpreted text. Prerequisite: SLNG 2301 or state or national interpreter certification.

### **SLNG 1447 Deaf Culture**

Historical and contemporary perspective of American Deaf culture using a socio-cultural model. Includes cultural identity and awareness, values, group norms, communication, language, and significant contributions made by D/deaf people to the world. Different views and theories will be introduced including developmental issues examined through psychological and sociocultural perspectives. Educational, social, and political factors unique to the Deaf community will be explored, as well as community organizations, impact of technology, and emerging issues/trends or advocacy within the Deaf community. This course is an introduction to the American Deaf Culture and components of the Deaf community. 4 credit hours. (W)

### **SLNG 2266 Practicum I – Sign Language Interpretation and Translation**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: SLNG 2301. 2 credit hours. (W)

### **SLNG 2267 Practicum II – Sign Language Interpretation and Translation**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: SLNG 2266 and SLNG 2311 or SLNG 2331. 2 credit hours. (W)

**SLNG 2301 Interpreting I**

An overview of the interpreting process and models of interpretation. Introduces the skills necessary to achieve dynamic message equivalence in interpreting American Sign Language (ASL) to English and English to ASL. This course focuses on skills building and developing fluency in interpreting. Continuing to incorporate and add to information from SLNG 1321 such as the physical and mental requirements of interpreting, the TX DARS/ODHHS/BEI and National RID Professional Code of Conduct, and general business practices. Includes methods and techniques of interpreting through practical application by using role-plays. Continued focus on the differences between interpreting and transliterating and various special settings. This class is conducted with and without voice. Lab required. Prerequisite: SLNG 1321. 3 credit hours. (W)

**SLNG 2311 Interpreting in Specialized Settings**

Overview of interpreting/transliterating with special populations (e.g., deaf/blind, high visual, oral) and/or special settings (e.g., religious, artistic, medical, legal, mental health). Reinforces interpreting theories and techniques in relation to the special population(s) and/or setting(s). This course includes special settings such as educational, mental health, medical, legal, employment-related, artistic and platform interpreting. 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: SLNG 2301. 3 credit hours. (W)

**SLNG 2331 Interpreting III**

A practice-oriented course to strengthen skills in the integration and application of interpreting using complex source materials. Continued exposure to simulated interpreting/transliterating experiences. The course will develop voicing skills with a focus on chunking, dynamic equivalence, word selection, register, receptive skills, proper location of voice interpreters, team interpreting, the use of a CDI, and other aspects of voicing. Special requirements of voice interpreting will also be included, such as methods and techniques of voice-overs, voicing for Deaf individuals who use ASL, as well as Deaf individuals who may not use ASL. Lab required. Prerequisite: SLNG 2301 or SLNG 2311, or state or national interpreter certification. 3 credit hours. (W)

**SMFT 1343 Semiconductor Manufacturing Technology I**

A study of the processes, materials, and equipment used in the manufacturing of semiconductors, including an overview of the semiconductor industry, related terminology, and standard safety practice. Lab required. 3 credit hours. (W)

**SMFT 2343 Semiconductor Manufacturing Technology II**

The continuation of Semiconductor Manufacturing Technology I covering the processes, materials, and equipment used in the manufacturing of semiconductors. Topics address process-yield analysis and process troubleshooting. Lab required. Prerequisite: SMFT 1343 or consent of Instructor or Program Director. 3 credit hours. (W)

**SOCI 1301 Introduction to Sociology**

Introduction to the scientific study of social factors that influence human behavior. Includes analysis of culture and socialization processes, social interaction, deviance, social stratification/inequality, race relations, global interdependence, and gender. 3 credit hours.

**SOCI 1306 Social Problems**

In-depth examination of selected social problems, their nature, cause, extent, and effects upon society. Social problems will be analyzed at the local, state, national, and international levels. Includes inequality based on race, gender, age, and class. 3 credit hours.

**SOCI 2301 Marriage and Family**

A functional approach to understanding the structural, developmental, and institutional aspects of marriage; a multicultural perspective on the family with consideration given to courtship, mate selection, marriage and its dynamics, conflict, family violence, child-rearing patterns, the later years of marriage, divorce, and remarriage. 3 credit hours.

**SOCI 2306 Human Sexuality**

Understanding of human sexuality; includes an appreciation of different approaches to sexuality as well as an awareness of one's own sexuality and its impact on adjustment to life. 3 credit hours.

*Note: Student may take either PSYC 2306 or SOCI 2306 but not 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 2340 Drug Use and Abuse**

This course is the study of the use and abuse of drugs in today society with emphasis on the physiological, psychological, and sociological factors that contribute to this behavior. 3 credit hours.

**SOCI 2389 Academic Co-op Sociology**

Integrates on-campus study with practical hands-on work experience in sociology. In conjunction with class seminars, the student will set specific goals and objectives in the study of sociology. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Instructor. 3 credit hours.

**SOCW 2361 Introduction to Social Work**

An overview of the history, fields, skills, and values of social work practice in the United States. Includes volunteer placement with a social service agency (Service Learning). 3 credit hours.

**SOCW 2362 Social Welfare**

This course provides an overview of contemporary social welfare including income support services, mental health services and services for children and families. It includes an examination of social welfare policy and programs. Prerequisite/concurrent enrollment: SOCW 2361. 3 credit hours.

**SPAN 1300 Conversational Spanish I**

Intensive practice in spoken Spanish. Prerequisite: SPAN 1412 or consent of Instructor or Department Chair. 3 credit hours.

**SPAN 1310 Conversational Spanish II**

Continuation of Spanish 1300. Prerequisite: SPAN 1300 or consent of Instructor or Department Chair. 3 credit hours.



**SPAN 1411 Beginning Spanish I**

Introduction to the four basic skills of speaking, reading, writing and listening to Spanish with attention to selected aspects of Hispanic culture; designed for students with little or no previous language training. Instruction enhanced by the use of slides, tapes, computer software, and video cassettes. 4 credit hours.

**SPAN 1412 Beginning Spanish II**

Continuation of SPAN 1411. Prerequisite: SPAN 1411 or consent of Instructor or Department Chair. 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 Instructor or Department Chair. 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 Instructor or Department Chair. 3 credit hours.

**SPAN 2313 Spanish for Native Speakers I**

Designed for students for whom Spanish is the primary or secondary method of communication at home, but who have no formal instruction in the language. In addition to grammar and vocabulary review, this course will allow students to develop advanced written and oral communication skills. Prerequisite: SPAN 1412, or consent of Instructor or Department Chair. 3 credit hours.

**SPAN 2315 Spanish for Native Speakers II**

Designed for students for whom Spanish is the primary or secondary method of communication at home, but who have no formal instruction in the language. In addition to grammar and vocabulary review, this course will allow students to develop advanced written and oral communication skills. Prerequisite: SPAN 2313, or consent of Instructor or Department Chair. 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 Instructor or Department Chair. 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 Instructor or Department Chair. 3 credit hours.

**SPCH 1311 Fundamentals of Speech Communication**

Survey of basic factors affecting human interaction through communication; emphasis on the development of oral communication competencies; practice in delivering oral presentations. 3 credit hours.

**SPCH 1315 Public Speaking I**

Study and practice in the preparation and delivery of oral presentations; practice in different types of speeches and forms of delivery; evaluation of speakers and speeches. 3 credit hours.

**SPCH 1318 Interpersonal Communication**

Theories and exercises in verbal and nonverbal communication with focus on interpersonal relationships. The course focuses on interpersonal contexts such as gender communication, romantic and family relationships, conflict, intercultural communication, and listening. 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 2389 Academic Co-op Speech**

Integrates on-campus study with practical hands-on work experience in speech. In conjunction with class seminars, the student will set specific goals and objectives in the study of speech. Contact the Cooperative Work Experience Office. 3 credit hours.

**SRGT 1160 Clinical – Surgical Technology I**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to the Surgical Technology Program. Corequisite: SRGT 1409, or consent of Program Director. 1 credit hour. (W)

**SRGT 1161 Clinical – Surgical Technology II**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: SRGT 1160 and SRGT 1409. Corequisite: SRGT 1541, or consent of Program Director. 1 credit hour. (W)

**SRGT 1171 Transition to Practice for the Surgical Technologist**

This course provides surgical technology students with information and skills to assist in transition from the role of student to the role of a practicing surgical technologist. Information gained about high performance work teams is applied to the surgical setting. Service quality management and diversity concepts are applied to surgical settings. Lab included. Prerequisites: SRGT 1542 and SRGT 2260. Corequisites: SRGT 2130 and SRGT 2361, or consent of Program Director. 1 credit hour. (W)

**SRGT 1301 Medical Terminology I**

Study of the basic structure of medical words including prefixes, suffixes, roots, combining forms, plurals, pronunciation, spelling, and the definitions of medical terms. Emphasis is on building a professional vocabulary required for employment within the allied health care field. 3 credit hours. (W)

**SRGT 1409 Fundamentals of Peri-operative Concepts and Techniques**

In-depth coverage of peri-operative concepts such as aseptic principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field. In addition, peri-operative, intra-operative and post operative patient care concepts, the role of the surgical technologist on the surgical team, development of a surgical conscience; critical thinking; ethical and legal aspects and basic concepts of workplace management are reviewed. Lab included. Prerequisite: Admission to the Surgical Technology Program. Corequisites: HPRS 2201, and SRGT 1160, or consent of Program Director. 4 credit hours. (W)



**SRGT 1541 Surgical Procedures I**

Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Lab required. Prerequisites: HPRS 2201, SRGT 1160, and SRGT 1409. Corequisites: MDCA 1348 and SRGT 1161, or consent of Program Director. 5 credit hours. (W)

**SRGT 1542 Surgical Procedures II**

Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the thoracic, peripheral vascular, plastic/reconstructive, EENT, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Lab required. Prerequisites: SRGT 1161 and SRGT 1541. Corequisite: SRGT 2260 or consent of Program Director. 5 credit hours. (W)

**SRGT 2130 Professional Readiness**

Transition into the professional role of the surgical technologist. Includes professional readiness for employment, attaining certification, and maintaining certification status. A capstone experience may be included. Prerequisites: SRGT 1542 and SRGT 2260. Corequisites: SRGT 1171 and SRGT 2361, or consent of Program Director. 1 credit hour. (W)

**SRGT 2260 Clinical – Surgical Technology III**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: SRGT 1161 and SRGT 1541. Corequisite: SRGT 1542 or consent of Program Director. 2 credit hours. (W)

**SRGT 2361 Clinical – Surgical Technology IV**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: SRGT 1542 and SRGT 2260. Corequisites: SRGT 1171 and SRGT 2130, or consent of Program Director. 3 credit hours. (W)

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**t****TECA 1303 Family, School, and Community**

A study of the relationship among the child, family, community and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Lab required. 3 credit hours.

**TECA 1311 Educating Young Children**

An introduction to the education of the young child, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities and current issues. Lab required. 3 credit hours.

**TECA 1318 Wellness of the Young Child**

A study of the factors that impact the well-being of the young child including healthy behavior, food nutrition, fitness, and safety practices. Focus on local and national standards and legal implications of relevant policies and regulations. Lab required. 3 credit hours.

**TECA 1354 Child Growth and Development**

A study of the physical, emotional, social and cognitive factors of growth and development of children birth through adolescence. 3 credit hours.

**TRVM 1327 Special Events Design**

The development of a special event from the conceptual stage through completion. Emphasis on industry terminology, factors to consider when planning a special event, and contingency plans. 3 credit hours. (W)

**TRVM 1380 Cooperative Education – Tourism and Travel Services Management**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. 3 credit hours. (W)

**TRVM 2301 Introduction to Convention/Meeting Management**

Overview of the meetings and convention industry and the various aspects and skills involved in planning and managing meeting, conventions, and expositions. Emphasis on types of meetings, meeting markets, industry suppliers, budget and program planning, site selection and contract negotiations, registration and housing, food and beverage requirements, function and meeting room setup, and audiovisual requirements. 3 credit hours. (W)

**TRVM 2333 Applied Convention/Meetings Management**

Practical application of meetings and exposition skills through a case study or participation in a conference/meeting. Includes integration of meeting planning tools that compare and discriminate between key areas of program development and convention objectives. Prerequisite: TRVM 2301 or consent of Instructor or Department Chair. 3 credit hours. (W)

**TRVM 2355 Exposition and Trade Show Operations**

A discussion of management of the specific problems of trade shows and exhibitions, including design, construction, and regulation. Includes logistics for planning events, such as crowd control, special effects, lighting, decorations and audio. Procedures for conducting fairs, festivals, sports events, and grand openings. 3 credit hours. (W)

# DIRECTORY



  
**COLLIN  
COLLEGE**

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**Degree Plan Worksheet****FIRST YEAR- First Semester**

Course Number	Course Title	Credit Hours	Prerequisite(s)

**FIRST YEAR- Second Semester**

Course Number	Course Title	Credit Hours	Prerequisite(s)

**FIRST YEAR- Summer Semester**

Course Number	Course Title	Credit Hours	Prerequisite(s)



## Degree Plan Worksheet

### SECOND YEAR- First Semester

Course Number	Course Title	Credit Hours	Prerequisite(s)

### SECOND YEAR- Second Semester

Course Number	Course Title	Credit Hours	Prerequisite(s)

### SECOND YEAR- Summer Semester

Course Number	Course Title	Credit Hours	Prerequisite(s)





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**Preston Ridge Campus (PRC)**

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**Spring Creek Campus (SCC)**

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**CCCCD@ALLEN**

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**Higher Education Center  
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