

## 2011-2012 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 Davison, the ADA/Title IX/504 Coordinator, is located at CHEC Room 404; 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

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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

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Accreditation Review Council on Education in Surgical Technology and Surgical Assisting; Commission on Accreditation for Health Informatics and Information Management Education; Commission on Accreditation for Respiratory Care; Council on Dental Accreditation, American Dental Association; National Association for the Education of Young Children; National League for Nursing Accrediting Commission, Inc.

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*The programs, policies, statements, fees and courses contained herein are subject to continual review and evaluation. Please refer to the college website for the latest updates. 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.*

## CAMPUS LOCATIONS

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To see map of campuses, visit  
<http://www.collin.edu/campuses/index.html>

### Allen Center (AL)

Allen High School  
300 Rivercrest Blvd.  
Allen, Texas 75002  
972.377.1060

### Central Park Campus (CPC)

2200 W. University Drive  
McKinney, Texas 75071  
972.548.6790

### Collin Higher Education Center (CHEC)

3452 Spur 399  
McKinney, Texas 75069  
972.599.3100

### Courtyard Center (CYC)

4800 Preston Park Blvd.  
Plano, Texas 75093  
972.985.3790

### Rockwall Center (RW)

1050 Williams St.  
Rockwall, Texas 75087  
972.772.5737

### Preston Ridge Campus (PRC)

9700 Wade Blvd.  
Frisco, Texas 75035  
972.377.1790

### Spring Creek Campus (SCC)

2800 E. Spring Creek Parkway  
Plano, Texas 75074  
972.881.5790

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

## TABLE OF CONTENTS

General Information	1-9
• About Collin College	10
Admissions and Registration	10-18
Financial Policies and Procedures	18-19
Financial Resources	19-22
Academic Policies	22-29
Student Development	29-34
Educational Services	34-36
Academic and Workforce Degrees	37-70
• Core Curriculum	38-39
• Associate of Arts Degree	42-57
• Associate of Arts in Teaching Degree	57-58
• Associate of Science Degree	59-68
• Pre-Professional Programs	68-69
Workforce Education Programs	69-149
• Core Curriculum	69-70
• Associate of Applied Science Degrees and Certificate Programs	69-149
Course Descriptions	149-244

## COLLIN COLLEGE DIRECTORY

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Board of Trustees  
[http://www.collin.edu/administration/board\\_of\\_trustees.html](http://www.collin.edu/administration/board_of_trustees.html)

Administrators  
[https://ssb.collin.edu/pls/PROD/bwpkedir.P\\_DisplayDirectory](https://ssb.collin.edu/pls/PROD/bwpkedir.P_DisplayDirectory)

Faculty  
<http://hb2504.collin.edu/> (course syllabi, professor  
curricula vitae)

[https://ssb.collin.edu/pls/PROD/bwpkedir.P\\_DisplayDirectory](https://ssb.collin.edu/pls/PROD/bwpkedir.P_DisplayDirectory)

## RELATED LINKS

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Athletics  
<http://www.collin.edu/athletics>

Center for Scholarly and Civic Engagement  
<http://www.collin.edu/academics/csce/index.html>

Cisco Systems Networking Academy  
<http://www.collin.edu/academics/programs/cisco.html>

Continuing Education and Workforce Development  
<http://www.collin.edu/ce>

Fitness Centers  
<http://www.collin.edu/studentresources/personal/fitnesscenters>

Honors Institute  
<http://www.collin.edu/academics/honors>

Learning Communities  
<http://www.collin.edu/learningcomm>

Law Enforcement Academy  
<http://ftp.collin.edu/lawenforcement/index.htm>

National Technical Honor Society  
[http://www.collin.edu/campuslife/national\\_technical\\_honor\\_society.html](http://www.collin.edu/campuslife/national_technical_honor_society.html)

Service Learning  
<http://www.collin.edu/academics/servicelearning>

Student Leadership Academy  
<http://www.collin.edu/academics/sla>

Student Organizations  
[http://www.collin.edu/campuslife/student\\_orgs.html](http://www.collin.edu/campuslife/student_orgs.html)

Teacher Certification Program  
<http://www.collin.edu/teachered/index.html>

The Arts Gallery  
<http://www.collin.edu/theartsgallery>

The Center for Advanced Studies In Mathematics and  
Natural Sciences  
<http://www.collin.edu/academics/casmns/>

Weekend College  
<http://www.collin.edu/academics/weekendcollege/>

# COLLIN COLLEGE 2011-2012 ACADEMIC CALENDAR\*

## FALL 2011

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Aug. 12	<b>All College Day @ Courtyard Marriot - Allen (All Campuses Closed)</b>
Aug. 22	Fall Classes Begin
<b>Sept. 5</b>	<b>Labor Day Holiday (Campuses Closed)</b>
Sept. 6	Fall Census Date
<b>Sept. 16</b>	<b>Plano Balloon Festival-Spring Creek Campus Closes @ 3 p.m.</b>
<b>Sept. 17-18</b>	<b>Plano Balloon Festival-Spring Creek Campus Closed</b>
Oct. 14	Fall Last Day to Withdraw
<b>Nov. 23-27</b>	<b>Thanksgiving Holiday (Campuses Closed)</b>
Dec. 5-11	Fall Final Exam Week
<b>Dec. 22-Jan. 1</b>	<b>Winter Break (Campuses Closed)</b>

## SPRING 2012

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<b>Jan. 5</b>	<b>All College Planning Work Session (All Campuses Close @1 p.m.)</b>
<b>Jan. 16</b>	<b>MLK Holiday Campuses Closed</b> (Except for community activities at SCC)
Jan. 17	Spring Classes Begin
Jan. 30	Spring Census Date
March 9	Spring Last Day to Withdraw
<b>March 12-15</b>	<b>Spring Break (No Classes)</b>
<b>March 16-18</b>	<b>Spring Break (Campuses Closed)</b>
<b>April 6-8</b>	<b>Spring Holiday (Campuses Closed)</b>
May 7-13	Spring Final Exam Week
May 11	Collin 2011-2012 Commencement @ 7 p.m.

## MAYMESTER 2012

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May 14	Maymester Classes Begin
May 15	Maymester Census Date
May 18	Maymester Last Day to Withdraw
<b>May 28</b>	<b>Memorial Day Holiday (Campuses Closed)</b>
May 29	Maymester Final Exams

## SUMMER 2012

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June 4	Summer I and III Classes Begin
June 7	Summer I Census Date
June 13	Summer III Census Date
June 19	Summer I Last Day to Withdraw
<b>July 4</b>	<b>Independence Day Holiday (Campuses Closed)</b>
July 5	Summer III Last Day to Withdraw
July 6	July 4th Make Up Day for Summer I & III Classes
July 6	Summer I Final Exams
July 9	Summer II Classes Begin
July 12	Summer II Census Date
July 24	Summer II Last Day to Withdraw
August 8-9	Summer III Final Exams
August 9	Summer II Final Exams

\* All academic calendar dates are subject to change. Please refer to [www.collin.edu](http://www.collin.edu) for the latest version.

## QUICK REFERENCE

<b>Student Service</b>	<b>CPC</b>	<b>CHEC/CYC</b>	<b>PRC</b>	<b>SCC</b>
Academic Probation or Suspension	972.548.6778 D117		972.377.1779 F109	972.881.5854 G151
Academic Advising	972.548.6782 D117		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 D118	972.985.3721 CYC B101	972.377.1710 F109	972.881.5710 G103
Bookstore	972.548.6680 A104	972.985.3710 CYC B107	972.377.1680 F159	972.881.5680 F161
Career Services & Cooperative Work Experience	972.548.6747 D117		972.377.1781 F109	972.881.5781 G103
Center for Scholarly and Civic Engagement				972.881.5900 F105
Child Development Lab School				972.881.5945 B176
Computer Lab	972.548.6877 C113		972.377.1706 H125	972.881.5966 J110
Counseling Services	972.548.6615 A221		972.377.1785 F117 972.377.1671 F116	972.881.5126 C225
Dean of Students	972.548.6771 L242		972.377.1793 F109	972.881.5604 G227
Financial Aid/Veterans Affairs	972.548.6760 D118		972.377.1760 F109	972.881.5760 G103
Fitness Center	972.548.6891 E121		972.377.1758 Alumni Hall	972.881.5848 A103
Food Service	First Floor	CYC A212	Alumni Hall	972.881.5949 F108
Honors Institute				972.516.5003 F103
Information Center	972.548.6790 First Floor Atrium	972.985.3790 CYC B101	972.377.1790 Founders Atrium	972.881.5790 First Floor Atrium
International Students Office				972.516.5012 G150
Library	972.548.6860 B105		972.377.1560 L150	972.881.5860 D100
Math Lab	972.548.6896 C220		972.377.1639 D141	972.881.5921 J228
Recruitment and Programs for New Students			972.377.1750 F123	972.516.5086 G119
Service Learning Office				972.881.5900 F105
Student Development Center	972.548.6770 D117		972.377.1595 F109	972.881.5627 or 5604 G103
Student Life	972.548.6788 C119		972.377.1788 A185	972.881.5788 F129
Student Lounge	972.548.6788 First Floor D		972.377.1788 Alumni Hall	

<b>Student Service</b>	<b>CPC</b>	<b>CHEC/CYC</b>	<b>PRC</b>	<b>SCC</b>
Tech Prep - Global EDGE	972.548.6723 A114			
Testing Center	972.548.6849 A109		972.377.1523 F209	972.881.5922 J232
Transfer Programs Office		CHEC 120		
Tutoring (ACCESS Office)				972.881.5128 G121
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 Allen Campus*

<b>Administrative Department</b>	<b>CPC</b>	<b>CHEC/CYC</b>	<b>PRC</b>	<b>SCC</b>
ADA/Title IX/504 Coordinator		972.985.3781 CHEC 404		
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 K237
Cashier's Office (Bursar)	972.548.6616 A111E	972.985.3724 CYC B101	972.377.1638 F140	972.881.5634 G143
The Collin College Foundation (Scholarships)		972.599.3145 CHEC 429		
Continuing Education and Workforce Development		972.985.3750 CYC A364		
Dean of Students Office	972.548.6771 L242		972.377.1793 F109	972.881.5604 G227
Instruction Office	972.548.6830 B305			
Plant Operations	972.548.6690 E126	972.985.3777 CYC Basement	972.377.1690 Plant Building	972.881.5690 K006 B
President's Office		972.758.3800 CHEC 400		
Public Relations		972.758.3895 CHEC 411		
TSI Information	972.548.6773 A111	CYC		972.881.5902 G116
Vice President/Provost's Office	972.548.6800 A302		972.377.1550 D106	972.881.5802 G227
Vice President of Administration		972.758.3831 CHEC 312		
Vice President of Student Development		972.599.3150 CHEC 402		
Weekend College				972.881.5801 G231

#### **OTHER COLLEGE LOCATIONS**

Allen Center	972-377-1060
Collin Higher Education Center	972-599-3100
Rockwall Center	972-777-5737

Academic Associate Degree Areas of Emphasis	Associate of Arts (AA)	Associate of Arts in Teaching * (AAT)	Associate of Science (AS)	Field of Study
Accounting – See Business				
American Sign Language (Deaf Education)	•			
Anthropology	•			
Art	•			
Biology			•	
Business	•			•
Chemistry			•	
Communication <i>Advertising / Public Relations</i> <i>General Communication</i>	•			•
Computer Science			•	•
Criminal Justice	•			•
Dance	•			
Economics – See Business				
Education (Leading to Initial Texas Teacher Certification)*				
Early Childhood (EC)-Grade 6		•		
Grades 4-8, EC-12 Special Education		•		
Grades 8-12, EC-12 Other than Special Education		•		
Engineering			•	•
Engineering Technology			•	•
English	•			
Environmental Science			•	
French	•			
Geology			•	
German	•			
Government	•			
History	•			
Industrial Engineering			•	
Mathematics			•	
Mexican-American Studies	•			•
Music	•			•
Nursing	•			•
Paralegal / Legal Assitant	•			
Philosophy	•			
Photography	•			
Physical Education <i>General Physical Education</i> <i>Sports Management</i>			•	
Physics			•	
Psychology	•			
Sociology	•			
Spanish	•			
Technical Communication and Knowledge Management			•	
Theatre	•			

\* (Leading to Initial Texas Teacher Certification)

Workforce and Technical Degree Programs	Associate of Applied Science (AAS)	Certificate	Enhanced Skills Certificate	Marketable Skills Achievement Award
Animation and Game Art				
Animation (3-D Animation Track; Game Art Track)	•	•		
3-D Animation				•
Biotechnology	•	•		
Business Management	•	•		
Human Resources Management		•		
Child Development	•	•		
Child Development Administration of Programs for Children				•
Child Development Associate		•		
Child Development Associate Training				•
Early Childhood Educator		•		
Infant and Toddler Educator		•		
Computer-Aided Drafting and Design	•	•	•	•
AutoCAD				•
Mechanical Computer-Aided Drafting and Design		•		
Computer Networking Technology	•			
Advanced Cisco Systems Networking (CCNP)		•		
Cisco Systems Networking	•			
Cisco Systems Networking (CCNA)				•
Computer Networking Technology Advanced Software (MCSE)		•		
Computer Networking Technology Software (MCSA)		•		
Computer Systems (Computer Support Track; Database Development Track; Information System Track)	•	•		
Computer Systems (C++ Software Development Track; Java Software Development Track)	•			
Computer Applications				•
Database Applications				•
Geographic Information Systems (GIS)	•	•		
Software Design (C++ Track; Java Track)		•		
Convergence Technology	•	•		
Home Technology Integration (HTI) Expert				•
IP Specialization		•		

Workforce and Technical Degree Programs	Associate of Applied Science (AAS)	Certificate	Enhanced Skills Certificate	Marketable Skills Achievement Award
Culinary Arts	•	•		
Pastry Arts	•	•		
Dental Hygienist	•			
Digital Video	•	•		
E-Business Development (Media Track; Android Mobile Development Track; iOS Mobile Development Track; J2ME Mobile Development Track; C# .NET Development Track; Visual Basic .NET Development Track)	•	•		
E-Business Development (Web Development Track)	•			
E-Business Development (E-Commerce Track)		•		
Interactive Web Programming Studio				•
Web Commerce				•
Web Development		•		
Electronic Engineering Technology	•	•		
Biomedical Instrumentation Electronic	•	•		
Emergency Medical Services Professions EMS Paramedic	•	•		•
Fire Academy Basic Firefighter		•		
Basic Firefighter Certification	•			
Fire Science Fire Officer		•		
Fire Officer Certification	•			
Fire Officer Candidate				•
Graphic Design and Web Graphic Design				•
Graphic Design Graphic Design (Print Track; Web Track)	•	•		
Web-Interactive Media				•
Health Information Technology	•			
Medical Coding and Billing		•		
Hospitality and Food Service Management Catering Management		•		
Dietary Manager		•		
Hotel Management		•		
Hotel/Restaurant Management	•	•		
Meetings and Event Management		•		



<b>Workforce and Technical Degree Programs</b>	<b>Associate of Applied Science (AAS)</b>	<b>Certificate</b>	<b>Enhanced Skills Certificate</b>	<b>Marketable Skills Achievement Award</b>
Information Systems Cybersecurity	•	•		
CISSP Information Systems Cybersecurity Professional		•		
Interior and Architectural Design	•	•		•
Green Interior and Architectural Design	•			•
Green Interior and Architectural Design Level I		•		
Green Interior and Architectural Design Level II		•		
Interpreter Preparation Program/Deaf	•			
Interpreter Trainee		•		
Marketing ( <i>Marketing Track; International Business Track</i> )	•			
International Business		•		
Marketing		•		
Music, Commercial				
Audio Engineering		•		
Commercial Music	•			
Music Business		•		
Nursing	•			
Certified Nurse Assistant				•
Healthcare Case Management			•	
LVN / Paramedic Bridge to AAS – Nursing				
Office Systems Technology	•	•		•
Accounting Support				•
Medical Office Support		•		
Paralegal/Legal Assistant	•			
Paralegal General		•		
Photography, Commercial	•	•		
Real Estate	•			
Real Estate Brokers		•		
Real Estate General		•		
Respiratory Care	•			
Semiconductor Manufacturing Technology	•			
Semiconductor Manufacturing Operator		•		
Semiconductor Manufacturing Technology Solar Cell	•			
Semiconductor Manufacturing Technology Solar Cell Engineering		•		
Surgical Technology	•			

# ABOUT COLLIN COLLEGE

## 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.

# 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 18 years or older 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.

Official transcripts are required from all regionally accredited colleges/universities attended. Failure to provide a transcript will result in future registration at Collin being blocked and ineligibility to receive Collin transcripts. If no college/university has been attended, a high school transcript or GED is required.

## ADMISSION TO SPECIAL PROGRAMS

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Programs and certificates in dental hygiene, firefighter certification, nursing, respiratory care, and surgical technology 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 or visit [www.collin.edu](http://www.collin.edu).

## 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. Applications submitted online must meet the deadline posted in the registration guide and found on the website for each term.
2. An official transcript from all regionally accredited colleges/universities attended. All new students must take the Texas Success Initiative (TSI) assessment 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. 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.

### **First Time Freshmen**

Students 18 years and older who have never attended a college/university must submit the following for admission:

1. A completed application to the Admissions and Records Office or submit online at [www.collin.edu](http://www.collin.edu).
2. An official high school transcript or GED.
3. Official TSI documentation.

### **Applicants Without a Diploma or GED**

Students under 18 without a high school diploma or equivalent applying for admission must:

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 (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.

Students admitted under this policy are not eligible for Title IV benefits.

Applicants 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.

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

### **Home-Schooled Admissions**

Home-schooled students under the age of 18 must meet home-schooled admission criteria. Interested students must be 16 on or before the census date for the term in which they intend to enroll. Students under 16 years of age may petition the Associate Dean of Recruitment and Programs for New Students or the Registrar for college admission. To be admitted, all home-schooled students under the age of 18 must:

1. Complete an Application for Admission (online)

2. Provide Official Home School Transcript
3. Complete 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
4. Schedule an interview with Special Admissions Coordinator
5. Complete Advising /Registration Form with Collin College advisor

### **High School Enrollment/Dual Credit**

The High School Concurrent Enrollment/Dual Credit program is designed for high school students 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. High school students interested in concurrent admission to Collin College must:

- Complete an Application for Admission (online)
- Provide Official High School Transcript
- Complete 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.
- Home school and high school dual credit students cannot audit classes or enroll in developmental courses or online courses.

### **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.

### **TRANSFERRING TO COLLIN COLLEGE**

Transfer students who are in good standing academically at the last institution of higher education they attended are eligible for admission to Collin College. An official college transcript from all regionally accredited 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 or accepted.
2. An official transcript from all regionally accredited 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 College 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.

#### ***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. One of the following:
  - an official TOEFL score of 525 or
  - the computerized TOEFL score of 197 or higher or
  - the Internet-Based (IB) test score of 71 or higher or
  - The IELTS (International English Language Testing System) with a score of 6.5 or higher. (*Collin College's institutional code is 6805*).
2. A letter of Guarantee dated within six months of the beginning of the semester and the supporting financial evidence statement. For sponsors residing inside the United States: A notarized Affidavit of Support form dated within six months of the beginning of the semester and the supporting evidence statement.
3. An official transcript (mark sheets, school records) from the last school attended.
4. 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), a valid passport, the I-20 and the original financial documents will be copied and kept on file with ISO.

All students are required to take the Texas Success Initiative (TSI) test prior to enrolling in credit classes.

Foreign transcripts will not be evaluated.

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

Tuition and fees should be paid in full prior to the first class day. There is no financial aid available for international students.

#### ***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. Advisor's Report from the international student advisor at the last college or university attended.
3. Official TSI test scores or documentation. See TSI section for details.
4. ESL assessment will be required for placement in credit level ESL courses. F-1 visa holders, seeking enrollment in credit level ESL courses only, must meet all admission requirements as listed excluding TOEFL.
5. Institutional TOEFL score-reports of 525 (or higher) from the University of Texas at Arlington,

the University of Dallas, or the University of Phoenix will be accepted in lieu of an official TOEFL score report. Students who can document graduation from the Intensive English Language

Institute of the University of North Texas or have completed Freshman English with a “C” or better will be exempt from the TOEFL requirement.

6. Official transcripts from all colleges/universities attended in the United States with a minimum GPA of 2.0. To ensure enrollment degree-seeking transfer students should submit admission requirements prior to the deadlines listed in the Registration Guide or online at [www.collin.edu](http://www.collin.edu).

For more information, contact the International Students Office at Spring Creek Campus, Room G103, 972.516.5012. To download the required forms go to: [www.collin.edu/gettingstarted/advising/international](http://www.collin.edu/gettingstarted/advising/international)

## **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 in order to pay in-state tuition. 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.

## **AD VALOREM WAIVERS**

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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 Admissions and Records 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.

## **RETURNING STUDENTS**

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Former Collin College students who have not been enrolled at Collin College during the preceding two regular (16-week) semesters will need to reapply for admission. An application for readmission, an official transcript from all regionally accredited colleges or universities attended, and documentation of TSI status are required.

### **Students on Academic Suspension**

See “Academic Standards” on page 22 or contact an academic advisor on any campus for more information.

## **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 [http://www.collin.edu/academics/class\\_schedule.html](http://www.collin.edu/academics/class_schedule.html). The guide contains valuable information on important dates and deadlines, registration procedures, tuition and fees, student services and more.

### **Online Registration**

Registration is completed online only. 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.

### **Add/Drop**

Students registering during Add/Drop must meet all TSI requirements. Students may add and/or drop classes through the CougarWeb system through the first two days of classes during the long terms and through the first day of classes during the summer terms. After the first two days of a long term (or the first day during summer/express term), 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. Online registration: (credit card only) Go to [www.collin.edu/ce](http://www.collin.edu/ce) to see instructions or go to the Continuing Education online registration site to view the current Continuing Education class offerings and register for classes.
2. 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.
3. 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.
4. 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.
5. 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.

### **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.

### **ASSESSMENT AND TESTING SERVICES**

Testing Centers are located at Central Park, Preston Ridge and Spring Creek campuses for proctoring, credit by exam testing, limited 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 composite 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. Note: 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 an ACT 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 SAT score of 1070 (or higher) can be exempt from TSI Math with a SAT Math score of 500 (or higher) even though the SAT Critical Reading may be less than 500. Likewise, an SAT Critical Reading score of 500 (or higher) even though the SAT Math may be less than 500 can be exempt from TSI Reading and TSI 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 certain courses. 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:

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:**

Mathematics 230  
Reading 230  
Writing 220

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

Mathematics 39  
Reading 81  
Writing 59/5

### **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, MATH 1332 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.

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

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.

## 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 may be assessed. Without special permission from the Vice President/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.

## Tech Prep

Collin College Tech Prep programs, through the Global EDGE Tech Prep Consortium, were established to help students become successful in community college and beyond. Tech Prep is a multiyear planned sequence of study for technical fields that begins in high school and extends through one or two years at Collin College.

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. These credits are completely tuition free and are awarded based on performance in the tech prep classes completed in high school.

The requirements to receive college credit are:

1. Completion of the high school Tech Prep class with a grade of B or better.
2. Earned an 80\* or better on the end-of-course exam in high school (applies only to select programs) \*Child development courses require an 85 or better.
3. Enroll at Collin College within 24 months after high school graduation and complete six\* non-developmental education credits  
*\* Students who were concurrently enrolled at Collin College before high school graduation need to complete only three additional credits after high school graduation as a condition of eligibility.*
4. 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.

Upon completion of the above 1-4 steps, the free college credits that a student is qualified for will be applied to the college transcript at the end of the college grading cycle.

Current Tech Prep programs at Collin College include: 3-D Animation/Game Art, Applied Graphic Design, Child Development, Computer-Aided Drafting and Design, Computer Information Systems, Computer Networking Technology, Computer Programming, Convergence Technology, Culinary Arts, E-Business Media, Electronic Design, Electronic Engineering Technology, Health Information Technology, Hotel/Restaurant Management, Information Systems Cybersecurity, Interior and Architectural Design, Marketing and Office Systems Technology, Software Development and Surgical Technology. For more information, contact the Global EDGE office at 972.548.6723 or visit the Global EDGE Tech Prep Consortium website at <http://www.collin.edu/studentresources/globaledge/> .

## 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 Collin 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 (2-D or 3-D) – ARTS 1311  
 Art History – ARTS 1303  
 Biology – BIOL 1406 and 1407  
 Calculus (AB) – MATH 2413  
 Calculus (BC) – MATH 2413 (Score of 3)  
     MATH 2413 and 2414 (Score of 4 or 5)  
 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 2302  
 Human Geography—GEOG 1302,  
 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  
 Statistics – MATH 1342  
 U.S. History – HIST 1301 and 1302  
 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. Collin College will not replace an existing grade with CLEP credit, including a grade of "W." Please note: a course must be dropped before census date to avoid a "W" grade.
3. Credit is awarded for CLEP Subject Examination scores at or above the 70th percentile. See the Collin website or contact the Director of Testing for specific passing scores. Official score reports should be sent to the Director of Testing. The college code for Collin College is 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 nonrefundable 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 exam scores of 4 or above. 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 student 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 the Director of Testing for approval.

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

## FINANCIAL POLICIES AND PROCEDURES

### TUITION AND FEE SCHEDULE\*

Credit Hours	In-County	Out of County	Out of State/Country
	\$34 cr hour	\$68 cr hour	\$123 cr hour
1	\$ 36.00	\$ 70.00	\$ 209.00 **
2	\$ 70.00	\$138.00	\$ 248.00
3	\$ 104.00	\$206.00	\$ 371.00
4	\$ 138.00	\$274.00	\$ 494.00
5	\$ 172.00	\$342.00	\$ 617.00
6	\$ 206.00	\$410.00	\$ 740.00
7	\$ 240.00	\$478.00	\$ 863.00
8	\$ 274.00	\$546.00	\$ 986.00
9	\$ 308.00	\$614.00	\$1,109.00
10	\$ 342.00	\$682.00	\$1,232.00
11	\$ 376.00	\$750.00	\$1,355.00
12	\$ 410.00	\$818.00	\$1,478.00
13	\$ 444.00	\$886.00	\$1,601.00
14	\$ 478.00	\$954.00	\$1,724.00
15	\$ 512.00	\$1,022.00	\$1,847.00
16	\$ 546.00	\$1,090.00	\$1,970.00
17	\$ 580.00	\$1,158.00	\$2,093.00
18	\$ 614.00	\$1,226.00	\$2,216.00
19	\$ 648.00	\$1,294.00	\$2,339.00
20	\$ 682.00	\$1,362.00	\$2,462.00
21	\$ 716.00	\$1,430.00	\$2,585.00

\$2 Student record fee included in above fees

\* Subject to change by the Collin College Board of Trustees

\*\* Includes \$200 minimum required by law. Lab fees are not included in above fees. Lab fees vary by course and are not included in tuition schedule.

### FEES

Other fees are applied as required regardless of residency. Per Semester Student Records \$2 fee\*\*\*

### 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

Per Hour	In-County	Out-of-County	Out-of-State
Tuition	\$27	\$61	\$116
Bldg Use Fee	\$ 6	\$ 6	\$ 6
Student Act Fee	\$ 1	\$ 1	\$ 1
	\$34	\$68	\$123

### 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.

### 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.

### SENIOR CITIZEN REDUCED TUITION

Effective Spring 2011, only Texas residents who reach 65 prior to the census date of the term are eligible for a tuition waiver.

Proof of date of birth is required. Contact the Admissions and Records Office for more information.

## **FINANCIAL RESOURCES**

### **FINANCIAL AID**

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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.collin.edu/gettingstarted/financialaid](http://www.collin.edu/gettingstarted/financialaid)). 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.

### **FEDERAL ASSISTANCE PROGRAMS**

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#### **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 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 the U.S. Department of Education without the need for collateral and at a very low interest rate. The federal government guarantees repayment of the loan and pays interest on the subsidized amount borrowed until six months after the student graduates or ceases to be enrolled at least halftime. 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 the U.S. Department of Education. Credit rates will vary. Parents may borrow up to the cost of the education, minus resources and aid.

### **STATE ASSISTANCE PROGRAMS**

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#### **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.

### **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**

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 (12<sup>th</sup> class day during the Fall and Spring semesters; 4<sup>th</sup> class day during the Summer semesters).
3. Twelve or more hours is considered full-time. Nine to 11 hours is considered three-quarter time. Six to eight hours is considered half time.
4. Students must complete 67 percent 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 student 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 State Approving Agency.*

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.

### **Veterans Certification**

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.

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## **SCHOLARSHIP PROGRAMS**

### **Collin College Foundation Scholarships**

Through generous contributions from individuals, corporations and private foundations, Collin College Foundation annually awards scholarships to students. Scholarships, available to both new and continuing students, provide opportunities to pursue academic excellence and secure the degrees of choice. Awards are based on financial need, field of study, civic engagement, academic achievement, and merit. Transfer scholarships are also available. All students are encouraged to apply.

Students are encouraged to visit the Foundation website at <http://www.collin.edu/foundation>. Please check the Foundation website for priority deadlines for submitting applications for fall and spring semesters. Scholarship applications are accepted online only. Additional scholarship information is available in the Foundation Office at the new Collin Higher Education Center campus Suite 429; 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. Contact the Director of Athletics for these scholarships.

### **Collin College Departmental Scholarships**

Scholarships are also available through specific departments for the following: art, child development and education, dance, music, photography and theatre. Information can be obtained in each of the respective departments.

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## **OTHER FINANCIAL AID PROGRAMS**

### **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

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## **ACADEMIC POLICIES**

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### **ACADEMIC STANDARDS**

All students are encouraged to work toward achieving their goals and maintaining scholastic progress throughout their enrollment at the college. Students who maintain a 2.0 or better 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 an academic advisor. In order to have academic holds removed, a student must bring their cumulative GPA up to 2.0. 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 probation deadline for the term. (See Registration Guide "Important Dates" for exact dates). This includes regular (i.e. 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 hours will be placed on academic warning. A registration hold will be placed on the student's records. Students must meet with an academic advisor to discuss

available support services and to have the academic hold removed.

### **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 an academic advisor in order to register for classes. Probation students are limited to 13 semester hours during each regular (i.e. 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 college success class (included within the 13 semester hour limitation). A student who fails or withdraws from college success class will have course enrollment limited to six credit hours the next semester including a college success class.
- Submit a progress report at mid-semester.
- Earn a 2.0 GPA for the current term.

### **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 term, 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 an 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 (i.e. 16-week) semester.

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

After a period of academic suspension (i.e. one regular 16- week semester), a student may be readmitted on academic probation status. Before readmission, the student must meet with an academic advisor. 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 [i.e. two regular (16-week) semesters].

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

To be considered for readmission to the college, students must meet with an academic advisor and meet other re-enrollment requirements based on the student's individual situation, as determined in consultation with an academic advisor. If readmitted, students must earn a 2.0 GPA for the current semester (credit hours approved may be below 13). If a 2.0 GPA is not earned, the student will automatically be placed on permanent academic dismissal and cannot return to Collin College.

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

Students on probation, suspension or dismissal from other colleges may seek enrollment at Collin College. However, in an effort to promote student success, students transferring in on probation, suspension or dismissal from other colleges will not be permitted to enroll in classes after the probation deadline for term.

To be considered for admission, the student must have an official transcript, 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 an academic advisor or designated advisor.
- Enroll in a college success 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 (i.e. 16-week) semester.

### **Right of Appeal**

A student placed on academic suspension has the right to appeal to the Academic Progress Appeals Committee. The appeal process will allow a student to appeal a suspension or 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.

## **ADDING/DROPPING COURSES**

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A change in a student's schedule may be made online through the first two days of classes during the two long terms and through the first day of classes during the summer terms. After the first two days of a long term (or

first day during a summer/express term), students must come, in person, to any campus to make any schedule change. All online changes must be done during the same login session to avoid additional fees.

Students may withdraw from a course with a grade of “W” through the end of the 8th class week during a regular (16-week) term, through Tuesday of the third week of classes in a short (five-week) summer term and through Thursday of the fifth week of classes in a long (10-week) summer term. 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. To ensure that students receive information about the support services available to promote success, all students enrolled in a developmental class must meet with their professor, an advisor, and the dean prior to withdrawing from a developmental class.

## **AUDITING COURSES**

Students who are auditing classes will not receive grades or credit for the course, but their transcript will indicate that the course was audited. Students who are auditing classes will not be required to take tests; however, participation in regular class activities is expected. Foreign language, sign language, developmental education, applied music lessons (MUAP), all Business Information and Engineering Technologies, 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 in person on the first day of classes. 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. Students who audit are not eligible to print from computers in the library or computer lab.

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. Additionally, students admitted under special admissions are not eligible to audit.

## **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.

### **Enrollment Verification for Students (Self-Service)**

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. Login to CougarWeb. Go to [www.collin.edu](http://www.collin.edu). Click on the CougarWeb link and log into CougarWeb. Click on the Home Page tab. Click on “Enrollment Verification” under the Student Quick Links tab. Follow the instructions for printing an enrollment verification.

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

## **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.

## **PASS/FAIL GRADE OPTION**

Non-degree seeking students may select a pass/fail grade option for foreign language, sign language and creative writing courses. This option is not available for students working toward a degree plan or intending to transfer to



another institution. To select a pass/fail grade, complete the appropriate form at the Admissions and Records Office on or before the census date of the term. Pass/fail students may change their status to credit before the census date of the term in the Admissions and Records Office.

## **GRADING SYSTEM**

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<b>A</b> Excellent	4 grade points per semester hr.
<b>B</b> Above Average	3 grade points per semester hr.
<b>C</b> Average	2 grade points per semester hr.
<b>D</b> Below Average	1 grade point per semester hr.
<b>F</b> Failure	0 grade points per semester hr.
<b>W</b> Withdrawn	0 grade points per semester hr. Not included in GPA or Earned Hrs
<b>WS</b>	0 grade points per semester. Withdrawal Affected Not included in GPA or Cumulative Hrs. Counts in State 6 W/D limit.
<b>I</b> Incomplete	0 grade points per semester hr.
<b>AD</b>	A Developmental Course 0 grade points per semester hr.
<b>BD</b>	B – Developmental Course 0 grade points per semester hr.
<b>CD</b>	C – Developmental Course 0 grade points per semester hr.
<b>DD</b>	D – Developmental Course 0 grade points per semester hr.
<b>FD</b>	F – Developmental Course 0 grade points per semester hr.
<b>AT</b> Excellent	Transfer Course 0 grade points per semester hr.
<b>BT</b> Above Average	Transfer Course 0 grade points per semester hr.
<b>CT</b> Average	Transfer Course 0 grade points per semester hr.
<b>DT</b> Below Average	Transfer Course 0 grade points per semester hr.

<b>AU</b> Audit	0 grade points per semester hr. Not included in GPA or Earned Hrs.
<b>CR</b> Credit	0 grade points per semester hour. Included in Earned Hours but not GPA Hours. Used for Advanced Placement, College Level Exam Program, Credit by Exam, Articulated Credit, and Tech Prep.
<b>P</b> Pass	0 grade points per semester hour Not included in GPA or Earned Hours.
<b>T</b>	Non Course Base TASP remediation. 0 grade points per semester hour.
<b>XF</b>	Administrative Assignment of Failure. 0 grade points per semester hour. Not included in GPA or Earned Hours.
<b>XW</b>	Administrative Withdrawal. 0 grade points per semester hour. Not included in GPA or Earned Hours.
<b>Z</b>	No grade reported. Instructor did not assign a grade.
<b>ZW</b>	Administrative withdraw due to a fraudulent act of scholastic dishonesty. 0 grade points per semester hour. Not included in GPA or Earned Hours.

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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 CougarWeb Registration system.

### **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/Provost is required. Requirements of incomplete contracts must be completed as specified in the contract, but no later than the end of the next long 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.

## **REPEATING COURSES**

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. Courses repeated before fall 2009 will have only the last grade and credits (whether higher or lower) earned used in computing the grade point average and applied toward degree or program requirements. Beginning fall 2002, 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.

## **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, Associate of Arts or Science in a

Field Study 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. (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 and Certificate
- Associate of Applied Science and certificates
- Texas Certificate

See pages 38-150 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.

## **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.

## **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.

### **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 Deans' 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.

## **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. Home phone number
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

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.

## **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 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 Maymester sessions.

## **STUDENT RIGHT TO KNOW**

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 access this information, go to Collin's Institutional Research Office website [www.collin.edu/aboutus/statistics/](http://www.collin.edu/aboutus/statistics/)

## **TRANSFER OF CREDIT**

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 for students are located on the Transfer U website at <http://transferu.collin.edu>

## **Common Course Numbering**

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

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

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

## **Guarantee for Transfer Credit**

Collin College guarantees the transferability of course credits to Texas colleges and/or universities that participate in the Guarantee for Transfer Credit program. The guarantee applies to 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.

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.

## 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 is required before transcripts will be released to other parties. 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.collin.edu](http://www.collin.edu).

## 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.

Students may withdraw with a grade of "W" through the end of the 8th week during the regular (16-week) semester or Tuesday of the third week during the short five-week summer term and through Thursday of the fifth week in a long 10-week summer term 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. To ensure that students receive information about the support services available to promote success, all students enrolled in a developmental class must meet with their professor, an advisor, and the dean prior to withdrawing from a developmental class.

## 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 and online. 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, housed in the Student Development Center at each campus (also available online) offers:

- Assistance for undecided and new students in selecting a field of study
- Information about classes and programs
- Assistance with online registration as a Collin College student and adjustment to college life
- Information about academic requirements
- Procedures for dropping a class, appealing grades, registration, etc.
- 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 College for Equal Support Services) is a comprehensive accommodations program for all Collin College students with disabilities.

Following the Americans with Disabilities Act of 1990, the Americans with Disabilities Act Amended in 2008, 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.

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.

Students must notify the ACCESS Office immediately upon registering for classes each semester to request a deaf/blind tuition waiver. The deaf/blind tuition waiver does not apply to all courses and will be determined on a per course per semester basis.

The ACCESS Office is located at Spring Creek Campus, Room G200, Central Park Campus, Room D-118J 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.

## **AIR FORCE ROTC**

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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.

## **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 the Collin College Police at 972.578.5555 or visit <http://www.collin.edu/campuspolice/>.

## **CAREER SERVICES & STUDENT EMPLOYMENT**

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The Career Services & Student Employment (CSSE) department 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. Check our website by going to <http://www.collin.edu>, click on "Student Resources," and Personalized Support." Visit the Career Center nearest you or call for information at:

Central Park Campus:  
Room D117, 972.548.6747  
Preston Ridge Campus:  
Room F109, 972.377.1781  
Spring Creek Campus:  
Room G103, 972.881.5781

## **COUNSELING SERVICES**

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### **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
- Family Violence
- 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 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.collin.edu/zero](http://www.collin.edu/zero).

### **Strategies of Behavior Intervention (SOBI)**

Collin College's Strategies of Behavior Intervention (SOBI) Committee provides a process that reflects best

practices for referring, assessing, responding and assisting students who may display various levels of distressed, disturbed, and/or unregulated behavior. SOBI responds to distressed and threatening behavior in order to provide assistance and to redirect behavior that may negatively impact student learning. SOBI brings to light distressed behaviors that may allow early intervention before a crisis would require a response.

SOBI actions are not a substitute for disciplinary procedures and reports of Code of Conduct violations will be referred directly to the Dean of Student's Office.

## **EMERGENCY PROCEDURES**

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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 <http://www.collin.edu/campuspolice/>.

## **EMERGENCY CLOSING OF THE COLLEGE**

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If classes have been cancelled, an announcement will be posted on the college's website ([www.collin.edu](http://www.collin.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 is the official emergency notification system for Collin College, providing critical information via text message, phone message or e-mail. CougarAlert may be triggered for evacuation, inclement weather, power outages or unscheduled closure but not for promotional purposes. During emergencies, go to [www.collin.edu](http://www.collin.edu) for details. If a closure notice is not posted on the website, the college is open. College-issued email and home phone numbers are automatically loaded for students, but text messaging and additional emails can be added. See <http://www.collin.edu/cougaralert.html> for instructions. (Standard text messaging fees from service providers may apply.)

## Reporting Emergencies

If an emergency should arise on campus, call Collin College Police at 972.578.5555, report it to the campus VP/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.

## GRADUATE GUARANTEE FOR AAS GRADUATES

The Graduate Guarantee shall be used for accountability purposes. The guarantee shall ensure the graduate's employer that the graduate has met program competencies and shall offer up to nine tuition-free hours of education for a program graduate judged by the employer to be unable to perform on the job the competencies as specified in the college program. 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.

## HEALTH SERVICES

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 supplies are available at the VP/Provost offices, 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.

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.

## **Mental Health Leave of Absence**

The College District may permit a temporary leave of absence for a student due to a mental health condition. The leave of absence may be at the request of a student or may be imposed by the College District for a student who poses a serious threat to himself or herself and/or the College District community. For detailed information, see FDAC (LOCAL) at <http://www.tasb.org/policy/pol/private/043500/>

## **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.

## **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.

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

## **STUDENT CODE OF CONDUCT**

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. To review the complete Student Code of Conduct, please refer to the current Collin College Student Handbook.

## **STUDENT LIFE**

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

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.

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

# EDUCATIONAL SERVICES

## BOOKSTORE

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For information on store hours, call:  
972.548.6680 (Central Park Campus),  
972.985.3710 (Courtyard Center for Professional and Economic Development),  
972.377.1680 (Preston Ridge Campus) or 972.881.5680 (Spring Creek Campus) or  
visit the bookstore website at <http://bookstore.collin.edu/>

### Textbook Refunds

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

- Textbooks are returnable through the census date associated with each term they are purchased in.
- You must have the original cash register receipt for a refund. ALWAYS KEEP YOUR RECEIPT.
- Refunds will not be accepted without a receipt. Copies of receipts are not accepted.
- Do not write in new books until you are certain that you have the correct ones. New books that are written in will not receive a full refund.
- Hardcover/Softcover textbooks in shrink-wrap (plastic or vinyl packaging) must be returned unopened in the original package to receive a full refund. Hardcover/Softcover textbooks out of shrink-wrap packaging may be subject to a \$4.00 rewrap fee, if applicable.
- Loose leaf textbooks that have been taken out of shrink-wrap are **nonrefundable**.
- Textbooks with supplements (i.e. online access codes) must be returned with unopened supplements.
- Stand-alone access codes must be returned fully sealed to receive a full refund. Merchandise that has been opened is ineligible for exchange or refund.
- Supplements packaged with textbooks cannot be returned for a refund.
- Trade books such as dictionaries, study guides and other optional materials are **nonrefundable**.
- Defective books, missing pages, etc., will be replaced at no charge during the semester in which they were purchased with original receipt of purchase.
- **Refunds for purchases made with a check may be subject to a 10 day waiting period.**

### Supplies, Clothing and Non-Textbook Items:

All other sales are final. Items may be exchanged within two weeks for the same item if found to be defective with original receipt of purchase.

### Software Returns:

Software that is unopened may be returned with original receipt within two weeks from date of purchase.

## TEXTBOOK BUYBACK POLICY

We buy books at up to 50% of the original purchase price during final exams week at the end of each semester subject to the following conditions:

- Books must be in clean, saleable condition.
- Books must be required for use by the college during the next semester.
- Books must be current editions.
- Workbooks, lab manuals, study guides, mass-market paperbacks, books with torn covers, excessive marking, water damage, books with perforated pages (loose leaf), 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.
- Dictionaries, Cliff Notes and all other self-help books are not bought back.

Please remember that the faculty, not the bookstore, decides whether or not each textbook will be used again. Unless an instructor informs the bookstore that the title will be used again, the bookstore must assume that it will not be used.

Check cashing: With proper identification, checks may be cashed in the amount of ten (\$10.00) dollars with or without a purchase.

MasterCard, Visa, and Discover Credit Cards, as well as checks and cash, are accepted as payment.

## COLLEGE SUCCESS

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COSU 0300, College Success, is a Developmental Education course available for students to enrich their development in study skills, career planning and personal development. For more information, see the course description section starting on page 151.

COSU 0301, Test-Taking and Study Skills for Non-Native English Speakers, is also available and is a course in test-taking techniques and study skills for English as a Second Language (ESL) students, designed to help non-native English speaking students. For more information, see the course description section starting on page 151.

## DEVELOPMENTAL EDUCATION

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Developmental Education (DE) courses are designed to provide students with basic skills needed to achieve success in college-level courses and to complete TSI (Texas Success Initiative) requirements. Although students receive grades for DE courses, those DE courses do not apply toward a degree or certificate, the DE credit does not transfer to other institutions, and the DE grades are not calculated as part of the GPA shown on transcripts (but might be considered when applying for scholarships, financial aid, veteran benefits, etc.).

DE courses include English as a Second Language, College Success, Developmental Mathematics, Developmental Reading, and Developmental Writing courses. The instructional formats of DE courses vary and include computer-based, lecture, online, express, weekend, and self-paced formats. If a student's scores on the basic skills assessment indicate that a student would be better prepared by taking a DE course prior to enrolling in a college-level course in a related field, the student must enroll in the DE course and complete the sequence before enrolling in college-level courses in that field of study. Collin requires that students demonstrating a need for remediation in reading, writing or mathematics complete the appropriate sequence of DE classes in consecutive semesters; this excludes summer semesters.

DE courses may be taken for a combined total of no more than 27 credit hours. \* Students have two opportunities to pass a course; they may not register for that course a third time at Collin College. Instead, students in this situation must complete the course at another institution and provide proof of course completion upon returning to Collin College. This three-peat rule currently applies to English as a Second Language, College Success, and Developmental Mathematics courses.

Home school and high school students are not allowed to enroll in DE courses.

Call the DE office at 972.881.5720 for additional information.

\* College Success courses do not count toward the DE 27-hour limit.

## **English as a Second Language**

If English is not your first language, we have a program that can assist you. Courses offered include; ESL Listening/conversation, ESL Grammar, ESL Reading and ESL Writing.

## **EXPERIENTIAL LEARNING LABS**

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 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 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.

## **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 <http://www.collin.edu/studentresources/writingcenter/index.html> .

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

## **THE LIBRARY SYSTEM**

Collin College's library system, with branches on the Central Park, Preston Ridge and Spring Creek campuses, embodies the college's commitment to academic excellence. The Collin College president and Board of Trustees believe that first rate libraries are central to maintaining a scholarly community and fostering student success.

## **Facilities**

Central Park Campus opened a new 50,000 square foot library in the summer of 2009. A library of comparable size was opened at the Preston Ridge Campus in 2005. The 60,000 square foot Spring Creek library is very popular and heavily used. In November 2010 the Board of Trustees approved construction of a new Spring Creek library. The Collin College libraries were visited over one million times last year. New high speed, networked

computers are provided for students in the libraries. Laptops may be checked out for in library use, wireless networks are in place, while scanners, CD burners, and color printers are common. Many quiet individual and group study rooms are available, as are rooms for individual and group media viewing.

### **On-Site Services and Materials**

Each campus library holds large collections of scholarly books, journals, music recordings, videos, and computer media. Reference librarians provide quick assistance with essays or presentations and are invaluable for in-depth research. Liaison librarians consult with faculty members to prepare instruction for students on how to use the library's voluminous electronic and hard copy resources to complete specific assignments. Individual students are also encouraged to make appointments with reference librarians for one-on-one research assistance.

Traditional services, such as book check out and interlibrary loan, are available at each library. In order to share materials, the library electronic catalog system allows students to have books sent to them from another campus.

Faculty members may place material on reserve at a circulation desk for in-library use or may choose to make documents available on the web through the library's electronic reserves system.

### **Services and Collections for Off-Campus Students**

All library electronic resources and services are available through Cougarweb. The library web site is a portal to millions of authoritative documents, scholarly databases, streaming media, full-text electronic journals and books, electronic reserves, e-mail reference, the library book catalog, and interactive tutorials. These benefit distance learners, off-campus students, as well as students present in one of the libraries.

Visit the Library tab on Cougarweb for more information about these services and resources.

### **Electronic Collections**

More than 125 different electronic collections are available to Collin College students wherever they have access to Cougarweb.

Streaming video of Shakespeare plays from the BBC, the Smithsonian's collection of music from around the world, the New York Times archived from 1850, and thousands of current full text medical and technology books and videos are just a small sample of what is available. Over 650,000 of these electronic objects were downloaded by Collin College students.

### **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 through each campus's Access Office. Screen reading software can read papers, books, or web pages to users. Speech recognition software capable of taking dictation is available as is hardware for image magnification. Videophones are provided for deaf students.

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.

### **STUDY SKILLS SEMINARS**

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Developmental Education (DE) offers free study skills seminars that teach students basic study and test-taking skills to increase college success. A schedule of these free seminars is published each semester and copies are available at the Information Center on each campus.

### **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, limited 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).

### **TUTORING**

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The ACCESS Office provides free 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, Central Park Campus, Room D-118J 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.

# ACADEMIC AND WORKFORCE PROGRAMS

Collin College awards academic transfer degrees and certificates as well as technical workforce degrees and awards. Four types of Associate-level degrees are awarded: the Associate of Arts (AA), the Associate of Science (AS), the Associate of Arts in Teaching (AAT), and the Associate of Applied Science (AAS). Collin also awards Level One and Level Two Certificates, Marketable Skills Achievement Awards (MSAA), and post-associate degree Enhanced Skills Certificates (ESA). Degrees and certificates are awarded only after successful completion of designated courses and a set number of earned credit hours.

## ACADEMIC AND WORKFORCE COURSES

Academic courses apply toward associate degrees and transfer to be applied to baccalaureate degrees at colleges and universities. These courses are designated by an (A) at the end of their course description.

Technical or workforce courses are designated by a (W) at the end of their course description. Workforce courses provide an opportunity for students to obtain skills and knowledge needed for career exploration, licensure, and specific job upgrades. Workforce courses do not always transfer or apply to academic degree programs at four-year colleges and universities. Check with an academic advisor or transfer institution for more information.

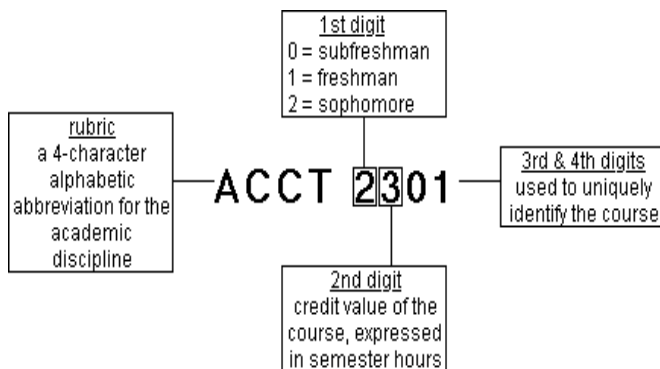
### Developmental Education

College Success Skills (COSU) courses and English as a Second Language (ESL) courses are designed to help students be successful in college level courses. These courses are designated by an (N) at the end of their course description. These courses do not apply to a degree or certificate.

Developmental Education courses prepare students for college-level work. Developmental Education courses do not apply toward a degree or certificate and are designated with a (D) at the end of their course descriptions.

## Course Credit Hours

In the Texas Common Course Numbering System each course is identified by a four-character "rubric" (i.e. prefix or department abbreviation) and a four-digit number:



The **rubric** is always four upper-case alphabetic characters. The first digit of the **course number** denotes the academic level of the course; the second digit denotes the credit value of the course in semester hours; and the third and fourth digits establish course sequencing and/or distinguish the course from others of the same level, credit value, and rubric.

### Course numbers beginning with zero (0)

Course numbers beginning with zero include developmental education, English as Second Language (ESL) courses, and study skills courses. These courses prepare students to be successful in college level work. They are not college-level courses, therefore do not apply to college degrees or other awards, nor do they transfer.

### Course numbers beginning with one (1) or higher

Any course with a number that starts with a one (1) or higher is considered a college-level course. Completion of a college-level course with a D or higher will earn college credit.

## Earned Course Credit Hours

Credit hours are earned upon successful completion of college credit courses. Each degree, certificate or award requires the completion of a specific number of credit hours. The second digit in a course number indicates the number of credit hours earned upon successful completion of the course.

## ACADEMIC ASSOCIATE DEGREES AND CERTIFICATES

Collin College 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. Go to Collin Academic Awards for a complete description of all available awards and their requirements.

An Associate of Arts (AA), Associate of Arts in Teaching (AAT), or Associate of Science (AS) is awarded to students who earn a minimum of 60 college-level credit hours, which include 42 credit hours of general education core curriculum and 18 credit hours of degree requirements and recommended electives from emphasis areas.

The AA, AAT, and AS 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 document will satisfy the requirements of most colleges and universities.

Students should visit with an academic advisor to select courses that apply to their AA, AAT, or AS degree program at Collin College 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.

## TEXAS CORE CURRICULUM (SEE TABLE ON NEXT PAGE)

The Texas Education Code requires all public colleges and universities to have a core curriculum and every degree has a Texas core requirement. 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 and knowledge that help define the educated person. The core curriculum focuses on strengthening six basic competencies: communication skills, critical thinking, empirical and quantitative reasoning, team work, social responsibility, and personal responsibility.

### Texas Core Certificate

A Texas Core Certificate is awarded to all students completing Collin’s core curriculum. The State of Texas guarantees acceptance by a public four-year university of any complete Texas core transferred from any other Texas public college. However, if the entire core curriculum is not completed at Collin, the transfer college may decide on a course-by-course basis whether credit will be transferred and applied to the core curriculum.

The Texas Core Curriculum at Collin College is the collection of 42 credit hours of general education courses selected by Collin faculty in eight areas that have been approved by the Texas Higher Education Coordinating Board to build a basic core of knowledge. Your course options are displayed by area and discipline in the following table. Students should visit with an academic advisor to ensure the best selection of courses to complete the core curriculum and/or an associate degree, and to transfer to their chosen major for a baccalaureate.

Unless otherwise stated, all core course options shown in the Texas Core table can be used to satisfy both core and degree requirements for an Associate of Arts (AA), Associate of Science (AS), and Associate of Arts in Teaching (AAT).

<b>COLLIN AA/AS/AAT CORE CURRICULUM</b>		
Area	Courses	Notes
<b>Communications - 3 Courses (9 Credit Hours)</b>		
English (both required)	ENGL 1301 and 1302	
Speech (select one)	SPCH 1311, 1315, 1321	
<b>Humanities – 1 Course (3 Credit Hours)</b>		
English	ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, 2343, 2351	Satisfy the AA sophomore literature requirement
French	FREN 2303, 2304	*May not take both ANTH 2346 and HUMA 2323.
History	HIST 2311, 2312, 2321, 2322	
Humanities	HUMA 1301, 1305, 2319, 2323*	
Spanish	SPAN 2321, 2322	
Philosophy	PHIL 1301, 1304, 2303, 2306, 2307, 2321	
<b>Mathematics – 1 Course (3 Credit Hours)</b>		
Mathematics	MATH 1314, 1316, 1342, 1414, 2305, 2312, 2318, 2320, 2413, 2414, 2415, 2417, 2419	Satisfy the AS math requirement
	MATH 1324, 1325, 1332, 1350, 1351	Apply only to the AA or AAT
<b>Natural Sciences – 2 Courses (8 Credit Hours)</b>		
Biology	BIOL 1406, 1407, 1411, 1414, 1415, 2401, 2402, 2406, 2416, 2421	A two-course sequence recommended
Chemistry	CHEM 1411, 1412, 2401, 2423, 2425	
Environmental Sciences	ENVR 1401, 1402	
Geology	GEOL 1403, 1404	
Physics	PHYS 1401, 1402, 2425, 2426	
Biology	BIOL 1408, 1409, 2404	Only satisfy the AA or AAT requirement
Chemistry	CHEM 1405	
Geology	GEOL 1401, 1402, 1405, 1445, 1447	
Physics	PHYS 1403, 1404, 1405, 1410, 1415	

Area	Courses	Notes
<b>Social/Behavioral Sciences - 1 Course (3 Credit Hours)</b>		
Anthropology	ANTH 2346*, 2351	*May not take both ANTH 2346 and HUMA 2323.
Economics	ECON 2301, 2302	
Psychology	PSYC 2301	
Sociology	SOCI 1301	
<b>Political Sciences – 4 Courses (12 Credit Hours)</b>		
Government (both required)	GOVT 2301 and 2302	
History (select two)	HIST 1301, 1302 or 2301	
<b>Visual/Performing Arts – 1 course (3 Credit Hours)</b>		
Dance	DANC 2303	
Humanities	HUMA 1311	
Music	MUSI 1306, 1307	
Theatre	DRAM 1310, 2361, 2362	
Visual Arts	ARTS 1301, 1303, 1304, 1313	
<b>Institutional Options – 1 Course (1 Credit Hour)</b>		
Physical Education	PHED 1100, 1102, 1104, 1106, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1120, 1121, 1123, 1124, 1125, 1126, 1127, 1129, 1130, 1131, 1133, 1136, 1137, 1140, 1147, 1148, 1253, 1338	
Dance	DANC 1101, 1110, 1111, 1141, 1142, 1145, 1146, 1147, 1148, 1151, 1152, 1222, 1223, 2141, 2142, 2145, 2146, 2147, 2148, 2151, 2152, 2301, 2325	

## **ASSOCIATE OF ARTS DEGREE REQUIREMENTS**

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The following requirements must be met for an AA degree:

1. Earn a minimum of 60 college-level credit hours.
2. Complete the general education core curriculum of 42 credit hours.
3. Complete a minimum of 18 additional credit hours of degree requirements and recommended electives from emphasis areas.
4. Complete at least one sophomore-level literature course (3 credit hours). This requirement may be simultaneously meet the Humanities core requirement.
5. Earn a minimum cumulative grade point average (GPA) of 2.0
6. Earn a minimum of 18 credit hours in residency at Collin.

## **ASSOCIATE OF ARTS IN TEACHING DEGREE REQUIREMENTS**

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An Associate of Arts in Teaching (AAT) meets the lower division requirements for bachelor degree programs that lead to initial Texas teacher certification. For an AAT degree, you must meet the following requirements:

1. Complete a minimum of 60 credit hours, including all the courses listed for one of three AAT diplomas:
  - ATT-Early childhood-Grade 6
  - ATT-Grades 4-8 or Early Childhood-Grades 12 Special Education
  - ATT-Grades 8-12 or Early Childhood-Grades 12 other than Special Education
2. Complete the general education core curriculum of 42 credit hours.
3. Earn a minimum cumulative grade point average (GPA) of 2.0. Students should be aware that most four-year colleges require a minimum cumulative GPA of 2.5 for admission to their teacher certification program.
4. Earn a minimum of 18 credit hours in residency at Collin.

## **ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS**

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The following requirements must be met for an AS degree:

1. Earn a minimum of 60 college-level credit hours.
2. Complete the general education core curriculum of 42 credit hours.
3. Complete a minimum of 18 additional credit hours of degree requirements and recommended electives from emphasis areas.
4. Complete at least two mathematics courses (six credit hours) from the following list: MATH 1314, 316, 1342, 1414, 2305, 2312, 2318, 2320, 2413, 2414, 2415, 2417, or 2419. Three credit hours of this requirement will simultaneously meet the Mathematics core requirement.
5. Complete at least two Natural Science courses (eight credit hours) from the following list:  
BIOL1406, 1407, 1411, 1414, 1415, 2401, 2402, 2406, 2416, or 2421  
CHEM 1411, 1412, 2401, 2423, or 2425;  
ENVR 1401 or 1402  
GEOL 1403 or 1404  
PHYS 1401, 1402, 2425, or 2426  
A course sequence is recommended. This requirement will simultaneously meet the Natural Science core requirement.
6. Earn a minimum cumulative grade point average (GPA) of 2.0.
7. Earn a minimum of 18 credit hours in residency at Collin.

## **AA AND AS FIELDS OF STUDY**

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AA and AS degrees may have state-recognized Fields of Study (FOS) Transfer Curricula, which are available in nine (9) fields. The certificate of completion for a specific FOS is awarded to guarantee transfer of the courses contained in the FOS curriculum freely among Texas public colleges. The FOS courses are equivalent to the first two years of program coursework in a related bachelor's degree.



Fields of Study are available in the following major areas:

- Business
- Communication Studies
- Computer Science
- Criminal Justice
- Engineering
- Engineering Technology
- Mexican-American Studies
- Music
- Nursing

## **CHOOSING A PROGRAM YEAR**

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If you plan to transfer to a college or university, you have a choice to make regarding the requirements for graduation. Specifically, you may choose to graduate in accordance with the program requirements that are in effect during one of your terms of enrollment. If a degree or certificate is terminated during your enrollment, you will have three years in which to complete the terminated program under the old requirements. You should consult a Collin academic advisor or the program description for the year of your choice to learn about all requirements and limitations that may apply. Students are advised to keep a copy of the program requirements in effect at the time you were enrolled in Collin College and selected a program of study and the transfer guide that was valid at the time. Keep your course syllabi, too.

## **EMPHASIS AREAS**

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Emphasis Areas are typically related general education courses in academic areas that are usually referred to as a major or minor in a four-year baccalaureate program. To ensure that emphasis area (major) credits will apply to a chosen bachelor's degree program, check an academic advisor or the program advisor at the transfer university.

*NOTE: See Academic Associate Degree Areas of Emphasis listing on page 6 in the Quick Reference section.*

## **PRE-PROFESSIONAL PROGRAMS**

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In addition to the general coursework and emphasis area electives that support transfer to bachelor degree programs, Collin offers freshman- and

sophomore-level coursework required for professional programs in Pre-Architecture, Pre-Law, and Pre-Health fields (Chiropractic Medicine; Dental; Medicine; Pharmacy; and Veterinary Medicine). Check with an academic advisor to learn about the requirements for admission to professional programs.

## **ADVANCED STUDY OPPORTUNITIES**

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

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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, BIOL-1407, 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

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*Note: See the course descriptions for complete information on these courses.*

## HONORS INSTITUTE

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The Honors Institute at Collin College can provide you with a challenging learning experience designed for students with advanced academic skills and a commitment to learning. Honors courses are specially designated academic course sections, shown in the registration schedule by an “H” at the end of a course number. Enrollment in an honors course will be recorded on your transcript and you may qualify for honors scholarships. You must have a 3.5 cumulative grade point average (GPA) to be eligible for enrollment in honors courses.

## EMPHASIS AREAS 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

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60 credit hours

**Department Chair:**

Paula Miller                    SCC-K229      972.881.5179

**Academic Advisor:**

Tom Bailey                    PRC-F131      972.377.1771

Debra Lamb                    SCC-G141      972.881.5165

Students who are planning to major in Accounting as part of a bachelor’s degree at a four-year university should refer to the Business Field of Study. Students should complete the AA Core and take ACCT 2301 and ACCT 2302.

## American Sign Language (Deaf Education)

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60 credit hours

**Department Chair:**

Ana Giron                    SCC-G215      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.

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

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

### RECOMENDED ELECTIVES

SGNL 1401 American Sign Language (ASL):  
Beginning I

SGNL 1402 American Sign Language (ASL):  
Beginning II

SGNL 2301 American Sign Language (ASL):  
Intermediate I

SGNL 2302 American Sign Language (ASL):  
Intermediate II

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

SLNG 1447 Deaf Culture

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

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

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*1 Recommended for students pursuing degrees in Deaf Studies*

*2 Recommended for students pursuing degrees in Deaf Education.*

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

## Anthropology

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60 credit hours

**Department Chair:**

Roger Ward                    SCC – B115A 972.881.5026

**Faculty Contact:**

Gerald Sullivan            SCC – B230 972.881.5800

**Academic Advisor:**

Keyona McClellan        SCC – G146 972.516.5069

Anthropology takes as its subject the unity and diversity of our single human species in its total history. Its intellectual origins are in both the natural sciences, and the humanities. Anthropology concerns itself with real people living now and throughout history. Hence anthropology asks questions such as “What defines being human?” “Who are the ancestors of modern humans?” “What are our physical traits?” “How do we behave?” “Why are there variations and differences among different groups of humans?” “How has the evolutionary past of humans influenced social organization and culture?” Most importantly anthropologists seek to ask themselves the twin questions of “What in my world gives rise to my reaction to what other folks do?” and “What in their world makes it sensible for them to do what they do, even if it would never occur to me to do the same thing?”

Anthropology students will gain skills essential to better understand the complexity of the human world and the role of human beings within that complex world. Collin students who study anthropology will gain a foundation in the discipline sufficient for them to transfer to a university program.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVES**

ANTH 2301    Physical Anthropology  
ANTH 2302    Introduction to Archaeology  
ANTH 2346    General Anthropology  
ANTH 2351    Cultural Anthropology  
BIOL 2404    Human Anatomy and Physiology  
                  Basic

BIOL 2416    Genetics  
ENGL 2332    World Literature I  
GEOG 1302    Cultural Geography  
PHIL 2306    Introduction to Ethics  
PSYC 2301    General Psychology  
SOC1 1301    Introduction to Sociology

## Art

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60 credit hours

*Also see Associate of Arts - Photography*

**Department Chair:**

Carter Scaggs                    SCC - A249 972.881.5867

**Academic Advisors:**

John Ciccia                    SCC - G148 972.578.5563

Torrey West                    PRC - F132 972.377.1513

*The Visual Arts Program offers foundation-level courses in drawing, design, art appreciation and art history as well as courses focused on traditional studio disciplines such as painting, watercolor, ceramics, sculpture, printmaking, and jewelry/art metals. In addition to courses, exposure to seminars in professional practices helps students prepare to function as visual artists. Our spacious labs provide access to professional quality equipment, including printing presses, computers, printers, ceramic kilns, electric pottery wheels, and a metal-casting foundry. Our gallery space, THE ARTS gallery, exposes students to the works of current professional artists and showcases student work in both open and juried student shows. Finally, our instructors are highly trained, practicing artists who are dedicated to helping each student explore and research the visual arts and, thereby, reach his or her highest level of skill and creativity.*

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVES**

ARTS 1301    Art Appreciation  
ARTS 1303    Art History I  
ARTS 1304    Art History II





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

Select one of the following Mathematics courses:  
MATH- 1314, 1316, 1324, 1325, 1332<sup>2</sup>,  
1342, 1350, 1351, 1414, 2305,  
2312, 2318, 2320, 2413, 2414,  
2415, 2417, 2419

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

Select two Natural Science courses from the following areas:

(A two-course sequence is recommended.)

**Biology**

BIOL 1406, 1407, 1408, 1409, 1411, 1414, 1415,  
2401, 2402, 2404, 2406, 2416, 2421

**Chemistry**

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

**Environmental Science**

ENVR 1401, 1402

**Geology**

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

**Physics**

PHYS 1401, 1402, 1403, 1404, 1405, 1410, 1415,  
2425, 2426

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

Select one Social/Behavioral Science course from the following areas:

Anthropology ANTH 2346\*, 2351  
Economics ECON 2301, 2302  
Psychology PSYC 2301  
Sociology SOCI 1301

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

Both of the following Government courses are required:

GOVT 2301 and 2302 6 credit hours

Select two of the following History courses:

HIST 1301, 1302 or 2301 6 credit hours

**Visual/Performing**

**Arts** **3 credit hours**

Select one of the following courses:

Dance DANC 2303  
Humanities HUMA 1311  
Music MUSI 1306, 1307  
Theatre DRAM 1310, 2361, 2362  
Visual Arts ARTS 1301, 1303, 1304, 1313

**Institutional Option** **1 credit hour**

Select one DANC/PHED activity courses from the following:

**Dance**

DANC 1101, 1110, 1111, 1141, 1142, 1145, 1146,  
1147, 1148, 1151, 1152, 1222, 1223, 2141, 2142,  
2145, 2146, 2147, 2148, 2151, 2152, 2301, 2325

**Physical Education**

PHED 1100, 1102, 1104, 1106, 1111, 1112, 1113,  
1114, 1115, 1116, 1117, 1118, 1120, 1121, 1123,  
1124, 1125, 1126, 1127, 1129, 1130, 1131, 1133,  
1136, 1137, 1140, 1147, 1148, 1253, 1338

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1 If you are working toward the General Communication Sub-Area of the Communication Field of Study, you have met this requirement. All other component areas of the Core must be completed.

2 Before taking MATH-1332, check with an academic adviser regarding the transferability. Some majors or institutions may require a higher-level mathematics course.

\* You may take either ANTH-2346 as a core option under Social / Behavioral Sciences or HUMA-2323 as a core option under Humanities. HUMA-2323 is not listed above because it will not meet the AA degree requirement. Students may take either ANTH-2346 or HUMA-2323, but not both.

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## Criminal Justice

60 credit hours

**Department Chair:**

David Marble SCC-BB211 972.516.5051

**Academic Advisor:**

Keyona McClellan SCC-G146 972.516.5069

The Associate of Arts - Criminal Justice Field of Study degree 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.

Upon completion of the Field of Study Curriculum, a certificate will be awarded to acknowledge completion and readiness to transition from an associate level to a baccalaureate (BA/BS) level, at any Texas public institution.

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.

## Criminal Justice Field Of Study

15 credit hours

### REQUIRED COURSES

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

To complete the AA degree, in addition to the Field of Study Certificate, complete the core requirements and recommended elective credit hours:

### RECOMMENDED

#### ELECTIVES to complete AA - 3 credit hours

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

## Dance

60 credit hours

### Department Chair:

Tiffanee Arnold            SCC-AA145    972.881.5830

### Academic Advisors:

John Ciccia                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 six times and has performed at the National festival, too. Dance auditions for the dance company are held prior to the fall semester.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES

DANC	1101	Dance Improvisation
DANC	1110	Tap Technique I
DANC	1111	Tap Technique II
DANC	1141	Ballet Technique I
DANC	1142	Ballet Technique II
DANC	1145	Modern Dance Technique I
DANC	1146	Modern Dance Technique II
DANC	1147	Jazz Dance Technique I
DANC	1148	Jazz Dance Technique II
DANC	1151	Dance Performance I
DANC	1152	Dance Performance II
DANC	1201	Dance Composition
DANC	1212	Dance Practicum I
DANC	1213	Dance Practicum II
DANC	1222	Hip Hop I
DANC	1223	Hip Hop II
DANC	2141	Ballet Technique III
DANC	2142	Ballet Technique IV
DANC	2145	Modern Dance Technique III
DANC	2146	Modern Dance Technique IV
DANC	2147	Jazz Dance Technique III

DANC 2148	Jazz Dance Technique IV
DANC 2151	Dance Performance III
DANC 2152	Dance Performance IV
DANC 2210	Projects in Dance Performance and Repertory I
DANC 2211	Projects in Dance Performance and Repertory II
DANC 2212	Dance Practicum III
DANC 2213	Dance Practicum IV
DANC 2301	Topics in Dance Technique
DANC 2303	Dance Appreciation
DANC 2325	Pilates / Anatomy for Dancers
DANC 2389	Academic Co-op Dance

## Economics

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Students who are planning to major in economics as part of a bachelor's degree at a four-year university should refer to the Business Field of Study. Students should complete the AA Core and take ECON 2301 and ECON 2302.

## Education

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*See Associate of Arts in Teaching (AAT) and the Child Development Program.*

## English

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60 credit hours

### Department Chairs:

Shirley McBride	SCC-B108	972.881.5675
Chris Grooms	SCC-H210	972.881.5952
Martha Tolleson	CPC-B252B	972.548.6843
Cheryl Wiltse	PRC-U114	972.377.1546

### Academic Advisor:

Caryn Hawkins	PRC-F133	972.377.1655
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An emphasis in English promotes the development of critical reading, thinking and writing skills.

Composition and rhetoric courses focus on writing as a process requiring planning, analysis, and research

leading to the creation of expository and argumentative essays.

The department also offers a variety of literature courses that satisfy the core requirements for literature and humanities. Sophomore-level courses include surveys in global and national literatures and genre-specific courses in poetry, drama, short story, and novel. Electives in creative writing and technical writing are also available.

Writing Centers, available on each campus, provide students with professional consultation in composing, writing and revising assignments in a variety of disciplines.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES

ENGL 2307	Creative Writing I
ENGL 2308	Creative Writing II
ENGL 2311	Technical and Business Writing
ENGL 2322	British Literature I
ENGL 2323	British Literature II
ENGL 2327	American Literature I
ENGL 2328	American Literature II
ENGL 2332	World Literature I
ENGL 2333	World Literature II
ENGL 2342	Introduction to Literature I - Short Story and Novel
ENGL 2343	Introduction to Literature II - Poetry and Drama
ENGL 2351	Mexican-American Literature
X4XX	Foreign Language Sequence I
X4XX	Foreign Language Sequence II

## French

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60 credit hours

### Department Chairs:

Ana Giron	SCC-G215	972.881.5724
Martha Tolleson	CPC-B252B	972.548.6843
Kim Nyman	PRC-U113	972.377.1087



**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.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVES**

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

*1 Corequisites: must be taken simultaneously**2 Corequisites: must be taken simultaneously***German**

60 credit hours

**Department Chairs:**

Ana Giron	SCC-G215	972.881.5724
Martha Tolleson	CPC-B252B	972.548.6843
Kim Nyman	PRC-U113	972.377.1087

**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.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVES**

GERM 1100	Conversational German I	<sup>1</sup>
GERM 1110	Conversational German II	<sup>2</sup>
GERM 1411	Beginning German I	
GERM 1412	Beginning German II	
GERM 2311	Intermediate German I	<sup>1</sup>
GERM 2312	Intermediate German II	<sup>2</sup>

*1 Corequisites: must be taken simultaneously**2 Corequisites: must be taken simultaneously***Government**

60 credit hours

**Department Chairs:**

David Marble	SCC-BB211	972.516.5051
Michael McConachie	CPC-B219	972.548.6513
Meredith Martin	PRC-F167	972.377.1025

**Academic Advisor:**

Keyona McClellan      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 Emphasis Area features introductory courses in political science emphasizing American and Texas politics. The courses emphasize contemporary political analysis, critical thinking, and hands-on experiential learning exercises.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVES**

GOVT 2304	Introduction to Political Science	
GOVT 2311	Mexican-American Politics	
CRIJ 1301	Introduction to Criminal Justice	
ECON 2301	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	

PHIL	2303	Introduction to Logic
PHIL	2306	Introduction to Ethics
PSYC	2301	General Psychology
	X4XX	Foreign Language Sequence I
	X4XX	Foreign Language Sequence II

X4XX Foreign Language Sequence II

## History

60 credit hours

### Department Chairs:

Roger Ward	SCC-B115A	972.516.5026
Michael McConachie	CPC-B219	972.548.6513
Meredith Martin	PRC-F167	972.377.1025

### Academic Advisor:

Keyona McClellan	SCC-G146	972.516.5069
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### Department Website:

<http://www.collin.edu/history>

The History Emphasis Area is designed for students interested in completing an associate degree as well as students pursuing a bachelor's degree. The American History survey 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, African-American History, World History and Mexican-American History.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES

HIST	2301	History of Texas
HIST	2311	Western Civilization I
HIST	2312	Western Civilization II
HIST	2327	Mexican-American History I
HIST	2328	Mexican-American History II
HIST	2381	African-American History
ECON	2301	Principles of Macroeconomics
ECON	2302	Principles of Microeconomics
PHIL	1301	Introduction to Philosophy
PHIL	2303	Introduction to Logic
PSYC	2301	General Psychology
SOCI	1301	Introduction to Sociology
	X4XX	Foreign Language Sequence I

## Mexican-American Studies

60 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.

## Mexican-American Studies Field of Study

18 credit hours

### REQUIRED COURSES                      18 credit hours

ENGL	2351	Mexican-American Literature <sup>1</sup>
GOVT	2311	Mexican-American Politics
HUMA	1305	Introduction to Mexican-American Studies <sup>1</sup>
HUMA	1311	Mexican-American Fine Arts Appreciation <sup>2</sup>

*Select one of the following History courses:*

HIST	2327	Mexican-American History I
HIST	2328	Mexican-American History II

*Select one of the following Spanish courses:*

SPAN	2312	Intermediate Spanish II
SPAN	2315	Intermediate Spanish for Native Speakers II

*1. One of these courses will satisfy the Humanities component of Collin's core*

*2. This will satisfy the Visual and Performing Arts component of Collin's core*

To complete the AA degree, in addition to the Field of Study Certificate, complete the following core requirements and recommended elective credit hours:

Two Texas Core component requirements--- Humanities and Visual / Performing Arts--- are met through the Field of Study requirements.

### RECOMMENDED

#### ELECTIVES to complete AA - 6 credit hours

Choose a HIST course not used in the FOS for History

Choose a SPAN course not used in the FOS for Spanish

## Music

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66 credit hours

*Music also has a workforce program.*

#### Department Chair:

Christopher Morgan, Ph.D.

SCC - B183 972.516.5010

#### Academic Advisors:

John Ciccia SCC - G148 972.578.5563

Torrey West PRC - F132 972.377.1513

The Associate of Arts - Music Field of Study provides the approved music major courses intended to transfer 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. Upon completion of the Field of Study Curriculum, a certificate will be awarded to acknowledge completion and readiness to transition from an associate level to a baccalaureate (BA / BS) level, at any Texas public institution.

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

## Music Field Of Study

35 credit hours

#### Ensemble: 4 credit hours

MUEN X1XX Ensemble (4 semesters)<sup>1</sup>

#### Applied Study: 8 credit hours

MUAP X2XX Applied Music (4 semesters)<sup>2</sup>

#### Theory / Aural Skills: 16 credit hours

MUSI 1116 Aural Skills I

MUSI 1117 Aural Skills II

MUSI 1311 Music Theory I

MUSI 1312 Music Theory II

MUSI 2116 Aural Skills III

MUSI 2117 Aural Skills IV

MUSI 2311 Music Theory III

MUSI 2312 Music Theory IV

#### Music Literature: 3 credit hours

MUSI 1307 Introduction to Music Literature<sup>3</sup>

#### Keyboard (Piano) Competency: 4 credit hours

MUSI 1181 Beginning Piano I<sup>4</sup>

MUSI 1182 Beginning Piano II<sup>4</sup>

MUSI 2181 Beginning Piano III<sup>4</sup>

MUSI 2182 Beginning Piano IV<sup>4</sup>

To earn the AA degree, in addition to the Field of Study Certificate, complete the following core requirements:

#### Additional Core Requirements

##### Communication: 9 credit hours

ENGL 1301 Composition / Rhetoric I

ENGL 1302 Composition / Rhetoric II

SPCH 1311 Fundamentals of Speech Communication<sup>5</sup>

##### Social Sciences 12 credit hours

The following courses are required by the Texas legislature:

GOVT 2301 American Government I

GOVT 2302 American Government II

HIST 1301 U. S. History I

HIST 1302 U. S. History II

##### Mathematics 3 credit hours

MATH 1314 College Algebra<sup>6</sup>

**Natural Sciences: 8 credit hours**

PHYS 1410 Physics of Music and Sound<sup>7</sup>

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

PSYC 2301 General Psychology<sup>8</sup>

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1. Student must complete 4 credit hours of MUEN courses
  2. Student must complete 8 credit hours of MUAP courses. With approval of the Department Chair, the student may be allowed to take MUAP XIXX
  3. Required - Core component under Visual / Performing Arts
  4. All music majors must see the Department Chair. With permission of the Department Chair, student may take four elective music (MUSI, MUAP or MUEN) credits or MUSI 1304 and one elective music (MUSI, MUAP or MUEN) credit.
  5. May substitute SPCH 1315
  6. Recommended – Other Mathematics Options are: MATH 1316, 1324, 1325, 1332\*, 1342, 1350, 1351, 1414, 2305, 2312, 2318, 2320, 2413, 2414, 2415, 2417 or 2419
  7. Recommended - Other Natural Science Options are: BIOL 1406, 1407, 1408, 1409, 1411, 1414, 1415, 2401, 2402, 2404, 2406, 2416, 2421; CHEM 1405, 1411, 1412, 2401, 2423, 2425; ENVR 1401, 1402; GEOL 1401, 1402, 1403, 1404, 1405, 1445, 1447; PHYS 1401, 1402, 1403, 1404, 1405, 1415, 2425, 2426
  8. May substitute SOCI 1301
- \* Please note: Before taking MATH 1332, check with an academic adviser regarding the transferability. Some institutions may require a higher-level mathematics course.

## Nursing

66 credit hours

*Nursing also has a workforce program*

**Program Director:**

Nell Ard, Ph.D., RN, CNE, ANEF  
CPC - B336 972.548.6772

**Academic Advisor:**

Erin Darity CPC - D117F 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 Nursing 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. Students should check with the academic advisor or their transfer college or university for additional and/or specific degree requirements. 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.

Upon completion of the Field of Study Curriculum, a certificate will be awarded to acknowledge completion and readiness to transition from an associate level to a baccalaureate (BA/BS) level, at any Texas public institution. Neither the Associate of Arts nor Certificate in Nursing Field of Study qualifies the student to take the NCLEX-RN examination for licensure.

## Nursing Field of Study

38 credit hours

**REQUIRED CORE COURSES 14 credit hours**

BIOL	2401	Anatomy and Physiology I
BIOL	2402	Anatomy and Physiology II
MATH	1342	Statistics
PSYC	2301	General Psychology

**OTHER REQUIRED COURSES 24 credit hours**

BIOL	1322	General Nutrition
BIOL	2421	Microbiology
CHEM	1405	Introduction to Chemistry I <sup>1</sup>
PSYC	2314	Life Span Psychology
RNSG	1523	Introduction to Professional Nursing for Integrated Programs <sup>2</sup>
RNSG	2504	Integrated Care of the Client with Common Health Care Needs <sup>3</sup>

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1. May substitute CHEM 1411, General Chemistry I
  2. Corequisite courses, not included in the FOS, are RNSG-1219 and RNSG-1360
  3. Corequisite courses, not included in the FOS, are RNSG-1229 and RNSG-1461

To earn the AA degree, in addition to the Nursing Field of Study Certificate, complete the following core requirements

## CORE CURRICULUM 28 additional credit hours

### Communication 9 credit hours

Complete both of the following English courses:

ENGL- 1301 and 1302

Select one of the Speech courses:

SPCH- 1311, 1315, or 1321

### Humanities 3 credit hours

Select one of these sophomore English courses:

ENGL- 2322, 2323, 2327, 2328, 2332, 2333, 2342, 2343 or 2351

### Social Sciences 12 credit hours

Complete both of the following Government courses:

GOVT- 2301 and 2302

Select two of the following History courses:

HIST- 1301, 1302 or 2301

### Visual/Performing Arts 3 credit hours

Select one of the following Fine Arts courses:

Dance DANC-2303

Humanities HUMA-1311

Music MUSI- 1306, 1307

Theatre DRAM- 1310, 2361, 2362

Visual Arts ARTS- 1301, 1303, 1304, 1313

### Institutional Option 1 credit hour

Select one Dance or Physical Education activity core courses

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\* Please Note: You may take either ANTH-2346 as a core option under Social / Behavioral Sciences or HUMA-2323 as a core option under Humanities. HUMA-2323 is not listed above because it will not meet the AA degree requirement. Students may take either ANTH-2346 or HUMA-2323, but not both.

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## Paralegal / Legal Assistant

60 credit hours

Also see AAS Paralegal/Legal Assistant.

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.

To earn the AA degree, complete the 42 credit hour core curriculum<sup>1</sup>, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES<sup>2</sup>

LGLA 1303	Legal Research
LGLA 1307	Introduction to Law and the Legal Professions
LGLA 1342	Federal Civil Litigation
LGLA 1353	Wills, Trusts, and Public Administration
LGLA 1355	Family Law
LGLA 2307	Law Office Management

1. Before taking MATH 1332, check with an academic adviser regarding the transferability. Some majors or institutions may require a higher-level mathematics course.
2. LGLA-1303, LGLA-1307, LGLA-1342, LGLA-1353, LGLA-1355, and LGL- 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&M Commerce / Collin articulation agreement. Additional hours may be required for transfer. Contact the Department Chair.

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## Philosophy

60 credit hours

### Academic Contacts:

Carl Hasler	SCC - B131	972.881.5753
Martha Tolleson	CPC - B252B	972.548.6843
Kim Nyman	PRC - U113	972.377.1087

### Academic Advisor:

Caryn Hawkins	PRC - F133	972.377.1655
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The Philosophy Emphasis Area 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.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature

course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVE**

- PHIL 1301 Introduction to Philosophy
- PHIL 1304 Comparative Religion
- PHIL 1316 History of World Religions I - Eastern Religions
- PHIL 1317 History of World Religions II - Western Religions
- PHIL 2303 Introduction to Logic
- PHIL 2306 Introduction to Ethics
- PHIL 2307 Introduction to Social and Political Philosophy
- PHIL 2321 Philosophy of Religion
- ANTH 2351 Cultural Anthropology
- ENGL 2322 British Literature I
- ENGL 2323 British Literature II
- ENGL 2332 World Literature I
- ENGL 2333 World Literature II
- GOVT 2304 Introduction to Political Science
- HIST 2311 Western Civilization I
- HIST 2312 Western Civilization II
- X4XX Foreign Language Sequence I
- X4XX Foreign Language Sequence II

**Photography**

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60 credit hours

*Photography also has a workforce program*

**Department Chair:**

Laura Flores SCC - K241 972.578.5527

**Academic Advisors:**

John Ciccia 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 creative and conceptual understanding are covered in great detail.

This diverse emphasis area includes intensive artistic investigations into traditional film-based photography techniques and approaches; including advanced darkroom and alternative processes; 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 a fully-equipped 20 work station MAC lab, a digital media room with Nikon / Imacon / Epson scanners and 20 Epson printers from 13 to 44 inches, a double studio with Profoto strobe set ups and a continuous artificial lighting set up for digital video, a 20 enlarger archival black and white dark room and film processing room; an alternative processing room and black arts facilities with a Davey board cutter; and equipment check out with digital, 35mm, medium and large format film cameras, and portable strobe lighting equipment available.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVES**

- ARTS 1313 Historical Foundation of Photography / Imaging Technology
- ARTS 2336 Papermaking / Bookbinding I
- ARTS 2337 Papermaking / Bookbinding II
- ARTS 2356 Photography I / Darkroom
- ARTS 2357 Photography II / Darkroom
- ARTS 2389 Academic Co-op Arts / Photography
- COMM 1316 News Photography I
- COMM 1317 News Photography II

**Psychology**

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60 credit hours

**Department Chairs:**

Larry Stern SCC - J246 972.881.5608

Michael McConachie CPC - B219 972.548.6513

Meredith Martin PRC - F167 972.377.1025

**Academic Advisor:**

Keyona McClellan SCC - G146 972.516.5069

An Associate of Arts degree with an emphasis in psychology serves as a foundation for continued studies in the discipline. Because most careers in psychology require an advanced degree, many students transfer to a college or university to complete the Bachelor's degree and apply for admission to a graduate program in psychology. The Collin psychology emphasis area features a variety of introductory courses exploring the principles of behavior and mental processes. Course offerings include general psychology, applied psychology, life span psychology, human sexuality, psychology of personality, abnormal psychology, social psychology, and death and dying. These courses emphasize psychological theory and research, the historical context of the development of the field, and the use of psychological concepts as a tool for better understanding what it means to be a human being. Many courses in the Psychology emphasis area require participation in hands-on, experiential assignments that emphasize the application of course material.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVES**

- PSYC 2301 General Psychology
- PSYC 2306 Human Sexuality
- PSYC 2314 Life Span Psychology
- PSYC 2315 Psychology of Adjustment
- PSYC 2316 Psychology of Personality
- PSYC 2319 Social Psychology
- SOCI 1301 Introduction to Sociology
- SOCI 1306 Social Problems
- SOCI 2301 Marriage and Family

The Sociology emphasis area 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 social patterns come to be and 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 the twenty-first century. Critical thinking skills and a global perspective – attributes that will benefit students regardless of their major - are strongly emphasized in the emphasis area. Students pursuing an Associate of Arts degree with an emphasis in sociology will gain a solid foundation in the discipline and be well prepared to transfer into a university program of their choice.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVES**

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

**Sociology**

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60 credit hours

**Department Chairs:**

- Larry Stern SCC - J246 972.881.5608
- Michael McConachie CPC - B219 972.548.6513
- Meredith Martin PRC - F167 972.377.1025

**Academic Advisor:**

- Keyona McClellan SCC - G146 972.516.5069

## Spanish

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60 credit hours

### Department Chairs:

Ana Giron	SCC - G215	972.881.5724
Martha Tolleson	CPC - B252B	972.548.6843
Kim Nyman	PRC - U113	972.377.1087

### Academic Advisor:

Caryn Hawkins	PRC - F133	972.377.1655
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The Associate of Arts degree with an emphasis in Spanish provides the essential language background for the advanced study of Spanish; for the mastery of the competencies in listening, speaking and writing the language; and for a more rapid acquisition of other foreign languages (such as romance languages like French). The courses are oral-proficiency based in order to enable the student to converse in Spanish as quickly as possible.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES

SPAN	1300	Conversational Spanish I
SPAN	1310	Conversational Spanish II
SPAN	1411	Beginning Spanish I
SPAN	1412	Beginning Spanish II
SPAN	2311	Intermediate Spanish I
SPAN	2312	Intermediate Spanish II
SPAN	2313	Spanish for Native Speakers I
SPAN	2315	Spanish for Native Speakers II
SPAN	2321	Spanish Literature I
SPAN	2322	Spanish Literature II

## Theatre

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60 credit hours

### Department Chair:

Shannon Kearns-Simmons	SCC - BB115	972.881.5621
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### Academic Advisors:

John Ciccia	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 script analysis, 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 emphasis area has been nationally ranked among the top 50 collegiate drama programs and was the 1996 national champion of collegiate drama. Theatre 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.

To earn the AA degree, complete the 42 credit hour core curriculum, a 3 credit hour sophomore literature course (may be satisfied with a core literature course) and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES

DRAM	1120	Theatre Practicum - Performance
DRAM	1121	Theatre Practicum - Technical
DRAM	1161	Musical Theatre Workshop I
DRAM	1162	Musical Theatre Workshop II
DRAM	1310	Introduction to the Theatre
DRAM	1322	Stage Movement
DRAM	1323	Basic Theatre Practice
DRAM	1330	Stagecraft I
DRAM	1341	Theatrical Makeup
DRAM	1342	Introduction to Costuming



DRAM 1351	Acting I
DRAM 1352	Acting II
DRAM 1370	Stage Management
DRAM 2170	Demonstration Lab
DRAM 2331	Stagecraft II
DRAM 2336	Voice and Diction
DRAM 2351	Acting III: Improvisation
DRAM 2352	Acting IV: Acting for Film and Television
DRAM 2361	History of the Theatre I
DRAM 2362	History of the Theatre II
DRAM 2363	History of Musical Theatre
DRAM 2366	History of Film Making I
DRAM 2367	History of Film Making II
DRAM 2370	Theatre Outreach
DRAM 2372	Script Analysis
DRAM 2373	Practical Costuming
DRAM 2375	Fundamentals of Stage Lighting
DRAM 2376	Stage Combat and Circus Skills
DRAM 2377	Acting Shakespeare

## EMPHASIS AREAS FOR THE ASSOCIATE OF ARTS IN TEACHING

### Associate of Arts in Teaching Degree Requirements

61 - 63 credit hours

**Department Chair:**

Elaine Zweig, Ph.D.      SCC - B132      972.881.5967

**Academic Advisor:**

Jesus Gonzalez      SCC - G147      972.578.5562

Collin 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 the Collin academic advisor, or go to <http://transferu.collin.edu>.

Please be aware that TECA courses have been removed from the AAT, but these courses are still transferable. Students who have previously taken, or have room to take additional courses should check with the college or university they plan to transfer to see how TECA courses will apply to their degree.

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. Students should be aware that most four-year institutions require a minimum cumulative GPA of 2.5 to be accepted into their teacher certification program.

### AAT Degree Requirements

1. Complete the Texas Core curriculum of 42 credit hours.
2. Complete 18 credit hours in required education courses and content area teaching fields / academic disciplines. (See below)
3. Earn a minimum of 60 credit hours (excluding developmental credit).
4. Earn a minimum of 18 credit hours in residency at Collin.
5. Earn a minimum cumulative GPA of 2.0.
6. Complete TSI requirements.

### AAT in EC - 6

The AAT Early Childhood-Grade 6 Generalists satisfies the lower-division requirements for bachelor's degrees leading to initial Texas teacher certification. EC-Grade 6 Certification areas are: Generalist; Bilingual Generalist; ESL Generalist; other content area teaching field / academic disciplines / interdisciplinary TBA.

**REQUIRED COURSES**                      **16 credit hours**

EDUC	1301	Introduction to the Teaching Profession
EDUC	2301	Introduction to Special Populations
MATH	1350	Fundamentals of Mathematics I
MATH	1351	Fundamentals of Mathematics II
XXXX	x4xx	Additional Lab Science Course <sup>1</sup>

1. Check with the Collin academic advisor and the receiving college or university for recommended courses in teaching field prior to registering.

**RECOMMENDED ELECTIVE****To complete an AAT:                      3 credit hour**

COSC	1301	Computers and Technology
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**AAT in 4-8, EC-12 Special Education**

The Grade 4-8 and Early Childhood-Grade 12 Special Education AAT satisfies the lower-division requirements for bachelor's degrees leading to initial Texas teacher certification in all Grades 4-8 certification areas and EC-12 Special Education. The Grade 4-8 Certification areas are: Generalist; Bilingual Generalist; ESL Generalist; English Language Arts & Reading; English Language Arts & Reading and Social Studies; Mathematics; Science; Mathematics and Science; Social Studies; other content area teaching fields / academic disciplines / interdisciplinary TBA. Early Childhood to Grade 12 Special Education Certification areas are: EC - 12 Special Education; other content area teaching fields / academic disciplines / interdisciplinary TBA. 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
EDUC	2301	Introduction to Special Populations
MATH	1350	Fundamentals of Mathematics I
MATH	1351	Fundamentals of Mathematics II
XXXX	x4xx	Additional Lab Science Course <sup>1</sup>

1. Check with the Collin academic advisor and the receiving college or university for recommended courses in teaching field prior to registering.

**RECOMMENDED ELECTIVE****To complete an AAT:                      3 credit hour**

COSC	1301	Computers and Technology
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**AAT in Grades 8-12, EC-12 Other Than Special Education**

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. The Grades 8 - 12 Certification areas are: History; Social Studies; Mathematics; Life Sciences; Physical Sciences; Science; English Language Arts & Reading; Computer Science; Technology Applications; Health Science Technology Education; Speech; Journalism; Business Education; Marketing Education; Mathematics & Physics; Agricultural Sciences & Technology; Technology Education; Languages other than English; Family and Consumer Sciences; Dance; Mathematics & Physical Science & Engineering; Human Development and Family Studies; Hospitality; Nutrition and Food Sciences; other content area teaching fields / academic disciplines / interdisciplinary TBA.

**REQUIRED COURSES**                      **18 credit hours**

EDUC	1301	Introduction to the Teaching Profession
EDUC	2301	Introduction to Special Populations

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

Additional Twelve (12) credit hours of courses in academic disciplines or content area teaching fields <sup>1</sup>

1. Check with the Collin academic advisor and the receiving college or university for recommended courses in teaching field prior to registering.

Students who have attained a baccalaureate, or higher, degree and are interested in a Texas teacher certification may want to pursue the Continuing Education Teacher Certification Program.

# EMPHASIS AREAS 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 the Collin academic advisor and/or the college or university that they plan to attend.

## Biology

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60 credit hours

### Department Chair

David McCulloch	SCC - I224	972.881.5991
Cathy Donald-Whitney	CPC - C200B	972.548.6717
Carroll Bottoms	PRC - D214	972.377.1534

### Academic Advisor

Lisa Gibbs	SCC - G140	972.578.5564
Torrey West	PRC - F132	972.377.1513

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.

To earn the AS degree, complete the 42 credit hour core curriculum, an additional AS-approved mathematics course and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES

BIOL	1322	General Nutrition
BIOL	1411	General Botany

BIOL	2389	Academic Co-op Biology
BIOL	2401	Anatomy and Physiology I
BIOL	2402	Anatomy and Physiology II
BIOL	2406	Environmental Biology
BIOL	2416	Genetics
BIOL	2421	Microbiology
CHEM	1411	General Chemistry I
CHEM	1412	General Chemistry II
CHEM	2423	Organic Chemistry I
CHEM	2425	Organic Chemistry II
MATH	1342	Statistics
PHYS	1401	General Physics I
PHYS	1402	General Physics II
PHYS	2425	University Physics I
PHYS	2426	University Physics II
SRGT	1301	Medical Terminology I

## Chemistry

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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:

Lisa Gibbs	SCC - G140	972.578.5564
Torrey West	PRC - F132	972.377.1513

### Department Website

<http://www.collin.edu/chemistry>

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.

To earn the AS degree, complete the 42 credit hour core curriculum, an additional AS-approved

mathematics course and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES

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

## Computer Science

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60 credit hours

### Department Chair:

Susan Mahon            PRC - H240    972.377.1688

### Academic Advisor:

                                 PRC - F134    972.377.1780

### Department Website:

<http://www.collin.edu/computerscience/>

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.

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.

Upon completion of the Field of Study Curriculum, a certificate will be awarded to acknowledge completion and recognize preparedness to transition from an associate level to a baccalaureate (BA/BS) level, at any Texas public institution.

## Computer Science Field of Study

30 credit hours

### REQUIRED CORE COURSES            12 credit hours

MATH 2413	Calculus II
PHYS 2425	University Physics II
PHYS 2426	University Physics III

### OTHER REQUIRED COURSES            18 credit hours

COSC 1436	Programming Fundamentals I - C++ <sup>2</sup>
COSC 2325	Computer Organization and Machine Language <sup>3</sup>
MATH 2414	Calculus II 1

(Select from one of the following tracks.)

### C++ Track Content Courses

COSC 1437	Programming Fundamentals II - C++ <sup>2</sup>
COSC 2336	Programming Fundamentals III - C++ <sup>2</sup>

### Java Track Content Courses

COSC 1337	Programming Fundamentals II – Java <sup>2</sup>
COSC 2436	Programming Fundamentals III – Java <sup>2</sup>

To earn the AS degree, in addition to the Field of Study Certificate, complete the following core requirements:

## CORE

### CURRICULUM 31 additional credit hours

#### Communication 9 credit hours

Complete both of the following English courses:

ENGL 1301 and 1302

Select one of the following courses:

SPCH 1311, 1315, or 1321

#### Humanities 3 credit hours

Select one of the following courses:

English ENGL 2322, 2323, 2327, 2328, 2332,  
2333, 2342, 2343, 2351

French FREN 2303 or 2304

History HIST 2311, 2312, 2321, or 2322

Humanities HUMA 1301, 1305, 2319, or 2323\*

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

Spanish SPAN 2321 or 2322

#### Social/Behavioral Sciences 3 credit hours

Select one of the following courses:

Anthropology ANTH 2346\* or 2351

Economics ECON 2301 or 2302

Psychology PSYC 2301

Sociology SOCI 1301

#### Social Sciences 12 credit hours

Complete both of the following Government courses:

GOVT 2301 and 2302

Select two of the following History courses:

HIST 1301, 1302 or 2301

#### Visual / Performing Arts 3 credit hours

Select one of the following:

Dance DANC 2303

Humanities HUMA 1311

Music MUSI 1306, 1307

Theatre DRAM 1310, 2361, 2362

Visual Arts ARTS 1301, 1303, 1304, 1313

#### Institutional Option 1 credit hour

Select one of the Physical Education or Dance activity core courses:

1. 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.

2. 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.

3. 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.

\* You may take either ANTH-2346 as a core option under Social / Behavioral Sciences or HUMA-2323 as a core option under Humanities, but not both.

## Engineering

60 credit hours

#### Program Director:

Dave Galley PRC-H213 972.377.1676

#### Academic Advisor:

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. Upon completion of the Field of Study Curriculum, a certificate will be awarded to acknowledge completion and recognize preparedness to transition from an associate level to a baccalaureate (BA/BS) level, at any Texas public institution.

In addition to the Engineering Field of Study, a specific set of four University of Texas at Dallas (UTD) Electrical Engineering courses are offered in support of our Collin-UTD Bachelor of Science in Electrical Engineering (BSEE) Articulation Agreement.

## Engineering Field Of Study

36 credit hours

### REQUIRED CORE COURSES 11 credit hours

CHEM 1412 General Chemistry II<sup>1</sup>  
MATH 2320 Differential Equations<sup>1</sup>  
PHYS 2425 University Physics I<sup>1</sup>

### OTHER REQUIRED COURSES 25 credit hours

ENGR 2301 Engineering Mechanics I 1  
ENGR 2302 Engineering Mechanics II 1  
ENGR 2305 Circuits I 1  
MATH 2413 Calculus I 1  
MATH 2414 Calculus II 1  
MATH 2415 Calculus III 1  
PHYS 2426 University Physics II 1

To earn the AS degree, in addition to the Field of Study Certificate, complete the following additional 31 credit hours:

### CORE CURRICULUM Additional 31 credit hours

#### Communication 9 credit hours

Complete both of the following English courses:

ENGL 1301 and 1302

Select one of the following Speech courses:

SPCH 1311, 1315, or 1321

#### Humanities 3 credit hours

Select one of the following courses:

English ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, 2343, 2351

French FREN 2303 or 2304

History HIST 2311, 2312, 2321, or 2322

Humanities HUMA 1301, 1305, 2319, or 2323\*

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

Spanish SPAN 2321 or 2322

#### Social/Behavioral Sciences 3 credit hours

Select one of the following courses:

Anthropology ANTH 2346\* or 2351

Economics ECON 2301 or 2302

Psychology PSYC 2301

Sociology SOCI 1301

#### Social Sciences 12 credit hours

Complete both of the following Government courses:

GOVT 2301 and 2302

Select two of the following History courses:

HIST 1301, 1302 or 2301

#### Visual / Performing Arts 3 credit hours

Select one of the following courses:

Dance DANC-2303

Humanities HUMA-1311

Music MUSI- 1306, 1307

Theatre DRAM- 1310, 2361, 2362

Visual Arts ARTS- 1301, 1303, 1304, 1313

#### Institutional Option 1 credit hour

Select any Physical Education or Dance activity core course.

### RECOMMENDED COURSES

The following recommended courses may also be taken toward a bachelor's degree; however, they are not part of the FOS, nor do they satisfy any core requirements.

ENGR 1201 Introduction to Engineering

ENGR 1172 Introduction to Experimental Techniques<sup>2</sup>

ENGR 2110 Introduction to Digital Systems Laboratory<sup>2</sup>

ENGR 2300 Applied Linear Algebra<sup>2</sup>

ENGR 2310 Introduction to Digital Systems<sup>2</sup>

1. Please check prerequisites for this course.

2. This course will transfer to a specific 2+2 engineering program. Please check with your advisor to learn whether the course will transfer to the engineering program of your choice.

\* Please Note: You may take either ANTH 2346 as a core option under Social / Behavioral Sciences or HUMA 2323 as a core option under Humanities, but not both.

## Engineering Technology

60 credit hours

#### Program Director

Dave Galley PRC-H213 972.377.1676

#### Academic Advisor

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.

## Engineering Technology

### Field Of Study

35 credit hours

#### REQUIRED CORE

##### COURSES 12 credit hours

CHEM	1411	General Chemistry I
MATH	2413	Calculus I
PHYS	2425	University Physics I

#### OTHER REQUIRED

##### COURSES 23 credit hours

ENGL	2311	Technical and Business Writing
ENGT	1401	Circuits I
ENGT	1402	Engineering Mechanics III
ENGT	1407	Digital Fundamentals I
MATH	2414	Calculus II
PHYS	2426	University Physics III

To earn the AS degree, in addition to the Field of Study Certificate, complete the following core requirements:

#### CORE CURRICULUM Additional 31 credit hours

##### Communication 9 credit hours

Both of the following English courses are required:

ENGL 1301 and 1302

Select one of the following Speech courses:

SPCH 1311, 1315, or 1321

##### Humanities 3 credit hours

Select one of the following courses:

English ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, 2343, 2351

French FREN 2303 or 2304

History HIST 2311, 2312, 2321, 2322

Humanities HUMA 1301, 1305, 2319, or 2323\*

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

Spanish SPAN 2321 or 2322

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

Select one of the following courses:

Anthropology ANTH 2346\* or 2351

Economics ECON 2301 or 2302

Psychology PSYC 2301

Sociology SOCI 1301

##### Social Sciences 12 credit hours

Both of the following Government courses are required:

GOVT 2301 and 2302

Select two of the following History courses:

HIST 1301, 1302 or 2301

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

Select one of the following:

Dance DANC-2303

Humanities HUMA-1311

Music MUSI- 1306, 1307

Theatre DRAM- 1310, 2361, 2362

Visual Arts ARTS- 1301, 1303, 1304, 1313

##### Institutional Option 1 credit hour

Select one of the Physical Education or Dance activity Core courses.

#### ADDITIONAL RECOMMENDED COURSE

The following course may also be taken toward a bachelor's degree; however, it is not part of the FOS, nor does it satisfy any core requirements:

ENGR 1201 Introduction to Engineering

1. Please check prerequisites for this course.

\* Please Note: You may take either ANTH-2346 as a core option under Social / Behavioral Sciences or HUMA-2323 as a core option under Humanities, but not both.

## Environmental Science

60 credit hours

#### Department Chair:

Cathy Donald-Whitney CPC - C200B 972.548.6717

Carroll Bottoms PRC - D214 972.377.1534

Daphne Babcock SCC - I226 972.578.5518

#### Academic Advisor:

Lisa Gibbs SCC - G140 972.578.5564

Torrey West PRC - F132 972.377.1513

#### Department Website:

<http://www.collin.edu/geology>

Environmental science is a multidisciplinary field concerned with the interaction of processes that shape our natural environment, more specifically understanding the potential causes of environmental problems and possible 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.

To earn the AS degree, complete the 42 credit hour core curriculum, an additional AS-approved mathematics course and electives, totaling 60 credit hours.

#### RECOMMENDED ELECTIVES

ENVR	1401	Environmental Science I
ENVR	1402	Environmental Science II
BIOL	1406	General Biology I
BIOL	2406	Environmental Biology
CHEM	1411	General Chemistry I
GEOL	1403	Physical Geology
GEOL	1405	Environmental Geology
GEOL	1445	Oceanography
GEOL	1447	Introduction to Meteorology
MATH	1342	Statistics
MATH	2413	Calculus I
PHYS	1401	General Physics I

emphasis in geology prepares the student to pursue university studies leading to a Bachelor of Science Degree.

To earn the AS degree, complete the 42 credit hour core curriculum, an additional AS-approved mathematics course and electives, totaling 60 credit hours.

#### RECOMMENDED ELECTIVES

GEOL	1305	Natural Disasters
GEOL	1405	Environmental Geology
GEOL	1445	Oceanography
GEOL	1447	Introduction to Meteorology
GEOL	2389	Academic Co-op Geology
BIOL	2406	Environmental Biology
CHEM	1411	General Chemistry I
CHEM	1412	General Chemistry II
ENGL	2311	Technical and Business Writing
ENVR	1401	Environmental Science I
MATH	1342	Statistics
MATH	2413	Calculus I
MATH	2414	Calculus II
PHYS	2425	University Physics I
PHYS	2426	University Physics II

## Geology

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60 credit hours

#### Department Chair:

Daphne Babcock	SCC - I226	972.578.5518
Cathy Donald-Whitney	CPC - C200B	972.548.6717
Carroll Bottoms	PRC - D214	972.377.1534

#### Academic Advisor:

Lisa Gibbs	SCC - G140	972.578.5564
Torrey West	PRC - F132	972.377.1513

#### Department Website:

<http://www.collin.edu/geology>

The science of geology seeks to understand the earth and the natural processes that act within the earth's environment. The basic concepts of geology overlap several disciplines within the natural sciences.

Knowledge of geology provides a background for careers in natural resources, meteorology, energy, engineering, geophysics, the environmental field and education. The Associate of Science degree with

## Industrial Engineering

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60 credit hours

#### Program Director:

Dave Galley	PRC - H213	972.377.1676
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#### Academic Advisor:

PRC - F134	972.377.1780
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Industrial Engineering is a very important area of engineering today. Industrial Engineers configure today's factories for efficiency, facilitate them to produce macro-technologies (e.g. jet engines or turbines) or micro-technologies (e.g. nanotechnology or microprocessors). An Associate of Science degree with an emphasis in Industrial Engineering is a critical stepping-stone to an engineering education. The second step is a bachelor's degree from a college or university. In support of our Collin-Texas A&M University (TAMU) -Commerce Bachelor of Science in Industrial Engineering Articulation Agreement,



students should follow recommended electives that are consistent with the agreement.

To earn the AS degree, complete the 42 credit hour core curriculum, an additional AS-approved mathematics course and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVSE**

CHEM	1411	General Chemistry I <sup>1</sup>
COSC	1436	Programming Fundamentals I - C++ <sup>1</sup>
DFTG	1309	Basic Computer-Aided Drafting <sup>2</sup>
DFTG	2319	Intermediate Computer-Aided Drafting <sup>2</sup>
ENGR	1201	Introduction to Engineering <sup>2</sup>
ENGR	2301	Engineering Mechanics I <sup>1</sup>
ENGR	2302	Engineering Mechanics II <sup>1</sup>
ENGR	2305	Circuits I <sup>1</sup>
MATH	2414	Calculus II <sup>1</sup>

- 
- 1 Please check prerequisites for this course.*
  - 2 This course will transfer to a specific 2+2 engineering program. Please check with your advisor to learn whether the course will transfer to the Industrial Engineering program of your choice.*

**Mathematics**

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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:**

Lisa Gibbs	SCC - G140	972.578.5564
Torrey West	PRC - F132	972.377.1513

**Department Website:**

<http://www.collin.edu/math>

The Mathematics emphasis area 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 that emphasize applications of

mathematical concepts. Collin features a mathematics laboratory providing personal, computer, and audio-visual tutorial assistance.

To earn the AS degree, complete the 42 credit hour core curriculum, an additional AS-approved mathematics course and electives, totaling 60 credit hours.

**RECOMMENDED ELECTIVES**

MATH	1314	College Algebra
MATH	1316	Trigonometry
MATH	1342	Statistics
MATH	1370	Introduction to the History of Mathematics
MATH	2305	Discrete Mathematics
MATH	2312	Pre-Calculus
MATH	2318	Linear Algebra
MATH	2320	Differential Equations
MATH	2373	Matrices, Vectors, and Linear Programming
MATH	2413	Calculus I
MATH	2414	Calculus II
MATH	2415	Calculus III
MATH	2417	Accelerated Calculus I
MATH	2419	Accelerated Calculus II
ENGL	2311	Technical and Business Writing
ENGL	23XX	Any Literature course
PHIL	2303	Introduction to Logic

**Physical Education**

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60 credit hours

**Department Chair:**

Rex Parcels ..... 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 emphasis area focuses on 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.

## General Physical Education

To earn the AS degree, complete the 42 credit hour core curriculum, an additional AS-approved mathematics course and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES

PHED	1301	Foundations of Sport and Physical Activity
PHED	1304	Personal Health
PHED	1306	Safety and First Aid
PHED	1336	Introduction to Sports Management
PHED	1337	Leadership and Communication in Sports
PHED	1338	Concepts of Physical Fitness and Wellness

## 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.

To earn the AS degree, complete the 42 credit hour core curriculum, an additional AS-approved mathematics course and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES

PHED	1301	Foundations of Sport and Physical Activity
PHED	1336	Introduction to Sports Management
PHED	1337	Leadership and Communication in Sport
ACCT	2301	Financial Accounting
ECON	2301	Principles of Macroeconomics
ECON	2302	Principles of Microeconomics

## Physics

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:

Lisa Gibbs	SCC - G140	972.578.5564
Torrey West	PRC - F132	972.377.1513

### Department Website:

<http://iws.collin.edu/mbrooks/physics/>

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 core options.

Students planning to transfer to a college or university should check the specific degree plan requirements of their intended major.

To earn the AS degree, complete the 42 credit hour core curriculum, an additional AS-approved mathematics course and electives, totaling 60 credit hours.

### RECOMMENDED ELECTIVES

PHYS	1403	Stars and Galaxies
PHYS	2389	Academic Co-op Physics
CHEM	1411	General Chemistry I
CHEM	1412	General Chemistry II
ENGL	2311	Technical and Business Writing
MATH	2312	Pre-Calculus

MATH 2318 Linear Algebra  
MATH 2320 Differential Equations  
MATH 2415 Calculus III

### 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

## Technical Communication and Knowledge Management

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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) course of study 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 emphasis area.

Students interested in this emphasis area should see an academic advisor for consultation and consult the college web site for more specific information.

To earn the AS degree, complete the 42 credit hour core curriculum, an additional AS-approved mathematics course and electives, totaling 60 credit hours.

### CORE CURRICULUM

Some specific Core course selections are recommended but any Core Curriculum options listed in the Texas

Core table that satisfy an AS requirement may be taken.

*Core recommendations include:*

SPCH 1321 Business and Professional Speaking

*Any Philosophy course*

*Two of these Math courses:*

*(One satisfies the Mathematics Component Core requirement and one satisfies the AS degree requirement for an additional Math course.)*

MATH 1342, 2312, 2413, 2414, 2415, 2417, 2419

*Select two of the following Natural Science courses:*

PHYS 1401, 1402, 2425 or 2426

### RECOMMENDED ELECTIVES

BUSI 2304 Business Writing and Technical Communication Seminar

COMM 2301 Intro to Technology and Human Communication

ENGL 2311 Technical and Business Writing

ENGL 2389 Academic Co-op English

SPCH 1318 Interpersonal Communication

## PRE-PROFESSIONAL STUDIES 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 the Collin academic advisor.

## Pre-Architecture

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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 CORE COURSES

ARTS 1311 2-D Design

ENGL 1301 Composition/ Rhetoric I

ENGL 1302 Composition/ Rhetoric II

MATH 2413 Calculus I

MATH 2414 Calculus II

PHYS 1401 General Physics I

PHYS 1402 General Physics II

GOVT 2301 American Government I

GOVT 2302 American Government II

HIST 1301 U.S. History I

HIST 1302 U.S. History II

PSYC 2301 General Psychology

Social/Behavioral Sciences: Any five (5)

Anthropology, Economics, Psychology, and/or

Sociology courses

## Pre-Health Studies

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**Pre-Chiropractic, Pre-Clinical Lab Sciences, Pre-Pharmacy**

**Pre-Physician's Assistant**

**Pre-Veterinary Medicine**

Mary Weis      SCC-K244      972.881.5725

**Pre-Dental, Pre-Medicine**

Jean Helgeson.      SCC-J138      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 document to determine the

order in which to take these courses. To help students make correct choices from the courses listed below, students should visit with a Collin academic advisor.

### RECOMMENDED COURSES

**Biology** **8-16 credit hours**

BIOL-1406 and BIOL-1407

*Two (2) sophomore-level Biology courses*

**Chemistry** **8-16 credit hours**

CHEM-1411, CHEM-1412, CHEM-2423, and/or CHEM-2425

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

ENGL-1301 and ENGL-1302

**Mathematics** **3-14 credit hours**

MATH-1316, MATH-1342, MATH-2413, and/or MATH-2414

**Physics** **0-8 credit hours**

PHYS-1401, PHYS-1402, PHYS-2425, and/or PHYS-2426

**Social/Behavioral Science** **15 credit hours**

ANTH-2351, PSYC-2301, or SOCI-1301

GOVT-2301 and GOVT-2302

HIST-1301 and HIST-1302

### Pre-Law

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**Department Chair:**

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 courses in the following discipline areas:

- Accounting
- Humanities
- Business
- Philosophy
- Economics
- Psychology
- English
- Sociology
- History
- 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

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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 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.

AAS degrees range from 60-72 credit hours with at least half of the coursework from a common technical specialty area and a minimum of 16 general education core credit hours. The AAS degree is awarded to students who meet the specific degree requirements and complete the graduation requirements and a minimum of 18 credit hours in residency at Collin. Within each AAS program are suggested timelines for completion of degrees and certificates.

### AAS CORE CURRICULUM

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Every AAS degree is required to have a core curriculum of general education courses selected by the faculty to complement the technical courses in the area of study. Collin's AAS Core Curriculum consists of 16 credit hours with three credit hours each from English, Speech, Mathematics or Natural Science, Humanities or Fine Arts, and Social/Behavioral Sciences along with 1 credit hour in an activity from Physical Education or Dance. Each core area has multiple course options as shown below. However, some programs limit the core options that may be used to meet the requirements for the specific AAS degree.

*Note 1: Workforce programs at Collin have specific core curriculum requirements. Please refer to the respective degree plan for details.*

*Note 2: 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.*

Area	Courses
<b>Physical Education / Dance – 1 Course (1 Credit Hour)</b>	
Physical Education	PHED 1100, 1102, 1104, 1106, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1120, 1121, 1123, 1124, 1125, 1126, 1127, 1129, 1130, 1131, 1133, 1136, 1137, 1140, 1147, 1148, 1253, 1338
Dance	DANC 1101, 1110, 1111, 1141, 1142, 1145, 1146, 1147, 1148, 1151, 1152, 1222, 1223, 2141, 2142, 2145, 2146, 2147, 2148, 2151, 2152, 2301, 2325

## WORKFORCE CERTIFICATES AND OTHER AWARDS

Collin College also offers Enhanced Skills Certificates (ESC), Level One and Level Two Certificates (CERT), and Marketable Skills Achievement Awards (MSAA) in an Applied Science field. A Level One Certificate consists of 15-42 credit hours that can be completed in one calendar year or less. Level Two Certificate programs consist of 43-59 credit hours. Students in all Level Two Certificates must meet the requirements of the Texas Success Initiative. A Marketable Skills Achievement Award (MSAA) is a sequence of credit courses totaling 9-14 credit hours. An Enhanced Skills Certificate (ESC) requires the completion of an AAS or higher degree prior to completing 6-15 additional credit hours in a specific emphasis area. The Quick Reference section has a concise listing of all awards and programs.

### 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.

<b>COLLIN AAS CORE CURRICULUM</b>		<b>16 Credit Hours</b>
Area	Courses	
<b>English – 1 Course (3 Credit Hours)</b>		
English	ENGL 1301	
<b>Speech Communication – 1 Course (3 Credit Hours)</b>		
Speech	SPCH 1311, 1315, 1321	
<b>Mathematics / Natural Sciences – 1 Course (3 Credit Hours)</b>		
Mathematics	MATH 1314, 1316, 1324, 1325, 1332, 1342, 1350, 1351, 1414, 2305, 2312, 2318, 2320, 2413, 2414, 2415, 2417, 2419	
Biology	BIOL 1406, 1407, 1408, 1409, 1411, 1414, 1415, 2401, 2402, 2404, 2406, 2416, 2421	
Chemistry	CHEM 1405, 1411, 1412, 2401, 2423, 2425	
Environmental Science	ENVR 1401, 1402	
Geology	GEOL 1401, 1402, 1403, 1404, 1405, 1445, 1447	
Physics	PHYS 1401, 1402, 1403, 1404, 1405, 1410, 1415, 2425, 2426	
<b>Social / Behavioral Sciences – 1 Course (3 Credit Hours)</b>		
Anthropology	ANTH 2346*, 2351	
Economics	ECON 1301, 2301, 2302	
Psychology	PSYC 2301	
Sociology	SOC1 1301	
Government	GOVT 2301, 2302	
History	HIST 1301, 1302, 2301	
<b>Humanities / Fine Arts – 1 Course (3 Credit Hours)</b>		
Dance	DANC 2303	
English	ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, 2343, 2351	
French	FREN 2303, 2304	
History	HIST 2311, 2312, 2321, 2322	
Humanities	HUMA 1301, 1305, 1311, 2319, 2323*	
Philosophy	PHIL 1301, 1304, 2303, 2306, 2307, 2321	
Spanish	SPAN 2321, 2322	
Theatre	DRAM 1310, 2361, 2362	
Visual Arts	ARTS 1301, 1303, 1304, 1313	

Collin offers Marketable Skills Achievement Awards for the following:

- Child Development, contact Elaine Wilkinson at 972.881.5967
- Cisco Systems Networking (CCNA), contact Dave Galley at 972.377.1676
- Communication Design / Animation and Game Art, contact Laura Flores at 972.578.5527
- Communication Design / Graphic Design and Web, contact Laura Flores at 972.578.5527
- Computer-Aided Drafting and Design, contact Dave Galley at 972.377.1676
- Computer Systems, contact Susan Mahon at 972.377.1688
- Convergence Technology, contact Dave Galley at 972.377.1676
- E-Business Development, contact Susan Mahon at 972.377.1688
- 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
- Nursing, contact Nell Ard at 972.548.6772
- Office Systems Technology, contact Mary Jane Tobaben at 972.881.5170

## Animation and Game Art

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*Also see Digital Video*

### Department Chair:

Laura Flores            SCC - K241    972.578.5727

### Academic Advisors:

John Ciccia            SCC - G148    972.578.5563

Torrey West            PRC - F132    972.377.1513

### Program Options:

#### AAS - Animation

*3-D Animation Track*

*Game Art Track*

#### **Certificate - Animation**

*3-D Animation Track*

*Game Art Track*

#### **MSAA - 3-D Animation**

For over twenty years, the Communication Design department (formerly Applied Graphic Design Technology) at Collin has offered industry-standard education in the creative service fields of animation, digital video, graphic design, web and interactive design. All full-time faculty have industry experience and all associate faculty are practicing professionals. Current industry practices and standards are a central component of classroom instruction. There is an elective option for the most diligent students to earn credit through local industry internships. Guest speakers from industry are featured on an on-going basis.

The 3-D Animation Track emphasizes creative concept development and technical skills in the execution of 3-D animation and 3-D still imagery for advertising, industrial visualization, entertainment and corporate communication. The Game Art Track emphasizes concept development for games as well as 2-D and 3-D art and animation skills for the computer gaming industry. Students will also learn level design and the integration of high-end 3-D computer graphics with game engines in a group project environment.

## AAS – 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
ARTS	1316	Drawing I
ARTV	1303	Basic Animation - Flash
ARTV	1341	3-D Animation I

ARTV 1343 Digital Sound  
TECHNICAL COURSE 1

**Third Semester**

PHED / DANC Any 1 credit hour activity course  
(See PHED/DANC Core Options)

TECHNICAL COURSE 2

**SECOND YEAR**

**First Semester**

ARTS 1301 Art Appreciation  
(See other Humanities/Fine Arts  
Core Options)

ARTV 2345 3-D Modeling and Rendering II -  
Maya

MATH 1332 College Mathematics <sup>1</sup>

SPCH 1311 Fundamentals of Speech  
Communication  
(See other Speech Core Options)

TECHNICAL COURSE 3

OPTION 1 *Select one of the following:*

ARTV 2301 2-D Animation I - Flash  
ARTV 2351 3-D Animation II - Maya

**Second Semester**

ARTV 2335 Portfolio Development for  
Animation (Capstone)

PSYC 2301 General Psychology  
(See other Social/Behavioral Science  
Core Options)

OPTION 2 *Select one of the following:*

ARTV 2330 2-D Animation II - Flash  
ARTV 2355 Character Rigging and Animation

TECHNICAL COURSE 4

**ELECTIVE**

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1. *May substitute MATH-1314, MATH-1316, MATH-1324,  
MATH-1325, MATH-1342, MATH-1350, MATH-1351,  
MATH-2305, MATH-2312, MATH-2318 or MATH-2320*  
*Elective (3 credit hours): ARTC-1394, FLMC-2331,  
GAME-2386*

This degree has two tracks. Students must select one of  
the following tracks and complete its technical courses  
listed below:

**AAS - Animation - 3-D Animation Track:**

Technical Course 1: ARTC-1353 Computer  
Illustration I

Technical Course 2: FLMC-1331 Video Graphics  
and Visual Effects I

Technical Course 3: ARTV-1351 Digital Video

Technical Course 4: FLMC-2305 Film-Style 3-D  
Animation Production

**AAS - Animation - Game Art Track:**

Technical Course 1: COSC-1315 Fundamentals of  
Programming

Technical Course 2: GAME-1303 Introduction to  
Game Design and Development

Technical Course 3: GAME-1304 Level Design

Technical Course 4: GAME-2359 Game and  
Simulation Group Project

**Certificate – Animation**

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 1303 Basic Animation - Flash

ARTV 1341 3-D Animation I

TECHNICAL COURSE 1

TECHNICAL COURSE 2

**SECOND YEAR**

**First Semester**

ARTV 2345 3-D Modeling and Rendering II -  
Maya

OPTION 1 *Select one of the following:*

ARTV 2301 2-D Animation I - Flash  
ARTV 2351 3-D Animation II - Maya

TECHNICAL COURSE 3

**Second Semester**

ARTV 2335 Portfolio Development for  
Animation (Capstone)

OPTION 2 *Select one of the following:*



ARTV 2330 2-D Animation II - Flash  
ARTV 2355 Character Rigging and Animation

#### TECHNICAL COURSE 4

This certificate has two tracks. Students must select one of the following tracks and complete its technical courses listed below:

#### Certificate - Animation - 3-D Animation

##### Track:

- Technical Course 1: FLMC-1331 Video Graphics and Visual Effects I  
Technical Course 2: ARTV-1351 Digital Video  
Technical Course 3: FLMC-1301 History of Animation Techniques  
Technical Course 4 *Elective - Select one of the following:* ARTC-1394, FLMC-2331 or GAME-2386

#### Certificate - Animation - Game Art Track:

- Technical Course 1 COSC-1315 Fundamentals of Programming  
Technical Course 2: GAME-1303 Introduction to Game Design and Development  
Technical Course 3: GAME-1304 Level Design  
Technical Course 4 GAME-2359 Game and Simulation Group Project

#### 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 \*

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\* *Electives (6 credit hours): ARTC-1302 ARTC-1394, ARTV-2301, ARTV-2330, ARTV-2351, ARTV-2355, FLMC-1331*

*Note: Some of the courses in this award program may require prerequisites. Please check the course descriptions.*

## Biotechnology

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#### Department Chair:

Daphne Babcock SCC - I226 972.578.5518

#### Faculty Contact:

Bridgette Kirkpatrick SCC - I208 972.578.5513

#### Academic Advisor:

Lisa Gibbs SCC - G140 972.578.5564

Torrey West PRC - F132 972.377.1513

#### Program Options:

##### AAS - Biotechnology

##### Certificate - Biotechnology

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.

## AAS – Biotechnology

68 credit hours

#### FIRST YEAR

##### First Semester

BIOL 1406 General Biology I  
BIOL 1414 Introduction to Biotechnology  
BIOL 1415 Introduction to Biotechnology II  
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  
(See other Humanities / Fine Arts Core Options)  
PHED / DANC Any activity course  
(See PHED / DANC Core Options)

## 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 (See other Social / Behavioral Science Core Options)

### Second Semester

BITC	1350	Special Studies and Bioethical Issues of Biotechnology
BITC	2387	Internship – Biology Technician/ Biology Laboratory Technician (Capstone)
BITC	2441	Molecular Biology Techniques
SPCH	1321	Business and Professional Speaking <sup>5</sup>
ELECTIVE	*	

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1. May substitute MATH 1314

2. May substitute BIOL 1411, BIOL 2401, or BIOL 2404

3. May substitute COSC 1301

4. May substitute BIOL 2401, BIOL 2421, or CHEM 2423

5. Required: no options

\* Elective (3 credit hours): BITC-2350, BITC-2386, ENGL-2311, or ENVR-1401

Note: A course will be counted only once – either as an elective or a requirement

## Certificate – Biotechnology

30 credit hours

### First Semester

BIOL	1406	General Biology I
BIOL	1414	Introduction to Biotechnology
BIOL	1415	Introduction to Biotechnology II
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*		

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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, BITC-2350, COSC-1301, ENGL-2311, or ENVR-1401

Note: A course will only count only once, as an elective or a requirement.

## Business Management

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### Department Chair:

Paula Miller                      SCC - K229      972.881.5179

### Academic Advisor:

Tom Bailey                      PRC - F131      972.377.1771

Debra Lamb                      SCC - G141      972.881.5165

### Department Website:

<http://www.collin.edu/management>

### Program Options:

#### AAS - Business Management

#### Certificate - Business Management

#### Certificate - Human Resources Management Specialization

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. Tech Prep students who took collegiate level courses 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.

## AAS – Business Management

61 credit hours

### FIRST YEAR

#### First Semester

BCIS	1305	Business Computer Applications <sup>1</sup>
BMGT	1307	Team Building
BMGT	1327	Principles of Management
ENGL	1301	Composition / Rhetoric I
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)

#### Second Semester

ACCT	2301	Financial Accounting <sup>2</sup>
BMGT	1341	Business Ethics
ECON	1301	Introduction to Economics <sup>3</sup>
MATH	1332	College Mathematics <sup>4</sup>
PHED / DANC		Any activity course (See PHED / DANC Core Options)
SPCH	1321	Business and Professional Speaking (See other Speech Core Options)

### SECOND YEAR

#### First Semester

BMGT	1344	Negotiations and Conflict Management
BMGT	2310	Financial Management
HRPO	2301	Human Resources Management
HRPO	2307	Organizational Behavior
ITSW	1304	Introduction to Spreadsheets - Excel

### Second Semester

BMGT	2309	Leadership
BMGT	2311	Change Management
BMGT	2341	Strategic Management
BMGT	2382	Cooperative Education - Business Administration and Management, General (Capstone)
IBUS	1354	International Marketing Management

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1. May substitute COSC-1301

2. May substitute ACNT-1303

3. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302

4. May substitute MATH-1324 or MATH-1314  
(recommended for transfer students)

Note: Substitutions for WECM courses may be made only with written approval of the Department Chair.

## Certificate - Business Management

18 credit hours

### First Semester

BMGT	1305	Communications in Management
BMGT	1307	Team Building
BMGT	1327	Principles of Management

### Second Semester

BMGT	2309	Leadership (Capstone)
BMGT	2311	Change Management
BMGT	2341	Strategic Management

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Note: Substitutions for WECM courses may be made only with written approval of the Department Chair.

## Certificate - 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

Note: Substitutions for WECM courses may be made only with written approval of the Department Chair.

## Child Development

Also see *Child Development / Early Childhood and the Associate of Arts in Teaching (AAT)*

### Department Chair:

Elaine Zweig, Ph.D. SCC - B132 972.881.5967

### Academic Advisor:

Jesus Gonzalez SCC - G147 972.578.5562

### Program Options:

**AAS - Child Development**

**Certificate - Child Development**

**Certificate - Child Development Associate**

**MSAA - Child Development Administration of Programs for Children**

**MSAA -Child Development Associate Training**

Collin's Child Development program has received accreditation from the National Association for the Education of Young Children (NAEYC). It is the only program in Texas to have NAEYC accreditation and to also hold Exemplary Status with the Texas Higher Education Coordinating Board. 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.

Note 1: TECA is the prefix for transfer courses.

Note 2: All CDEC and TECA courses, except TECA-1354, require the student to complete a one-hour lab component.

## 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.

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

## AAS – Child Development

62 - 65 credit hours

### FIRST YEAR

#### First Semester

CDEC	1319	Child Guidance <sup>1</sup>
CDEC	1323	Observation and Assessment <sup>1</sup>
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 (See PHED / DANC Core Options)
PSYC	2302	Applied Psychology (See other Social/Behavioral Science Core Options)
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)
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
COSC	1301	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 (See other Humanities/Fine Arts Core Options)
MATH	1332	College Mathematics (See other Mathematics/Natural Science Core Options)
ELECTIVE	**	

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

\*\* *Electives (9 credit hours): CDEC-1317, CDEC-1358, CDEC-1359, CDEC-1370, CDEC-2307, CDEC-2315, CDEC-2322, CDEC-2324, or CDEC-2385*

## Certificate - Child Development

28 credit hours

### FIRST YEAR

#### First Semester

CDEC	1313	Curriculum Resources for Early Childhood Programs <sup>1</sup>
CDEC	1323	Observation and Assessment <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	1335	Early Childhood Development: 3 - 5 Years
CDEC	1359	Children with Special Needs
CDEC	2166	Practicum - Child Care Provider / Assistant (Capstone)
TECA	1303	Family, School, and Community

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

## Certificate – Child Development Associate

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
CDED	2324	Child Development Associate Training III
TECA	1318	Wellness of the Young Child
TECA	1354	Child Growth and Development

## 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

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*Note: Some of the courses in this award program may require prerequisites. Please check the course descriptions.*

## 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

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*Note: Some of the courses in this award program may require prerequisites. Please check the course descriptions.*

## Child Development / Early Childhood

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*Also see, Child Development and Associate of Arts in Teaching (AAT)*

### Department Chair:

Elaine Zweig, Ph.D.      SCC-B132      972.881.5967

### Academic Advisor:

Jesus Gonzalez      SCC-G147      972.578.5562

### Program Options:

**Certificate - Early Childhood Educator**

**Certificate - Infant and Toddler Educator**

Collin's Child Development-Early Childhood program has received accreditation from the National

Association for the Education of Young Children (NAEYC). It is the only program in Texas to have NAEYC accreditation and to also hold Exemplary Status with the Texas Higher Education Coordinating Board. The Child Development A.A.S. degree and child development and child development-early childhood certificate programs are designed to prepare individuals for entry-level and administrative positions working with young children and their families. The coursework can also be applicable as in-service training for teachers, administrators, nannies, family day home providers and information for parents. 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 and may need to look into the A.A.T. degree. 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:

*Note 1: TECA is the prefix for transfer courses.*

*Note 2: All CDEC and TECA courses, except TECA-1354, require the student to complete a one-hour lab component.*

### 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, students must complete a mandatory child development-early childhood-education orientation,

and provide paperwork necessary to begin class, including, but not limited to, 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

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

## Certificate - Early Childhood Educator

*(This program covers Special Education from Infancy through the School-Age child)*

28 credit hours

### First Semester

CDEC	1319	Child Guidance <sup>1</sup>
CDEC	1323	Observation and Assessment <sup>1</sup>
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*

## Certificate - Infant and Toddler Educator

25 credit hours

### First Semester

CDEC	1321	The Infant and Toddler
CDEC	1323	Observation and Assessment <sup>1</sup>
CDEC	2304	Child Abuse and Neglect
TECA	1303	Family, School, and Community
TECA	1311	Educating Young Children

### Second Semester

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

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

## Computer-Aided Drafting and Design

### Program Director:

Dave Galley                      PRC-H213      972.377.1676

### Faculty Contact:

Warner Richeson                PRC-H114      972.377.1689

### Academic Advisor:

PRC-F134      972.377.1780

### Program Options:

**AAS - Computer-Aided Drafting and Design**

**Certificate - Computer-Aided Drafting and Design**

**Certificate - Mechanical Computer-Aided Drafting and Design**

**Enhanced Skills Certificate - CADD**

**MSAA - AutoCAD**

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.

## AAS – Computer-Aided Drafting and Design

64 credit hours

### FIRST YEAR

#### First Semester

DFTG	1305	Technical Drafting <sup>1</sup>
DFTG	1309	Basic Computer-Aided Drafting <sup>1</sup>
ENGL	1301	Composition / Rhetoric I
MATH	1314	College Algebra <sup>2</sup>
SPCH	1311	Fundamentals of Communication (See other Speech Core Options)

#### Second Semester

CETT	1403	DC Circuits
DFTG	2319	Intermediate Computer-Aided Drafting <sup>1</sup>
MATH	1316	Trigonometry
PHED / DANC		Any activity course (See PHED / DANC Core Options)
ELECTIVE*		

#### Summer

DFTG	1333	Mechanical Drafting
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### SECOND YEAR

#### First Semester

DFTG	2328	Architectural Drafting – Commercial
DFTG	2332	Advanced Computer-Aided Drafting
ENTC	1323	Strength of Materials
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
PHYS	1401	General Physics I

### Second Semester

DFTG	2336	Computer-Aided Drafting Programming (Capstone)
DFTG	2381	Cooperative Education - Drafting and Design Technology / Technician, General
ECON	1301	Introduction to Economics (See other Social / Behavioral Science Core Options)
PHYS	1402	General Physics II
ELECTIVE *		

1. Tech Prep course which may have been completed in high school
  2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419
- \* Electives (6 credit hours): ARCE-1352, ARCE-2352, BUSI-1301, DFTG-1317, DFTG-1345, DFTG-1358, DFTG-1371, DFTG-1380, DFTG-2300, DFTG-2312, DFTG-2321, DFTG-2335, or ENGL-2311

## Certificate - Computer-Aided Drafting and Design

30 credit hours

### FIRST YEAR

#### First Semester

DFTG	1309	Basic Computer-Aided Drafting <sup>1</sup>
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#### 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 and Presentation
DFTG	2332	Advanced Computer-Aided Drafting
ELECTIVE*		



**Second Semester**

DFTG 2328	Architectural Drafting – Commercial
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-1333, DFTG-1345, DFTG-1358, DFTG-1380, DFTG-2300, DFTG-2321, DFTG-2335, DFTG-2350, or DFTG-2381*

**Certificate - Mechanical Computer-Aided Drafting and Design**

30 credit hours

**FIRST YEAR****First Semeste**

DFTG 1305	Technical Drafting 1
DFTG 1309	Basic Computer-Aided Drafting 1

**Second Semester**

DFTG 1333	Mechanical Drafting
DFTG 2319	Intermediate Computer-Aided Drafting <sup>1</sup>
ENTC 1323	Strength of Materials

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

DFTG 1345	Parametric Modeling and Design
DFTG 1371	Mechanical Drafting - Fundamentals of Sheetmetal Design
DFTG 2350	Geometric Dimensioning and Tolerancing

**Second Semester**

DFTG 2335	Advanced Technologies in Mechanical Design and Drafting (Capstone)
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ELECTIVE \*

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

\* *Electives (3 credit hours): ARCE-1352, DFTG-1317, DFTG-1358, DFTG-1380, DFTG-2321, DFTG-2328, DFTG-2332, DFTG-2336, or DFTG-2381*

**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. Completion of the AAS in Computer-Aided Drafting and Design.

**First Semester**

DFTG 1345	Parametric Modeling and Design
DFTG 1333	Mechanical Drafting
DFTG 2312	Technical Illustration and Presentation

**MSSA – AutoCAD <sup>1</sup>**

12 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.

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

DFTG 1309	Basic Computer-Aided Drafting <sup>2</sup>
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**Second Semester**

DFTG 2319	Intermediate Computer-Aided Drafting <sup>2</sup>
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**SECOND YEAR****First Semester**

DFTG 2332	Advanced Computer-Aided Drafting
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**Second Semester**

DFTG 2336	Computer-Aided Drafting Programming (Capstone)
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1. *Some of the courses in these award programs may require prerequisites. Please check the course descriptions.*

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

## Computer Networking Technology

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### Program Director:

Dave Galley                    PRC - H213    972.377.1676

### Academic Advisor:

PRC - F134    972.377.1780

### Program Options:

**AAS - Computer Networking Technology**

**AAS - Cisco Systems Networking Specialization Certificate - Advanced Cisco Systems Networking (CCNP)**

**Certificate - Computer Networking Technology Software (MCSA)**

**Certificate - Computer Networking Technology Advanced Software (MCSE) Specialization**

**MSAA - Cisco Systems Networking (CCNA)**

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.

## AAS – Computer Networking Technology

69 credit hours

### FIRST YEAR

#### First Semester

ENGL 1301    Composition / Rhetoric I  
ITMT 1300    Implementing and Supporting  
                  Microsoft Windows XP Professional

ITMT 1440    Managing and Maintaining a  
                  Microsoft Windows Server 2003  
                  Environment  
ITNW 1358    Network +  
MATH 1314    College Algebra <sup>1</sup>  
PHED / DANC    Any activity course  
                  (See PHED / DANC Core Options)

### Second Semester

CPMT 1405    IT Essentials I: PC Hardware and  
                  Software  
ITCC 1301    CCNA 1 Cisco Exploration 1 -  
                  Network Fundamentals  
ITMT 1450    Implementing, Managing, and  
                  Maintaining a Microsoft Windows  
                  Server 2003 Network Infrastructure:  
                  Network Services  
ITSC 1316    Linux Installation and Configuration

### Summer

ECON 1301    Introduction to Economics  
                  (See other Social / Behavioral  
                  Science Core Options)  
ITCC 1304    CCNA 2 Cisco Exploration 2 -  
                  Routing Protocols and Concepts

### 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  
SPCH 1311    Fundamentals of Speech  
                  Communication  
                  (See other Speech Core Options)

ELECTIVE \*

## Second Semester

HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
ITMT	2440	Designing Security for Microsoft Networks
ITSY	2300	Operating System Security (Capstone)

ELECTIVE \*

ELECTIVE \*

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1. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419

\* Electives (11 credit hours): Any ITCC, ITMT, ITNW, or ITSY course not listed above with approval of Program Director

Note: Many ITCC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions.

## AAS – Cisco Systems Networking Specialization

69 credit hours

### FIRST YEAR

#### First Semester

ENGL	1301	Composition / Rhetoric I
ITCC	1301	CCNA 1 Cisco Exploration 1 – Network Fundamentals
ITCC	1304	CCNA 2 Cisco Exploration 2 – Routing Protocols and Concepts
ITNW	1358	Network +
MATH	1314	College Algebra <sup>1</sup>

#### Second Semester

CPMT	1405	IT Essentials I: PC Hardware and Software
ITCC	2308	CCNA 3 Cisco Exploration 3 - LAN Switching and Wireless
ITCC	2310	CCNA 4 Cisco Exploration 4 – Accessing the WAN
ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment

## Summer

ECON	1301	Introduction to Economics (See other Social / Behavioral Science Core Options)
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)

## Second Year

### First Semester

ITCC	2471	CCNP ROUTE: Implementing Cisco IP Routing
ITCC	2472	CCNP SWITCH: Implementing Cisco IP Switching
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services
ITSY	2300	Operating System Security
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

### Second Semester

ITCC	2470	Cisco CCNA Security
ITCC	2473	CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks
ITNW	2474	Advanced Computer Networking Case Study (Capstone)
PHED / DANC		Any activity course (See PHED / DANC Core Options)

ELECTIVE\*

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1. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419

\* Electives (3-5 credit hours): CPMT-2302, EECT-1371, ITNW-2473 (Recommended), ITSY-2301, ITSY-2341, ITSY-2342, ITSY-2343, or ITSY-2572

Note: Many ITCC, ITMT, ITNW, and ITSY courses are offered in eight-week sessions.

## Certificate - Advanced Cisco Systems Networking (CCNP)

28 credit hours

### FIRST YEAR

#### First Semester

ITCC	1301	CCNA 1 Cisco Exploration 1 – Network Fundamentals
ITCC	1304	CCNA 2 Cisco Exploration 2 – Routing Protocols and Concepts

#### Second Semester

ITCC	2308	CCNA 3 Cisco Exploration 3 – LAN Switching and Wireless
ITCC	2310	CCNA 4 Cisco Exploration 4 – Accessing the WAN

### SECOND YEAR

#### First Semester

ITCC	2471	CCNP ROUTE: Implementing Cisco IP Routing
ITCC	2472	CCNP SWITCH: Implementing Cisco IP Switching

#### Second Semester

ITCC	2473	CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks (Capstone)
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#### ELECTIVE \*

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\* Elective \* (4 credit hours): ITCC-2470, ITNW-2473 or ITNW-2474

Note: Many ITCC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions.

## Certificate - Computer Networking Technology Software (MCSA)

18 credit hours

### FIRST YEAR

#### First Semester

ITMT	1300	Implementing and Supporting Microsoft Windows XP Professional
ITNW	1358	Network +

### Second Semester

ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services

#### ELECTIVE \*

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\* Elective (4 credit hours): ITMT-2403, ITMT-2440 or ITMT-2450

Note: Many ITCC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions.

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

29 credit hours

### First Semester

ITMT	1300	Implementing and Supporting Microsoft Windows XP Professional
ITNW	1358	Network+
ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services

### 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 \*

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\* Elective (3 credit hours): Any ITCC, ITMC, ITMT, ITNW, or ITSY course not listed above with approval of Program Director

Note: All ITCC, ITMC, ITMT, ITNW and ITSY courses are offered in eight-week express sessions.

## MSAA – Cisco Systems Networking (CCNA)

12 credit hours

ITCC	1301	CCNA 1 Cisco Exploration 1 - Network Fundamentals
ITCC	1304	CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts
ITCC	2308	CCNA 3 Cisco Exploration 3 - LAN Switching and Wireless
ITCC	2310	CCNA 4 Cisco Exploration 4 – Accessing the WAN

*Note 1: Many ITCC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions*

*Note 2: Some of the courses in this award program may require prerequisites. Please check the course descriptions.*

## Computer Systems

### Department Chair:

Susan Mahon                      PRC-H230C    972.377.1688

### Academic Advisor:

PRC-F134                      972.377.1780

### Program Options:

#### AAS - Computer Systems

*Computer Support Track*

*Database Development Track*

*Information System Track*

*C++ Software Development Track*

*Java Software Development Track*

#### AAS - Geographic Information Systems (GIS)

##### Specialization

##### Certificate - Computer Systems

*Computer Support Track*

*Database Development Track*

*Information System Track*

##### Certificate - Software Design

*C++ Track*

*Java Track*

##### Certificate - Geographic Information Systems (GIS)

##### Specialization

##### MSAA - Computer Applications

##### MSAA - Database Applications

Computer Systems is an exciting field that presents many opportunities for a student who is proficient in both applications and software development. 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.

Many career opportunities are available in the software development area. The computer programming specializations in this AAS degree along with the certifications enable students to update their skill sets to keep up with the latest technical competencies in computer programming using C++ and Java. After completing one or more certificates, students can continue at Collin and receive an AAS degree with a specialization in computer programming using either C++ or Java.

This degree program offers tracks in information systems, computer support, software development and database development. Areas of study include business applications, business programming, management skills, database programming, computer applications, and technical skills. The degree can provide a broad business background and professional skills needed to succeed in a career in computer information systems and software development.

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 toward an AAS degree in Computer 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.

Students planning to transfer to another 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 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.

## AAS – Computer Systems

This degree has five tracks. Students must select one of the following tracks and complete its technical courses listed below:

### Computer Support Track

63 credit hours

#### First Year

##### First Semester

COSC	1315	Fundamentals of Programming <sup>1</sup>
ENGL	1301	Composition / Rhetoric I
ITSE	1311	Beginning Web Programming
ITSW	1307	Introduction to Database - Access
MATH	1314	College Mathematics <sup>2</sup>

##### Second Semester

CPMT	1405	IT Essentials I: PC Hardware and Software
ENGL	2311	Technical and Business Writing
ITNW	1358	Network+
ITSC	1305	Introduction to PC Operating Systems
ITSW	1304	Introduction to Spreadsheets - Excel

#### Second Year

##### First Semester

ECON	1301	Introduction to Economics <sup>3</sup>
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
IMED	1301	Introduction to Digital Media
ITSY	1400	Fundamentals of Information Security (Security+)
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

##### Second Semester

BMGT	1307	Team Building <sup>4</sup>
ITSC	2339	Personal Computer Help Desk Support (Capstone) <sup>5</sup>
ITSE	1301	Web Design Tools – Graphics <sup>6</sup>
ITSE	2313	Web Authoring – Dreamweaver <sup>7</sup>
PHED / DANC		Any activity course (See PHED / DANC Core Options)

#### GENERAL ELECTIVE \*

1. May substitute BCIS-1320 or ITSE-1332
2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419
3. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
4. May substitute BMGT-1344
5. May substitute ITSC-2380

6. May substitute GRPH-1359 or IMED-1345

7. May substitute GISC-1311

\* General Elective (3 credit hours): Any BCIS, COSC, GISC, IMED, ITSC, ITSE, ITSW, or ITSY course not listed above, excluding ITSC-1380, ITSE-1380, ITSE-2380, or ITSW-1380

### Database Development Track

61 credit hours

#### First Year

##### First Semester

ENGL	1301	Composition / Rhetoric I
ITSE	1311	Beginning Web Programming
ITSE	1332	Introduction to Visual Basic .NET Programming
ITSW	1307	Introduction to Database - Access
MATH	1314	College Algebra <sup>1</sup>

##### Second Semester

ENGL	2311	Technical and Business Writing
ITSE	1330	Introduction to C# Programming
ITSE	1356	Extensible Markup Language (XML)
ITSE	2309	Database Programming - SQL
ITSW	1304	Introduction to Spreadsheets - Excel

#### Second Year

##### First Semester

ECON	1301	Introduction to Economics <sup>2</sup>
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
ITNW	1358	Network+
ITSE	2338	C# Database Development with ADO.NET & LINQ
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

##### Second Semester

BMGT	1307	Team Building <sup>3</sup>
IMED	1341	Interface Design <sup>4</sup>
IMED	2309	Internet Commerce
INEW	2330	Comprehensive Software Project: Planning and Design (Capstone) <sup>5</sup>
ITSE	2354	Advanced Oracle PL/SQL
PHED / DANC		Any activity course (See PHED / DANC Core Options)

#### GENERAL ELECTIVE \*

1. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419

- 2 May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
- 3 May substitute BMGT-1341 or BMGT-1344
- 4 May substitute IMED-2345, INEW-2334, ITSE-1306, ITSE-1371, ITSE-1392, or ITSE-2302
- 5 May substitute ITSC-2380

## Information System Track

62 credit hours

### First Year

#### First Semester

BCIS	1305	Business Computer Applications
ENGL	1301	Composition / Rhetoric I
ITSE	1311	Beginning Web Programming
ITSW	1307	Introduction to Database - Access
MATH	1314	College Algebra <sup>1</sup>

#### Second Semester

COSC	1315	Fundamentals of Programming <sup>2</sup>
ENGL	2311	Technical and Business Writing
GISC	1311	Introduction to Geographic Information Systems (GIS)
ITNW	1358	Network+
ITSW	1304	Introduction to Spreadsheets - Excel

### Second Year

#### First Semester

BMGT	1307	Team Building <sup>3</sup>
ECON	1301	Introduction to Economics <sup>4</sup>
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
ITSE	1332	Introduction to Visual Basic .NET Programming <sup>5</sup>
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

#### Second Semester

BCIS	2390	Systems Analysis and Design (Capstone) <sup>6</sup>
BMGT	1344	Negotiations and Conflict Management <sup>7</sup>
ITSC	1305	Introduction to PC Operating Systems <sup>8</sup>
ITSE	2309	Database Programming – SQL <sup>9</sup>
ITSY	1400	Fundamentals of Information Security (Security +)
PHED / DANC		Any activity course (See PHED / DANC Core Options)

1. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318,

MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419

2. May substitute BCIS-1320 or COSC-1436
3. May substitute BMGT-1341 or BUSI-1301
4. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
5. May substitute COSC-1330, COSC-1337, or ITSE-1347
6. May substitute INEW-2330 or ITSC-2380
7. May substitute BMGT-1327
8. May substitute CPMT-1405
9. May substitute ITSE-1356

## C++ Software Development Track

63 credit hours

### First Year

#### First Semester

COSC	1436	Programming Fundamentals I - C++
ENGL	1301	Composition / Rhetoric I
ITSE	1311	Beginning Web Programming
ITSW	1307	Introduction to Database - Access
MATH	1314	College Algebra <sup>1</sup>

#### Second Semester

BMGT	1307	Team Building <sup>2</sup>
COSC	1437	Programming Fundamentals II - C++
COSC	2325	Computer Organization and Machine Language
ENGL	2311	Technical and Business Writing
ITSW	1304	Introduction to Spreadsheets - Excel

### Second Year

#### First Semester

COSC	2336	Programming Fundamentals III - C++
ECON	1301	Introduction to Economics <sup>3</sup>
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
ITSE	1330	Introduction to C# Programming <sup>4</sup>
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

#### Second Semester

INEW	2330	Comprehensive Software Project: Planning and Design (Capstone) <sup>5</sup>
INEW	2340	Object-Oriented Design
ITSE	2301	Windows Programming Using C++
PHED / DANC		Any activity course (See PHED / DANC Core Options)

TECHNICAL ELECTIVE \*

TECHNICAL ELECTIVE \*

1. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318,

MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419

2. May substitute BMGT-1327, BMGT-1341, BMGT-1344, BUSG-2309, or BUSI-1301
3. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
4. May substitute ITSE-1371 or ITSE-1391
5. May substitute ITSC-2380
- \* Technical Electives (6 credit hours): Any COSC, GAME, INEW, or ITSE course not listed above, excluding any Cooperative Education or Software Project courses

MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419

3. May substitute BMGT-1327, BMGT-1341, BMGT-1344, BUSG-2309, or BUSI-1301
4. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
5. May substitute ITSE-1371 or ITSE-1391
6. May substitute ITSC-2380
- \* Technical Electives (6 credit hours): Any COSC, GAME, INEW, or ITSE course not listed above, excluding any Cooperative Education or Software Project courses

## Java Software Development Track

63 credit hours

### First Year

#### First Semester

COSC	1436	Programming Fundamentals I – C++ <sup>1</sup>
ENGL	1301	Composition / Rhetoric I
ITSE	1311	Beginning Web Programming
ITSW	1307	Introduction to Database - Access
MATH	1314	College Algebra <sup>2</sup>

#### Second Semester

BMGT	1307	Team Building <sup>3</sup>
COSC	1337	Programming Fundamentals II - Java
ENGL	2311	Technical and Business Writing
ITSE	2309	Database Programming - SQL
ITSW	1304	Introduction to Spreadsheets - Excel

### Second Year

#### First Semester

COSC	2436	Programming Fundamentals III - Java
ECON	1301	Introduction to Economics <sup>4</sup>
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
ITSE	1330	Introduction to C# Programming <sup>5</sup>
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

#### Second Semester

INEW	2330	Comprehensive Software Project: Planning and Design (Capstone) <sup>6</sup>
INEW	2338	Advanced Java Programming
INEW	2340	Object-Oriented Design
PHED / DANC		Any activity course (See PHED / DANC Core Options)

TECHNICAL ELECTIVE \*

TECHNICAL ELECTIVE \*

1. May substitute COSC-1315
2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318,

## AAS – Geographic Information Systems (GIS) Specialization

61 credit hours

### First Year

#### First Semester

BCIS	1305	Business Computer Applications
ENGL	1301	Composition / Rhetoric I
GISC	1311	Introduction to Geographic Information Systems (GIS)
ITSW	1307	Introduction to Database - Access
MATH	1314	College Algebra <sup>1</sup>

#### Second Semester

GISC	2420	Intermediate Geographic Information Systems (GIS)
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
IMED	1301	Introduction to Digital Media
ITSE	1311	Beginning Web Programming
PHED / DANC		Any activity course (See PHED / DANC Core Options)

### Summer

ENGL	2311	Technical and Business Writing
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

### Second Year

#### First Semester

COSC	1315	Fundamentals of Programming <sup>2</sup>
ECON	1301	Introduction to Economics <sup>3</sup>
IMED	2309	Internet Commerce
ITNW	1358	Network+
ITSW	1304	Introduction to Spreadsheets - Excel



## Second Semester

BCIS	2390	Systems Analysis and Design
GISC	2231	Advanced Problems in Geographic Information Systems (GIS) (Capstone)
ITSY	2300	Operating System Security
ELECTIVE *		

1. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419
  2. May substitute COSC-1436 or ITSE-1332
  3. May substitute ECON-2301 or ECON-2302
- \* Elective (3 credit hours): Any COSC, IMED, ITSC, ITSE, ITSW, or ITSY course not listed above, excluding ITSC-1380, ITSE-1380, ITSE-2380, ITSW-1380, or ITSW-2380

## Certificate – Computer Systems

This certificate has three tracks. Students must select one of the following tracks and complete its technical courses listed below:

### Computer Support Track

23 credit hours

#### Summer Semester

BCIS	1305	Business Computer Applications <sup>1</sup>
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#### First Semester

ITNW	1358	Network+
ITSW	1304	Introduction to Spreadsheets – Excel <sup>2</sup>
ITSC	1305	Introduction to PC Operating Systems

#### Second Semester

CPMT	1405	IT Essentials I: PC Hardware and Software <sup>3</sup>
ITSC	2339	Personal Computer Help Desk Support (Capstone) <sup>4</sup>
ITSY	1400	Fundamentals of Information Security (Security+)

1. May substitute BCIS-1320, COSC-1315, or ITSE-1332
2. May substitute ITSW-1307
3. May substitute IMED-1301
4. May substitute ITSC-2380

## Database Development Track

21 credit hours

#### Summer Semester

ITSE	1332	Introduction to Visual Basic .NET Programming
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#### First Semester

ITSE	1330	Introduction to C# Programming
ITSE	2309	Database Programming - SQL
ITSW	1307	Introduction to Databases – Access

#### Second Semester

INEW	2330	Comprehensive Software Project: Planning and Design <sup>1</sup>
ITSE	2304	Visual Basic .NET Database Development with ADO.NET <sup>2</sup>
ITSE	2354	Advanced Oracle PL/SQL

1. May substitute ITSC-2380
2. May substitute ITSE-2338

## Information System Track

21 credit hours

#### Summer Semester

BCIS	1305	Business Computer Applications <sup>1</sup>
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#### First Semester

COSC	1315	Fundamentals of Programming <sup>2</sup>
ITSW	1304	Introduction to Spreadsheets - Excel
ITSW	1307	Introduction to Databases – Access

#### Second Semester

BCIS	2390	Systems Analysis and Design (Capstone) <sup>3</sup>
BMGT	1307	Team Building <sup>4</sup>
ITSC	1305	Introduction to PC Operating Systems <sup>5</sup>

1. May substitute BCIS-1320, COSC-1315, or ITSE-1332
2. May substitute BCIS-1320, COSC-1436, or ITSE-1332. May substitute COSC-1337, COSC-1437, ITSE-1330, or ITSE-1347 with consent of Department Chair.
3. May substitute ITSC-2380
4. May substitute BMGT-1327, BMGT-1341, BMGT-1344, BUSG-2309, or BUSI-1301
5. May substitute CPMT-1405 or ITSY-1400

## Certificate – Software Design

This certificate has two tracks. Students must select one of the following tracks and complete its technical courses listed below:

### C++ Track

29 credit hours

#### Summer Semester

COSC 1436 Programming Fundamentals I - C++

#### First Semester

COSC 1437 Programming Fundamentals II - C++

COSC 2325 Computer Organization and Machine Language

TECHNICAL ELECTIVE \*

#### Second Semester

COSC 2336 Programming Fundamentals III - C++

INEW 2340 Object-Oriented Design

ITSE 2301 Windows Programming Using C++

#### Summer Semester

INEW 2330 Comprehensive Software Project: Planning and Design <sup>1</sup>

TECHNICAL ELECTIVE \*

1. May substitute ITSC-2380

\* Technical Elective (6 credit hours): Any COSC, GAME, INEW, or ITSE course not listed above, excluding any Cooperative Education or Software Project courses

### Java Track

28 credit hours

#### Summer Semester

COSC 1315 Fundamentals of Programming <sup>1</sup>

#### First Semester

COSC 1337 Programming Fundamentals II - Java

TECHNICAL ELECTIVE \*

TECHNICAL ELECTIVE \*

#### Second Semester

COSC 2436 Programming Fundamentals III - Java

INEW 2340 Object-Oriented Design

ITSE 2309 Database Programming – SQL

#### Summer Semester

INEW 2330 Comprehensive Software Project: Planning and Design <sup>2</sup>

TECHNICAL ELECTIVE \*

1. May substitute COSC-1436

2. May substitute ITSC-2380

\* Technical Elective (9 credit hours): Any COSC, GAME, INEW, or ITSE course not listed above, excluding any Cooperative Education or Software Project courses

## Certificate – Geographic Information Systems (GIS) Specialization

18 credit hours

#### First Semester

BCIS 1305 Business Computer Applications

GISC 1311 Introduction to Geographic Information Systems (GIS)

ITSW 1307 Introduction to Database – Access

#### Second Semester

BCIS 2390 Systems Analysis and Design

GISC 2420 Intermediate Geographic Information Systems (GIS)

#### Third Semester

GISC 2231 Advanced Problems in Geographic Information Systems (GIS) (Capstone)

## MSSA – Computer Applications

9 credit hours

BCIS 1305 Business Computer Applications

ITSW 1304 Introduction to Spreadsheets - Excel

ITSW 1307 Introduction to Database - Access

Note: Some of the courses in these award programs may require prerequisites. Please check the course descriptions

## MSSA – Database Applications

9 credit hours

ITSE 1356 Extensible Markup Language (XML)

ITSE 2309 Database Programming - SQL

ITSW 1307 Introduction to Database – Access

Note: Some of the courses in these award programs may require prerequisites. Please check the course descriptions

## Convergence Technology

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### Program Director:

Dave Galley      PRC-H213      972.377.1676

### Faculty Advisor:

Pete Brierley      PRC-H230E      972.377.1686

### Academic Advisor:

PRC-F134      972.377.1780

### Convergence Technology Center Website:

[www.convergencetechnologycenter.org](http://www.convergencetechnologycenter.org)

### Program Options:

#### AAS - Convergence Technology

#### Certificate - Convergence Technology

#### Certificate - IP Specialization

#### MSAA - Home Technology Integration (HTI) Expert

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.

## AAS – Convergence Technology

71 credit hours

### FIRST YEAR

#### First Semester

CPMT	1405	IT Essentials I: PC Hardware and Software <sup>1</sup>
EECT	1407	Convergence Technologies
ITCC	1301	CCNA 1 Cisco Exploration 1 - Network Fundamentals <sup>1</sup>
ITCC	1304	CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts <sup>1</sup>
MATH	1314	College Algebra <sup>2</sup>

#### Second Semester

ENGL	1301	Composition / Rhetoric I
ITCC	2308	CCNA 3 Cisco Exploration 3 - LAN Switching and Wireless <sup>1</sup>
ITCC	2310	CCNA 4 Cisco Exploration 4 – Accessing the WAN1
ITMT	1300	Implementing and Supporting Microsoft Windows XP Professional
ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
PHED / DANC		Any activity course (See PHED / DANC Core Options)

#### Summer

ECON	2301	Principles of Macroeconomics (See other Social / Behavioral Science Core Options)
EECT	1371	Voice-over-Internet Protocol (CCNA Voice)

## SECOND YEAR

### First Semester

CPMT	2302	Digital Home Technology Integration
EECT	2337	Wireless Telephony Systems
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure Network Services
SPCH	1321	Business and Professional Speaking (See other Speech Core Options)
ELECTIVE *		

### Second Semester

HUMA	1301	Introduction to the Humanities (Other Humanities / Fine Arts Core Options)
ITNW	2346	Small Office Home Office: Case Study I (Capstone)
ITNW	2473	Information Storage Management (EMC)
ITSC	1316	Linux Installation and Configuration
ITSY	2300	Operating System Security

1 Tech Prep course which may have been completed in high school

2 May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419

\* Elective (3 credit hours): EECT-1380 (with consent of Program Director), EECT-2375, ITNW-1380 (with consent of Program Director), or ITNW-2350

## Certificate - Convergence Technology

19 credit hours

### FIRST YEAR

#### First Semester

EECT	1407	Convergence Technologies
ITCC	1301	CCNA 1 Cisco Exploration 1 - Network Fundamentals <sup>1</sup>
ITCC	1304	CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts <sup>1</sup>

#### Second Semester

EECT	1371	Voice-over-Internet Protocol (CCNA Voice)
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EECT	2337	Wireless Telephony Systems
CAPSTONE		
EECT	1380	Cooperative Education – Electrical, Electronic and Communications Engineering Technology /Technician (with consent of Program Director),
EECT	2375	Advanced VoIP
ITNW	1380	Cooperative Education – Computer Systems Networking and Telecommunications (with consent of Program Director)
ITNW	2350	Enterprise Network: Case Study II

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

Note: Many CPMT, EECT, ITCC, ITMT, ITNW (except ITNW-2346 and ITNW-2350), and ITSY courses are offered in eight-week express sessions.

## Certificate - IP Specialization

36 credit hours

### FIRST YEAR

#### First Semester

CPMT	1405	IT Essentials I: PC Hardware and Software <sup>1</sup>
EECT	1407	Convergence Technologies
ITCC	1301	CCNA 1 Cisco Exploration 1 - Network Fundamentals <sup>1</sup>
ITCC	1304	CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts <sup>1</sup>

#### Second Semester

EECT	1371	Voice-over-Internet Protocol (CCNA Voice)
EECT	2337	Wireless Telephony Systems
ITMT	1300	Implementing and Supporting Microsoft Windows XP Professional
ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
ITSC	1316	Linux Installation and Configuration

#### Summer

ITSY	2300	Operating System Security
CAPSTONE		
EECT	2373	Case Study III: Advanced VoIP Systems Design
EECT	2375	Advanced VoIP

ITNW 2346 Small Office Home Office: Case Study I

ITNW 2350 Enterprise Network: Case Study II

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

Note: Many CPMT, EECT, ITCC, ITMT, ITNW (except ITNW-2346 and ITNW-2350), and ITSY courses are offered in eight-week express sessions.

## MSAA – Home Technology Integration (HTI) Expert

9 credit hours

CPMT 2302 Digital Home Technology Integration

CPMT 2371 Advanced Home Technology Integration

ELECTIVE \*

\* Elective (3 credit hours): EECT-1371, EECT-2437, ITNW-2346, ITNW-2350

Note 1: Some of the courses in this award program may require prerequisites. Please check the course descriptions.

Note 2: Many CPMT, EECT, ITCC, ITMT, ITNW (except ITNW-2346 and ITNW-2350), and ITSY courses are offered in eight-week express sessions.-

## Culinary Arts

### Department Chair:

Karen Musa PRC-L229 972.377.1672

### Academic Advisor:

Tom Bailey PRC-F131 972.377.1771

Debra Lamb SCC-G141 972.881.5165

### Program Options:

AAS - Culinary Arts

AAS - Pastry Arts Specialization

Certificate - Culinary Arts

Certificate - Pastry Arts

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

CHEF 1305 Sanitation and Safety <sup>1,2</sup>

ENGL 1301 Composition/Rhetoric I

HAMG 1321 Introduction to Hospitality Industry

IFWA 1310 Nutrition and Menu Planning

#### Second Semester

CHEF 1341 American Regional Cuisine

CHEF 2302 Saucier

CHEF 2331 Advanced Food Preparation

HUMA 1301 Introduction to the Humanities (See other Humanities / Fine Arts Core Options)

RSTO 1325 Purchasing for Hospitality Operations

**Summer**

CHEF	1302	Principles of Healthy Cuisine
HAMG	1319	Computers in Hospitality
MATH	1332	College Mathematics <sup>3</sup>

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

CHEF	1310	Garde Manger
CHEF	1345	International Cuisine
ECON	1301	Introduction to Economics (See other Social / Behavioral Science Core Options)
HAMG	1324	Hospitality Human Resources Management
PSTR	1301	Fundamentals of Baking

**Second Semester**

CHEF	1314	A La Carte Cooking
CHEF	2380	Cooperative Education – Culinary Arts/ Chef Training (Capstone)
PHED / DANC		Any activity course (See PHED / DANC Core Options)
RSTO	1304	Dining Room Service
SPCH	1321	Business and Professional Speaking (See other Speech Core Options)

**ELECTIVE \***

- 
1. Certification in ServSafe
  2. Certification in Food Protection Management
  3. May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- \* Elective (3 credit hours): CHEF 2341, IFWA 1319, RSTO 1301 (must be 21 or older), or any HAMG, PSTR, or TRVM course not listed above

**AAS – Pastry Arts Specialization**

70 credit hours

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

CHEF	1301	Basic Food Preparation
CHEF	1305	Sanitation and Safety <sup>1,2</sup>
ENGL	1301	Composition/Rhetoric I
HAMG	1321	Introduction to Hospitality Industry
PSTR	1301	Fundamentals of Baking

**Second Semester**

HAMG	1324	Hospitality Human Resources Management
HUMA	1301	Introduction to the Humanities

(See other Humanities / Fine Arts  
Core Options)  
 IFWA 1310 Nutrition and Menu Planning  
 PSTR 1305 Breads and Rolls  
 RSTO 1325 Purchasing for Hospitality  
 Operations

**Summer**

HAMG	1319	Computers in Hospitality
MATH	1332	College Mathematics <sup>3</sup>
PSTR	1306	Cake Decorating I

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

ECON	1301	Introduction to Economics (See other Social / Behavioral Science Core Options)
PSTR	1310	Pies, Tarts, Teacakes, and Cookies
PSTR	1312	Laminated Dough, Pate a Choux, and Donuts
PSTR	1340	Plated Desserts
PSTR	2307	Cake Decorating II

**Second Semester**

PHED/DANC		Any activity course (See PHED/DANC Core Options)
PSTR	2301	Chocolates and Confections
PSTR	2331	Advanced Pastry Shop
PSTR	2380	Cooperative Education - Baking and Pastry Arts/Baker/Pastry Chef (Capstone)
SPCH	1321	Business and Professional Speaking (See other Speech Core Options)

**ELECTIVE\***

- 
1. Certification in ServSafe
  2. Certification in Food Protection Management
  3. May substitute MATH 1324 or MATH 1314 (recommended for transfer students)
- \* Elective (3 credit hours): CHEF-2341, PSTR-1391, PSTR-2350, RSTO-1301 (must be 21 or older), or any CHEF, HAMG, TRVM course not listed above

**Certificate – Culinary Arts**

24 credit hours

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

CHEF	1301	Basic Food Preparation <sup>1</sup>
CHEF	1305	Sanitation and Safety <sup>1,2</sup>
IFWA	1310	Nutrition and Menu Planning
PSTR	1301	Fundamentals of Baking

**Second Semester**

CHEF	1341	American Regional Cuisine
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CHEF	1345	International Cuisine
CHEF	2331	Advanced Food Preparation (Capstone)

**ELECTIVE \***

1. *Certification in ServSafe*
  2. *Certification in Food Protection Management*
- \* *Elective (3 credit hours) IFWA 1319, RSTO 1301 (must be 21 or older) or any CHEF, HAMG, PSTR, TRVM course not listed above*

## Certificate – Pastry Arts

24 credit hours

### FIRST YEAR

#### First Semester

CHEF	1301	Basic Food Preparation
CHEF	1305	Sanitation and Safety <sup>1,2</sup>
IFWA	1310	Nutrition and Menu Planning
PSTR	1301	Fundamentals of Baking

#### Second Semester

PSTR	1312	Laminated Dough, Pate a Choux, and Donuts
PSTR	1340	Plated Desserts
PSTR	2331	Advanced Pastry Shop (Capstone)

**ELECTIVE \***

1. *Certification in ServSafe*
  2. *Certification in Food Protection Management*
- \* *Elective (3 credit hours): PSTR- 1305, PSTR-1306 or PSTR-1391*

## Dental Hygiene

### Program Director:

Susan Moss                      CPC-A120      972.548.6535

### Academic Advisor:

Erin Darity                      CPC-D117F      972.548.6778

### Program Options:

#### AAS - Dental Hygienist

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 standard 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 / standard 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 the Collin College 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 Dental Hygiene Program Director or dental hygiene website at <http://ftp.collin.edu/dentalhygiene/>.

- \* 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 State Health Services (TDSHS). 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.
- \* 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

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 Dental Hygiene Department at 972.548.6535.

## **AAS – Dental Hygienist**

72 credit hours

### **Pre-Entrance Requirements**

BIOL	2401	Anatomy and Physiology I <sup>1</sup>
BIOL	2402	Anatomy and Physiology II
CHEM	1405	Introduction to Chemistry I – <b>OR</b> – CHEM-1411 General Chemistry I

### **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>1</sup>

## 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 (See other Humanities / Fine Arts Core Options)
SOCI 1301	Introduction to Sociology

*1. No course substitutions*

*Note: The communication competency is met throughout the degree.*

## Digital Video

*Also see Animation and Game Art*

### Department Chair:

Laura Flores                      SCC - K241    972.578.5527

### Academic Advisors:

John Ciccia                        SCC - G148    972.578.5563  
 Torrey West                        PRC - F132    972.377.1513

### Program Options:

#### AAS - Digital Video

#### Certificate - Digital Video

For over twenty years, the Communication Design department (formerly Applied Graphic Design Technology) at Collin has offered industry-standard education in the creative service fields of animation,

digital video, graphic design, web and interactive design. All full-time faculty have industry experience and all associate faculty are practicing professionals. Current industry practices and standards are a central component of classroom instruction. There is an elective option for the most diligent students to earn credit through local industry internships. Guest speakers from industry are featured on an on-going basis.

Digital Video focuses on developing the concept, design and production skills necessary for creating digital video content in any delivery format. Students will learn scriptwriting, storyboarding, video production with cameras, audio and lighting as well as nonlinear editing using industry-standard tools and techniques.

## AAS – Digital Video

69 credit hours

### FIRST YEAR

#### First Semester

ARTC 1305	Basic Graphic Design
ARTC 1325	Introduction to Computer Graphics
ARTS 2356	Photography I / Darkroom
ARTV 1211	Storyboard
ENGL 1301	Composition / Rhetoric I

#### Second Semester

ARTC 1302	Digital Imaging I
ARTC 1353	Computer Illustration I
ARTV 1303	Basic Animation - Flash
ARTV 1343	Digital Sound
FLMC 1304	Lighting for Film or Video

#### Third Semester

ARTS 1316	Drawing I
MATH 1332	College Mathematics <sup>1</sup>
RTVB 1329	Scriptwriting

## SECOND YEAR

### First Semester

ARTV 1351	Digital Video
DRAM 2366	History of Film Making I
FLMC 1331	Video Graphics and Visual Effects I
MUSC 2351	Audio for Video
PHED/ DANC	Any 1 credit hour activity course (See PHED/DANC Core Options)
ELECTIVE *	

### Second Semester

ARTS 1301	Art Appreciation (See other Humanities/Fine Arts Core Options)
ARTV 2335	Portfolio Development for Animation (Capstone)
ARTV 2341	Advanced Digital Video
PSYC 2301	General Psychology (See other Social / Behavioral Science Core Options)
SPCH 1311	Fundamentals of Speech Communication (See other Speech Core Options)

1. May substitute MATH-1314, MATH-1316, MATH-1324, MATH-1325, MATH-1342, MATH-1350, MATH-1351, MATH-2305, MATH-2312, MATH-2318 or MATH-2320

\* Elective (3 credit hours): ARTV-1345, ARTV-2301, IMED-1316 or MUSC-1331

## Certificate - Digital Video

41 credit hours

### FIRST YEAR

#### First Semester

ARTC 1325	Introduction to Computer Graphics
ARTS 2356	Photography I / Darkroom
ARTV 1211	Storyboard
ARTV 1343	Digital Sound
DRAM 2366	History of Film Making I

#### Second Semester

ARTC 1302	Digital Imaging I
ARTV 1351	Digital Video
FLMC 1304	Lighting for Film or Video
FLMC 1331	Video Graphics and Visual Effects I

## SECOND YEAR

### First Semester

ARTV 1303	Basic Animation - Flash
ARTV 2341	Advanced Digital Video
MUSC 2351	Audio for Video
RTVB 1329	Scriptwriting

### Second Semester

ARTV 2335	Portfolio Development for Animation (Capstone)
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## E-Business Development

### Department Chair:

Susan Mahon PRC - H230C 972.377.1688

### Academic Advisor:

PRC-F134 972.377.1780

### Program Options:

#### AAS - E-Business Development

Media Track

Web Development Track

Android Mobile Development Track

iOS Mobile Development Track

J2ME Mobile Development Track

C# .NET Development Track

Visual Basic .NET Development Track

#### Certificate - E-Business Development

Media Track

E-Commerce Track

Android Mobile Development Track

iOS Mobile Development Track

J2ME Mobile Development Track

C# .NET Development Track

Visual Basic .NET Development Track

#### Certificate - Web Development

#### MSAA - Interactive Web Programming

#### MSAA - Studio

#### MSAA - Web Commerce

With the global impact of web and mobile technologies, interactive web and mobile technology professionals are in demand. The E-Business Development Program prepares students for this role, teaching them to create websites and applications for the distribution of information, web-based tutorials, business presence, and e-commerce.

This degree program offers tracks in e-business media, web development, mobile development and .NET development. Areas of study include web-based multimedia, web authoring, Internet commerce, web-based applications, mobile-based applications and

business .NET applications. The degree can provide a broad business background and professional skills needed to succeed in a career in e-business.

Two certificates are also offered, which can be applied toward the AAS degree. The certificates provide the knowledge to update current job requirements. After successfully completing a certificate, students may continue to work toward an AAS degree in E-Business Development.

In deciding which track to pursue, consider your personal and professional interests. If your interest is in graphics, multimedia, and creating client-side interactive web sites, we recommend the e-business media track. If your interest is in web programming and creating dynamic web sites, the track you should pursue is web development. If your interest is in creating mobile applications, we recommend our new mobile development track. In mobile development we offer you the choice to select Android, J2ME, or iPhone (iOS) development. For those who are interested in developing in a .NET environment, we recommend the .NET track. Our .NET track offers a choice between application development with Visual Basic.NET or C# languages.

Students planning to transfer to another 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 e-business 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.

## AAS – E-Business Development

This degree has seven tracks. Students must select one of the following tracks and complete its technical courses listed below:

### Media Track

60 credit hours

#### FIRST YEAR

##### First Semester

BCIS	1305	Business Computer Applications <sup>1</sup>
ENGL	1301	Composition / Rhetoric I
ITSE	1311	Beginning Web Programming
ITSW	1307	Introduction to Database - Access
MATH	1314	College Mathematics <sup>2</sup>

##### Second Semester

IMED	1301	Introduction to Digital Media
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IMED	1341	Interface Design
IMED	1345	Interactive Digital Media I - Flash
ITSE	2302	Intermediate Web Programming
MEDIA ELECTIVE *		

#### Summer Semester

ECON	1301	Introduction to Economics <sup>3</sup>
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)

#### SECOND YEAR

##### First Semester

GRPH	1359	Vector Graphics for Production
IMED	2309	Internet Commerce
IMED	2345	Interactive Digital Media II – Flash II <sup>4</sup>
ITSE	1301	Web Design Tools - Graphics
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

##### Second Semester

BUSG	2309	Small Business Management/Entrepreneurship <sup>5</sup>
IMED	2311	Portfolio Development <sup>6</sup> (Capstone)
ITSE	2313	Web Authoring - Dreamweaver
PHED / DANC		Any activity course (See PHED / DANC Core Options)

1. May substitute *COSC-1315* or *ITSE-1332*
  2. May substitute *MATH-1316*, *MATH-1324*, *MATH-1325*, *MATH-1332*, *MATH-1342*, *MATH-1350*, *MATH-1351*, *MATH-1414*, *MATH-2305*, *MATH-2312*, *MATH-2318*, *MATH-2320*, *MATH-2413*, *MATH-2414*, *MATH-2415*, *MATH-2417*, or *MATH-2419*
  3. May substitute *ECON-2301*, *ECON-2302*, *PSYC-2301*, or *PSYC-2302*
  4. May substitute *GISC-1311*, *ITSE-1306*, *ITSE-1359* or *ITSE-1374*
  5. May substitute *BMGT-1307* or *BMGT-1341*
  6. May substitute *INEW-2330* or *ITSC-2380*
- \* *Media Elective (2-3 credit hours): ARTV-1211, ARTV-1353, BCIS-2390, ITNW-1358, or ITSC-1305*

### Web Development Track

62 credit hours

#### FIRST YEAR

##### First Semester

COSC	1315	Business Computer Applications <sup>1</sup>
ENGL	1301	Composition / Rhetoric I
ITSE	1311	Beginning Web Programming
ITSW	1307	Introduction to Database - Access
MATH	1314	College Mathematics <sup>2</sup>

##### Second Semester

IMED	1341	Interface Design
ITSE	1356	Extensible Markup Language (XML)

ITSE 2302 Intermediate Web Programming  
GRAPHIC OPTION<sup>3</sup>  
GRAPHIC OPTION<sup>3</sup>

### Summer Semester

ECON 1301 Introduction to Economics<sup>4</sup>  
HUMA 1301 Introduction to the Humanities  
(See other Humanities / Fine Arts  
Core Options)

### SECOND YEAR

#### First Semester

IMED 2309 Internet Commerce  
ITNW 1358 Network +  
SPCH 1311 Fundamentals of Speech  
Communication  
(See other Speech Core Options)

WEB PROGRAMMING OPTION<sup>5</sup>

WEB PROGRAMMING OPTION<sup>5</sup>

#### Second Semester

INEW 2330 Comprehensive Software Project:  
Planning and Design<sup>6</sup> (Capstone)  
ITSY 1400 Fundamentals of Information  
Security (Security +)  
PHED / DANC Any activity course  
(See PHED / DANC Core Options)

WEB PROGRAMMING OPTION<sup>5</sup>

- 
1. May substitute BCIS-1305 or ITSE-1332
  2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419
  3. Graphic Option: GRPH-1359, IMED-1301, IMED-1345, or ITSE-1301
  4. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
  5. Web Programming Option: IMED-2345, INEW-2334, ITSE-1306, ITSE-1359, ITSE-1374, ITSE-1392, ITSE-2309, or ITSE-2313
  6. May substitute IMED-2311 or ITSC-2380

## Android Mobile Development Track

61 credit hours

### FIRST YEAR

#### First Semester

COSC 1315 Fundamentals of Programming<sup>1</sup>  
ENGL 1301 Composition / Rhetoric I  
ITSE 1311 Beginning Web Programming  
ITSW 1307 Introduction to Database - Access  
MATH 1314 College Algebra 2

#### Second Semester

COSC 1337 Programming Fundamentals II - Java  
IMED 1341 Interface Design

ITSE 2302 Intermediate Web Programming  
ITSE 2309 Database Programming – SQL<sup>3</sup>  
TECHNICAL ELECTIVE \*

### Summer Semester

ECON 1301 Introduction to Economics<sup>4</sup>  
HUMA 1301 Introduction to the Humanities  
(See other Humanities / Fine Arts  
Core Options)

### SECOND YEAR

#### First Semester

IMED 2309 Internet Commerce  
ITSE 1373 Android Mobile Programming I  
ITSE 1374 Mobile Web<sup>5</sup>  
SPCH 1311 Fundamentals of Speech  
Communication  
(See other Speech Core Options)

TECHNICAL ELECTIVE \*

#### Second Semester

INEW 2330 Comprehensive Software Project:  
Planning and Design<sup>6</sup> (Capstone)  
ITSE 2373 Android Mobile Programming II  
PHED / DANC Any activity course  
(See PHED / DANC Core Options)

TECHNICAL ELECTIVE \*

- 
1. May substitute COSC-1436
  2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419
  3. May substitute ITSE-1356
  4. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
  5. May substitute ITSE-1359 or ITSE-1392
  6. May substitute ITSC-2380
- \* Technical Elective (3-4 credit hours): Any COSC or ITSE course not listed above, excluding any Cooperative Education or Software Project course

## iOS Mobile Development Track

61 credit hours

### FIRST YEAR

#### First Semester

COSC 1315 Fundamentals of Programming<sup>1</sup>  
ENGL 1301 Composition / Rhetoric I  
ITSE 1311 Beginning Web Programming  
ITSW 1307 Introduction to Database - Access  
MATH 1314 College Algebra<sup>2</sup>

#### Second Semester

IMED 1341 Interface Design  
ITSE 1370 Introduction to iOS Development  
ITSE 2302 Intermediate Web Programming

ITSE 2309 Database Programming – SQL<sup>3</sup>  
TECHNICAL ELECTIVE\*

### Summer Semester

ECON 1301 Introduction to Economics<sup>4</sup>  
HUMA 1301 Introduction to the Humanities  
(See other Humanities / Fine Arts  
Core Options)

### SECOND YEAR

#### First Semester

IMED 2309 Internet Commerce  
ITSE 1371 iOS Programming I  
ITSE 1374 Mobile Web<sup>5</sup>  
SPCH 1311 Fundamentals of Speech  
Communication  
(See other Speech Core Options)

TECHNICAL ELECTIVE \*

#### Second Semester

INEW 2330 Comprehensive Software Project:  
Planning and Design<sup>6</sup> (Capstone)  
ITSE 2371 iOS Programming II  
PHED / DANC Any activity course  
(See PHED / DANC Core Options)

GENERAL ELECTIVE \*\*

1. May substitute COSC-1436
  2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419
  3. May substitute ITSE-1356
  4. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
  5. May substitute ITSE-1359 or ITSE-1392
  6. May substitute ITSC-2380
- \* Technical Elective (3-4 credit hours): Any COSC or ITSE course not listed above, excluding any Cooperative Education or Software Project course
- \*\* General Elective (3-4 credit hours): Any GAME, GISC, GRPH, IMED, ITSC, ITSE or ITSY course not listed above, excluding any Cooperative Education or Software Project course

## J2ME Mobile Development Track

61 credit hours

### FIRST YEAR

#### First Semester

COSC 1315 Fundamentals of Programming<sup>1</sup>  
ENGL 1301 Composition / Rhetoric I  
ITSE 1311 Beginning Web Programming  
ITSW 1307 Introduction to Database - Access  
MATH 1314 College Algebra<sup>2</sup>

#### Second Semester

COSC 1337 Programming Fundamentals II - Java  
IMED 1341 Interface Design  
ITSE 2302 Intermediate Web Programming  
ITSE 2309 Database Programming – SQL  
TECHNICAL ELECTIVE \*

### Summer Semester

ECON 1301 Introduction to Economics<sup>3</sup>  
HUMA 1301 Introduction to the Humanities  
(See other Humanities / Fine Arts  
Core Options)

### SECOND YEAR

#### First Semester

IMED 2309 Internet Commerce  
ITSE 1372 J2ME Mobile Programming I  
ITSE 1374 Mobile Web<sup>4</sup>  
SPCH 1311 Fundamentals of Speech  
Communication  
(See other Speech Core Options)

TECHNICAL ELECTIVE \*

#### Second Semester

INEW 2330 Comprehensive Software Project:  
Planning and Design<sup>5</sup> (Capstone)  
ITSE 2372 J2ME Mobile Programming II  
PHED / DANC Any activity course  
(See PHED / DANC Core Options)

TECHNICAL ELECTIVE \*

1. May substitute COSC-1436
  2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419
  3. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
  4. May substitute ITSE-1359 or ITSE-1392
  5. May substitute ITSC-2380
- \* Technical Elective (3-4 credit hours): Any COSC or ITSE course not listed above, excluding any Cooperative Education or Software Project course

## C# .NET Development Track

61 credit hours

### FIRST YEAR

#### First Semester

ENGL	1301	Composition / Rhetoric I
ITSE	1311	Beginning Web Programming
ITSE	1332	Introduction to Visual Basic .NET Programming <sup>1</sup>
ITSW	1307	Introduction to Database - Access
MATH	1314	College Algebra <sup>2</sup>

#### Second Semester

IMED	1341	Interface Design
ITNW	1358	Network+
ITSE	1330	Introduction to C# Programming
ITSE	2302	Intermediate Web Programming
TECHNICAL ELECTIVE *		

#### Summer Semester

ECON	1301	Introduction to Economics <sup>3</sup>
HUMA	1301	Introduction to the Humanities (See Humanities / Fine Arts Core Options)

### SECOND YEAR

#### First Semester

IMED	2309	Internet Commerce
ITSE	2309	Database Programming - SQL
ITSE	2353	Advanced C# Programming with ASP.NET
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)
TECHNICAL ELECTIVE *		

#### Second Semester

INEW	2330	Comprehensive Software Project: Planning and Design <sup>4</sup> (Capstone)
ITSE	2338	C# Database Development with ADO.NET and LINQ
PHED / DANC		Any activity course (See PHED / DANC Core Options)

#### TECHNICAL ELECTIVE\*

1. May substitute COSC 1315 or COSC 1436
2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419
3. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
4. May substitute ITSC-2380

\* Technical Elective (3-4 credit hours): Any COSC or ITSE course not listed above, excluding any Cooperative Education or Software Project course

## Visual Basic .NET Development Track

61 credit hours

### FIRST YEAR

#### First Semester

ENGL	1301	Composition / Rhetoric I
ITSE	1311	Beginning Web Programming
ITSE	1332	Introduction to Visual Basic .NET Programming
ITSW	1307	Introduction to Database - Access
MATH	1314	College Algebra <sup>1</sup>

#### Second Semester

IMED	1341	Interface Design
ITNW	1358	Network+
ITSE	1347	Programming with Visual Basic .NET
ITSE	2302	Intermediate Web Programming
TECHNICAL ELECTIVE *		

#### Summer Semester

ECON	1301	Introduction to Economics <sup>2</sup>
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)

### SECOND YEAR

#### First Semester

IMED	2309	Internet Commerce
ITSE	2304	Visual Basic .NET Database Development with ADO.NET
ITSE	2309	Database Programming – SQL
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)
TECHNICAL ELECTIVE *		

#### Second Semester

INEW	2330	Comprehensive Software Project: Planning and Design <sup>3</sup> (Capstone)
ITSE	2334	Advanced Visual Basic .NET Programming with ASP.NET
PHED / DANC		Any activity course (See PHED / DANC Core Options)

#### TECHNICAL ELECTIVE \*

1. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419
  2. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302
  3. May substitute ITSC-2380
- \* Technical Elective (3-4 credit hours): Any COSC or ITSE course not listed above, excluding any Cooperative Education or Software Project course

## Certificate – E-Business Development

This certificate has seven tracks. Students must select one of the following tracks and complete its technical courses listed below:

### Media Track

24 credit hours

#### Summer Semester

IMED 1301 Introduction to Digital Media  
ITSE 1311 Beginning Web Programming

#### First Semester

IMED 1341 Interface Design  
IMED 1345 Interactive Digital Media I - Flash  
ITSE 1301 Web Design Tools - Graphics

#### Second Semester

GRPH 1359 Vector Graphics for Production <sup>1</sup>  
ITSE 2313 Web Authoring - Dreamweaver

#### Summer Semester

IMED 2311 Portfolio Development <sup>2</sup> (Capstone)

1. May substitute IMED-2345
2. May substitute INEW-2330 or ITSC-2380

## E-Commerce Track

24 credit hours

#### Summer Semester

IMED 1301 Introduction to Digital Media  
ITSE 1311 Beginning Web Programming

#### First Semester

IMED 1341 Interface Design  
IMED 2309 Internet Commerce  
ITSE 1301 Web Design Tools – Graphics <sup>1</sup>

#### Second Semester

BUSG 2309 Small Business Management/Entrepreneurship  
ITSE 2313 Web Authoring – Dreamweaver <sup>2</sup>

#### Summer Semester

IMED 2311 Portfolio Development <sup>3</sup> (Capstone)

1. May substitute IMED-1345 or GRPH-1359
2. May substitute ITSE-2302
3. May substitute INEW-2330 or ITSC-2380

## Android Mobile Development Track

24 credit hours

#### Summer Semester

COSC 1315 Fundamentals of Programming <sup>1</sup>  
ITSE 1311 Beginning Web Programming

#### First Semester

COSC 1337 Programming Fundamentals II - Java  
ITSE 2309 Database Programming – SQL  
TECHNICAL ELECTIVE \*

#### Second Semester

ITSE 1373 Android Mobile Programming I

#### Summer Semester

INEW 2330 Comprehensive Software Project:  
Planning and Design <sup>2</sup> (Capstone)  
ITSE 2373 Android Mobile Programming II

1. May substitute COSC-1436

2. May substitute ITSC-2380

\* Technical Elective (3-4 credit hours): Any COSC or ITSE course not listed above, excluding any Cooperative Education or Software Project course

## iOS Mobile Development Track

24 credit hours

#### Summer Semester

COSC 1315 Fundamentals of Programming <sup>1</sup>  
ITSE 1311 Beginning Web Programming

#### First Semester

ITSE 1370 Introduction to iOS Programming  
ITSE 1371 iOS Programming I  
ITSE 2309 Database Programming – SQL <sup>2</sup>

#### Second Semester

ITSE 2371 iOS Programming II  
TECHNICAL ELECTIVE \*

#### Summer Semester

INEW 2330 Comprehensive Software Project:  
Planning and Design <sup>3</sup> (Capstone)

1. May substitute COSC-1436

2. May substitute ITSE-1356

3. May substitute ITSC-2380

\* Technical Elective (3-4 credit hours): Any COSC or ITSE course not listed above, excluding any Cooperative Education or Software Project course

## J2ME Mobile Development Track

24 credit hours

### Summer Semester

COSC	1315	Fundamentals of Programming <sup>1</sup>
ITSE	1311	Beginning Web Programming

### First Semester

COSC	1337	Programming Fundamentals II – Java
ITSE	2309	Database Programming – SQL
TECHNICAL ELECTIVE *		

### Second Semester

ITSE	1372	J2ME Mobile Programming I
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### Summer Semester

INEW	2330	Comprehensive Software Project: Planning and Design <sup>2</sup> (Capstone)
ITSE	2372	J2ME Mobile Programming II

1. May substitute COSC-1436

2. May substitute ITSC-2380

\* Technical Elective (3-4 credit hours): Any COSC or ITSE course not listed above, excluding any Cooperative Education or Software Project course

## C# .NET Development Track

24 credit hours

### Summer Semester

ITSE	1311	Beginning Web Programming
ITSE	1332	Introduction to Visual Basic .NET Programming <sup>1</sup>

### First Semester

ITSE	1330	Introduction to C# Programming
ITSE	2309	Database Programming – SQL
TECHNICAL ELECTIVE *		

### Second Semester

ITSE	2338	C# Database Development with ADO.NET and LINQ
ITSE	2353	Advanced C# Programming with ASP.NET

### Summer Semester

INEW	2330	Comprehensive Software Project: Planning and Design <sup>2</sup> (Capstone)
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1. May substitute COSC-1315 or COSC-1436

2. May substitute ITSC-2380

\* Technical Elective (3-4 credit hours): Any COSC or ITSE course not listed above, excluding any Cooperative Education or Software Project course

## Visual Basic .NET Development Track

24 credit hours

### Summer Semester

ITSE	1311	Beginning Web Programming
ITSE	1332	Introduction to Visual Basic .NET Programming

### First Semester

ITSE	1347	Programming with Visual Basic .NET
ITSE	2309	Database Programming - SQL
TECHNICAL ELECTIVE *		

### Second Semester

ITSE	2304	Visual Basic .NET Database Development with ADO.NET
ITSE	2334	Advanced Visual Basic .NET Programming with ASP.NET

### Summer Semester

INEW	2330	Comprehensive Software Project: Planning and Design <sup>1</sup> (Capstone)
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1. May substitute ITSC-2380

\* Technical Elective (3-4 credit hours): Any COSC or ITSE course not listed above, excluding any Cooperative Education or Software Project course

## Certificate – Web Development

30 credit hours

### Summer Semester

COSC	1315	Fundamentals of Programming <sup>1</sup>
ITSE	1311	Beginning Web Programming

### First Semester

IMED	1341	Interface Design
ITSE	2302	Intermediate Web Programming
ITSW	1307	Introduction to Database - Access GRAPHIC OPTION <sup>2</sup>

### Second Semester

INEW	2330	Comprehensive Software Project: Planning and Design <sup>3</sup> (Capstone)
WEB PROGRAMMING OPTION <sup>4</sup>		
WEB PROGRAMMING OPTION <sup>4</sup>		
TECHNICAL ELECTIVE *		

1. May substitute ITSE-1332

2. Graphic Option: IMED-1301, IMED-1345, or ITSE-1301

3. May substitute IMED-2311 or ITSC-2380

4. Web Programming Option: IMED-2345, ITSE-1306, ITSE-1356, ITSE-1359, ITSE-1374, ITSE-2309, ITSE-2313

\* Technical Elective: IMED-2309, ITNW-1358, ITSE-1392, ITSY-1400



## MSAA – Interactive Web Programming

9 credit hours

IMED	1301	Introduction to Digital Media
ITSE	1311	Beginning Web Programming
ITSE	2302	Intermediate Web Programming

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*Note: Some of the courses in these award programs may require prerequisites. Please check the course descriptions.*

## MSAA – Studio

9 credit hours

IMED	1345	Interactive Digital Media I - Flash
ITSE	1301	Web Design Tools - Graphics
ITSE	2313	Web Authoring - Dreamweaver

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*Note: Some of the courses in these award programs may require prerequisites. Please check the course descriptions.*

## MSAA – Web Commerce

9 credit hours

IMED	2309	Internet Commerce
ITSE	1301	Web Design Tools - Graphics <sup>1</sup>
ITSE	1311	Beginning Web Programming

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*1. May substitute IMED-1301 or IMED-1345*

*Note: Some of the courses in these award programs may require prerequisites. Please check the course descriptions.*

## Electronic Engineering Technology

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### Program Director:

Dave Galley                      PRC-H213      972.377.1676

### Academic Advisor:

PRC-F134      972.377.17801

### Program Options:

AAS - Electronic Engineering Technology

AAS - Biomedical Instrumentation Electronic  
Specialization

Certificate - Electronic Engineering Technology

## Certificate - Biomedical Instrumentation Electronic Specialization

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.

## AAS – Electronic Engineering Technology

67 credit hours

### FIRST YEAR

#### First Semester

CETT	1425	Digital Fundamentals <sup>1</sup>
ENGL	1301	Composition/Rhetoric I
ENGR	1201	Introduction to Engineering
MATH	1314	College Algebra <sup>2</sup>
RBTC	1305	Robotic Fundamentals

#### Second Semester

CETT	1403	DC Circuits <sup>1</sup>
CPMT	2302	Digital Home Technology Integration
DFTG	1309	Basic Computer-Aided Drafting <sup>1</sup>
MATH	1316	Trigonometry

SMFT 1471 Fundamentals of Solar Cell Engineering

**Summer**

ECON 1301 Introduction to Economics  
(See other Social / Behavioral Science Core Options)

SPCH 1311 Fundamentals of Speech Communication  
(See other Speech Core Options)

**SECOND YEAR**

**First Semester**

CETT 1405 AC Circuits<sup>1</sup>  
CETT 1445 Microprocessor  
HUMA 1301 Introduction to the Humanities  
(See other Humanities / Fine Arts Core Options)  
PHYS 1401 General Physics I

**Second Semester**

CETT 1457 Linear Integrated Circuits  
EECT 1448 Digital Signal Processing (DSP)  
HART 2472 Alternative Energy Perspectives, Energy Sources, Energy Storage, and Energy Distribution (Capstone)  
PHED / DANC Any activity course  
(See PHED / DANC Core Options)  
PHYS 1402 General Physics II<sup>3</sup> –OR–  
Electronic Course\*

- 
1. Tech Prep course which may have been completed in high school
  2. May substitute MATH 1316, MATH 1324, MATH 1325, MATH 1332, MATH 1342, MATH 1350, MATH 1351, MATH 1414, MATH 2305, MATH 2312, MATH 2318, MATH 2320, MATH 2413, MATH 2414, MATH 2415, MATH 2417, or MATH 2419
  3. For students planning to transfer to a four-year college or university. Workforce students will substitute an electronic course\*
- \* Electronic Course: CETT 1429, INTC 1307, or SMFT 1475 will satisfy this requirement. Courses not listed above may be substituted with approval of Program Director.

**AAS – Biomedical Instrumentation Electronic**

66 credit hours

**FIRST YEAR**

**First Semester**

CETT 1425 Digital Fundamentals<sup>1</sup>  
ENGL 1301 Composition/Rhetoric I  
ENGR 1201 Introduction to Engineering  
MATH 1314 College Algebra<sup>2</sup>  
RBTC 1305 Robotic Fundamentals

**Second Semester**

CETT 1403 DC Circuits<sup>1</sup>  
DFTG 1309 Basic Computer-Aided Drafting<sup>1</sup>  
ECON 1301 Introduction to Economics  
(See other Social / Behavioral Science Core Options)  
MATH 1316 Trigonometry

**Summer**

PHYS 1401 General Physics I  
SPCH 1311 Fundamentals of Speech Communication  
(See other Speech Core Options)

**SECOND YEAR**

**First Semester**

BIOM 1355 Medical Electronic Applications  
CETT 1405 AC Circuits<sup>1</sup>  
CETT 1429 Solid State Devices<sup>1</sup>  
HUMA 1301 Introduction to the Humanities  
(See other Humanities / Fine Arts Core Options)  
PHED / DANC Any activity course  
(See PHED / DANC Core Options)

**Second Semester**

BIOM 1280 Cooperative Education - Biomedical Technology/Technician (Capstone)  
CETT 1457 Linear Integrated Circuits  
EECT 1448 Digital Signal Processing (DSP)  
INTC 1307 Instrumentation Test Equipment  
ELECTIVE \*

- 
1. Tech Prep course which may have been completed in high school
  2. May substitute MATH 1316, MATH 1324, MATH 1325, MATH 1332, MATH 1342, MATH 1350, MATH 1351,

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

\* Elective (3 credit hours): Any CETT, CPMT, EECT,  
ELMT, ENGR, ENTC, INMT, INTC, or SMFT course not  
listed above with approval of Program Director.

## Certificate - Electronic Engineering Technology

32 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)  
(Capstone)  
SMFT 1471 Fundamentals of Solar Cell  
Engineering

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 14051.

\*\* Option 2:

- Students pursuing the Electronic Engineering track  
should complete CETT 1457.
- Students pursuing the Computer Maintenance track  
should complete CPMT 2302.

## Certificate - Biomedical Instrumentation Electronic Specialization

30 credit hours

### First Semester

CETT 1403 DC Circuits<sup>1</sup>  
CETT 1425 Digital Fundamentals<sup>1</sup>  
ENGR 1201 Introduction to Engineering  
INTC 1307 Instrumentation Test Equipment

RBTC 1305 Robotic Fundamentals

### Second Semester

BIOM 1280 Cooperative Education - Biomedical  
Technology/Technician (Capstone)  
BIOM 1355 Medical Electronic Applications  
CETT 1405 AC Circuits<sup>1</sup>  
EECT 1448 Digital Signal Processing (DSP)

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

## Emergency Medical Services Professions

### Program Director:

Pat McAuliff CPC-A206 972.548.6836

### Academic Advisor:

Tori Hoffman CPC-D117E 972.548.6779

### Program Options:

**AAS - Emergency Medical Services Professions**

**Certificate - EMS Paramedic**

**MCAA - Emergency Medical Services Professions**

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

AAS - Emergency Medical Services Professions 69 -  
72 credit hours

EMS Paramedic Certificate 42 credit hours

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.

### 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.

- \* Provide proof of high school graduation or GED
- \* 18 years of age
- \* Completion of program application
- \* Complete Compass Reading Diagnostic (Minimum score 75); Compass Pre-Algebra Test (Minimum score 72)
- \* Certified as American Heart Association CPR for Health Care Provider or Red Cross CPR for the Professional Rescuer
- \* Personal interview
- \* Drug test
- \* Criminal history check
- \* Completion of immunizations required by the Texas Department of State Health Services (TDSHS) . \*\*
- \* 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 Sciences and Emergency Services Office at 972.548.6678.

### AAS – Emergency Medical Services Professions or EMS Paramedic Certificate (Paramedic Students)

#### Additional Admission Requirements

- \* Texas Department of State Health Services 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)

### AAS – Emergency Medical Services Professions

69 - 72 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	1301	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 (See other Humanities / Fine Arts Core Options)
PSYC	2301	General Psychology (See other Social / Behavioral Science Core Options)

### 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
2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417 or MATH-2419
3. May substitute PHED-1102, PHED-1104, PHED-1106, PHED-1111, PHED-1112, PHED-1113, PHED-1114, PHED-1116, PHED-1117, PHED-1118, PHED-1120, PHED-1121, PHED-1126, PHED-1127, PHED-1131, PHED-1133, PHED-1136, PHED-1137, PHED-1140, PHED-1147, PHED-1148, PHED-1253 or PHED-1338
4. May substitute SPCH-1321

## Certificate - EMS Paramedic

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

## Emergency Medical Technician – Basic

6 credit hours

EMSP	1160	Clinical - Emergency Medical Technician - Basic <sup>1</sup>
EMSP	1501	Emergency Medical Technician - Basic <sup>1</sup>

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<sup>1</sup> Included in the prerequisites for degree and certificate

## **MCAA – 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

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*Note: Some of the courses in this award program may require prerequisites. Please check the course descriptions.*

## **Fire Academy**

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*Also see, Fire Science*

### **Program Director:**

Pat McAuliff                      CPC - A206      972.548.6837

### **Academic Advisor:**

Tori Hoffman                      CPC - D117E      972.548.6779

### **Program Options:**

**AAS - Basic Firefighter Certification  
Certificate - Basic Firefighter**

Collin College's Fire Academy is one of the most highly regarded programs in the state. Fire Academy graduates from Collin College can be found throughout Texas - all of them making a difference in their communities.

This certification program was developed to prepare students for a career as a professional firefighter. The Collin College Fire Academy meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for certification as a basic firefighter.

Many fire departments require applicants to complete basic firefighter training before they take a fire department entrance exam. Students accepted into the Fire Academy will also complete Emergency Medical Technician (EMT) training for state certification. This program awards 29 credits.

Students are accepted into the Fire Academy on a competitive basis. Students interested in enrolling in the Fire Academy should contact the Fire Science Office at 972.548.6836. Fire Academy application packets may be printed from the Fire Science website: <http://www.collin.edu/firescience> , or students may pick-up an application at either the Fire Science or Advising Office. Students may request to receive an application by mail.

### **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:**

- \* 18 years of age
- \* Provide proof of high school graduation or GED
- \* Complete Collin College application
- \* Complete program application
- \* Complete Compass Reading Diagnostic Test (Minimum score 75);
- \* Compass Pre-Algebra Test (Minimum score 72)
- \* Complete the physical ability exam and personal interview scheduled through the Program Director
- \* 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 Fire Science/EMS Office, the Health Sciences and Emergency Services Division (HSES) Office or at the Fire Science website: <http://www.collin.edu/firescience>.

## AAS – Basic Firefighter Certification

67 - 70 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 -OR- BIOL-1408 Introduction to Biology I
FIRT	1315	Hazardous Materials I
GOVT	2301	American Government I
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

### 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>3</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)

1. May substitute MATH-1314, MATH-1316, MATH-1324, MATH-1325, MATH-1342, MATH-1350, MATH-1351,

MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417 or MATH-2419

2. May substitute PHED-1102, PHED-1104, PHED-1106, PHED-1111, PHED-1112, PHED-1113, PHED-1114, PHED-1116, PHED-1117, PHED-1118, PHED-1120, PHED-1121, PHED-1126, PHED-1127, PHED-1131, PHED-1133, PHED-1136, PHED-1137, PHED-1140, PHED-1147, PHED-1148, PHED-1253 or PHED-1338
3. May substitute ANTH-2346, ANTH-2351, ECON-1301, ECON-2301, ECON-2302, GOVT-2302, HIST-1301, HIST-1302, HIST-2301, PSYC-2302 or SOCI-1301

## Certificate - Basic Firefighter

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 Science

Also see Fire Academy

### Program Director:

Pat McAuliff CPC-A206 972.548.6836

### Academic Advisor:

Tori Hoffman CPC-D117E 972.548.6779

### Program Options:

#### AAS - Fire Officer Certification

#### Certificate - Fire Officer

#### MSAA - Fire Officer Candidate

The firefighter with a well-balanced educational background will be better prepared to serve and protect

the community. Collin's Fire Science program is designed to give current and future Fire Officers the certifications and experience necessary for effective decision-making and leadership skills in the fire department. Students acquire the technical knowledge needed to combat the fire problems created by modern living and develop leadership skills required of the Fire Officer. The program meets the requirements of the Texas Commission on Fire Protection (TCFP). Students certified in Texas as a Basic Firefighter are eligible to take the State Certification Exams for Fire Instructor I, II; and Fire Officer I, II after successfully completing selected courses in the Fire Officer Certificate program. Fire Fighters interested in enrolling in the Fire Officer Certification program should contact the Fire Science Office at 972.548.6836.

Full-time, full-paid firefighters employed by any political subdivision or active volunteer firefighters meeting the firefighter exemption criteria enrolled in the Fire Science courses within Collin's Fire Science program may be exempt from paying tuition and laboratory fees for select credit courses.

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

### **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.

Registration is by permission only. Additional information may be obtained from the Fire Science/EMS Office, the Health Sciences and Emergency Services Division (HSES) Office or at the Fire Science website:

<http://www.collin.edu/firescience>.

## **AAS – Fire Officer Certification**

62 - 65 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 - <b>OR-</b> BIOL-1408 Introduction to Biology I
FIRT	1315	Hazardous Materials I
GOVT	2301	American Government I
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

### **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)

1. May substitute ECON-2301 or ECON-2302

2. May substitute MATH-1314, MATH-1316, MATH-1324, MATH-1325, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417 or MATH-2419



3. May substitute PHED-1102, PHED-1104, PHED-1106, PHED-1111, PHED-1112, PHED-1113, PHED-1114, PHED-1116, PHED-1117, PHED-1118, PHED-1120, PHED-1121, PHED-1126, PHED-1127, PHED-1131, PHED-1133, PHED-1136, PHED-1137, PHED-1140, PHED-1147, PHED-1148, PHED-1253 or PHED-1338
4. May substitute ANTH-2346, ANTH-2351, GOVT-2302, HIST-1301, HIST-1302, HIST-2301, PSYC-2302, or SOCI-1301

## Certificate - Fire Officer

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)

## MSAA – Fire Officer Candidate

9 credit hours

FIRT	1342	Fire Officer I
FIRT	2305	Fire Instructor I
FIRT	2309	Firefighting Strategies and Tactics I

*Note: Some of the courses in this award program may require prerequisites. Please check the course descriptions.*

## Graphic Design and Web

*Also see, Photography, Commercial*

### Department Chair:

Laura Flores                      SCC - K241    972.578.5527

### Academic Advisors:

John Ciccia                        SCC - G148    972.578.5563

Torrey West                        PRC - F132    972.377.1513

### Program Options:

#### AAS - Graphic Design

*Print Track*

*Web Track*

#### Certificate - Graphic Design

*Print Track*

*Web Track*

#### MSAA - Graphic Design

#### MSAA - Web-Interactive Media

For over twenty years, the Communication Design department (formerly Applied Graphic Design Technology) at Collin has offered industry-standard education in the creative service fields of animation, digital video, graphic design, web and interactive design. All full-time faculty have industry experience and all associate faculty are practicing professionals. Current industry practices and standards are a central component of classroom instruction. There is an elective option for the most diligent students to earn credit through local industry internships. Guest speakers from industry are featured on an on-going basis.

This program's overall emphasis is on traditional graphic design and art direction concepts applied to technical skills for print and web media. The Print Track focuses on strong concept development skills and production techniques in print and other media. The Web Track focuses on website development, web animation and interactive media. Both tracks prepare students for careers in advertising, commercial art and visual communication.

## AAS – Graphic Design

72 credit hours

### FIRST YEAR

#### First Semester

ARTC	1325	Introduction to Computer Graphics <sup>1</sup>
ARTC	2311	History of Communication Graphics <sup>1</sup>
ARTS	1301	Art Appreciation (See other Humanities / Fine Arts Core Options)
ARTS	1316	Drawing I
ARTV	1211	Storyboard
ENGL	1301	Composition / Rhetoric I

#### Second Semester

ARTC	1302	Digital Imaging I
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ARTC 1305 Basic Graphic Design  
 ARTC 1353 Computer Illustration I  
 ARTV 1303 Basic Animation - Flash  
 IMED 1316 Web Design I

**Third Semester**

ARTC 1313 Digital Publishing I - InDesign  
 ARTC 1327 Typography  
 TECHNICAL COURSE 1

**SECOND YEAR**

**First Semester**

ARTC 1349 Art Direction I  
 ARTS 2356 Photography I / Darkroom  
 PHED / DANC Any 1 credit hour activity course  
 (See PHED/DANC Core Options)  
 SPCH 1311 Fundamentals of Speech  
 Communication  
 (See other Speech Core Options)

TECHNICAL COURSE 2

TECHNICAL COURSE 3

**Second Semester**

ARTC 2335 Portfolio Development for Graphic  
 Design (Capstone)  
 ARTC 2349 Art Direction II  
 MATH 1332 College Mathematics <sup>2</sup>  
 PSYC 2301 General Psychology  
 (See other Social / Behavioral  
 Science Core Options)

**ELECTIVE \***

1. Tech Prep course which may have been completed in high school
  2. May substitute MATH-1314, MATH-1316, MATH-1324, MATH-1325, MATH-1342, MATH-1350, MATH-1351, MATH-2305, MATH-2312, MATH-2318 or MATH-2320
- \* Elective (3 credit hours) If not used in degree requirements: ARTC-2301, ARTC-2305, ARTC-2340, ARTC-2347, ARTS-1317, ARTV-1345, FLMC-1331, GRPH-1380, IMED-2315 or IMED-2349

**Technical Courses for AAS – Graphic Design Tracks**

This degree has two tracks. Students must select one of the following tracks and complete its technical courses listed below:

**AAS - Graphic Design - Print Track:**

Technical Course 1: ARTC-2305 Digital Imaging II  
 – Photoshop **-OR-** ARTC-2340  
 Computer Illustration II  
 Technical Course 2: ARTC-1321 Illustration  
 Techniques I  
 Technical Course 3: ARTC-2347 Design  
 Communication II

**AAS - Graphic Design - Web Track:**

Technical Course 1: ARTV-2301 2-D Animation I -  
 Flash  
 Technical Course 2: ARTV-1343 Digital Sound  
 Technical Course 3: ARTV-2330 2-D Animation II  
 – Flash **-OR-** IMED-2315 Web Design II

**Certificate – Graphic Design**

41 credit hours

**FIRST YEAR**

**First Semester**

ARTC 1305 Basic Graphic Design  
 ARTC 1325 Introduction to Computer Graphics  
 ARTC 2311 History of Communication Graphics  
 ARTS 1316 Drawing I  
 ARTV 1211 Storyboard

**Second Semester**

ARTC 1302 Digital Imaging I  
 ARTC 1353 Computer Illustration I  
 ARTV 1303 Basic Animation - Flash  
 IMED 1316 Web Design I

**SECOND YEAR**

**First Semester**

ARTC 1327 Typography  
 ARTC 1349 Art Direction I  
 TECHNICAL COURSE 1

**Second Semester**

ARTC 2335 Portfolio Development for Graphic  
 Design (Capstone)  
 TECHNICAL COURSE 2

## Technical Courses for Certificate – Graphic Design Tracks

This certificate has two tracks. Students must select one of the following tracks and complete its technical courses listed below:

### Certificate - Graphic Design - Print Track:

Technical Course 1: ARTC-1313 Digital Publishing I - InDesign

Technical Course 2: ARTC-2349 Art Direction II

### Certificate - Graphic Design - Web Track:

Technical Course 1: ARTV-2301 2-D Animation I - Flash

Technical Course 2 ARTV-2330 2-D Animation II – Flash **-OR-** IMED-2315 Web Design II

## MCAA – Graphic Design

12 credit hours

ARTC 1302 Digital Imaging I

ARTC 1313 Digital Publishing I - InDesign

ARTC 1353 Computer Illustration I

ELECTIVE \*

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\* Elective (3 credit hours): ARTC-2305, ARTC-2340 or ARTC-2347

Note: Some of the course in this award program may require prerequisites. Please check the course descriptions.

## MCAA – Web-Interactive Media

14 credit hours

ARTC 1302 Digital Imaging I

ARTV 1211 Storyboard

IMED 1316 Web Design I

ELECTIVE \*

ELECTIVE \*

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\* Electives (6 credit hours): ARTC-1353, ARTV-1303, ARTV-2301 or IMED-2315

Note: Some of the course in this award program may require prerequisites. Please check the course descriptions.

## Health Information Technology

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Also see Health Information Technology / Medical Coding and Billing

### Program Director:

Michelle Millen, BS, RHIT

CPC - E307 972.548.6676

### Academic Advisor:

Tori Hoffman

CPC-D117E 972.548.6779

### Program Option:

#### AAS - Health Information Technology

The Associate of Applied Science (AAS) in Health Information Technology (HIT) at Collin College is an 18 month program (two academic years) that will prepare the student for workforce, as a health information professional. The curriculum is based on the American Health Information Management Association's (AHIMA) competencies for the Certified Coding Associate (CCA) and the Registered Health Information Technician (RHIT). This curriculum is approved by the Texas Higher Education Coordinating Board and accredited by the Commission on Accreditation for Health Informatics and Information Management (CAHIIM) Education.

Upon the successful completion of the program, the graduate can make application to AHIMA to take the credentialing examination. After passing the certification examination, the graduate can use the designation RHIT behind the professional signature. Students must meet eligibility requirements for certification.

### ACCREDITATION

The AAS in HIT is accredited through the CAHIIM.

They may be contacted at:

233 N. Michigan Ave., 21st floor

Chicago, IL 60601-5800

312.233.1100

[www.cahiim.org](http://www.cahiim.org)

### 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 Health Information Technology website [www.collin.edu/healthinfotech](http://www.collin.edu/healthinfotech). 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.

### ADMISSION REQUIREMENTS

- \* Completion of the five pre-entrance courses with a grade of "C" or above and a cumulative prerequisite course GPA of 2.5. These courses include: BIOL-2404, HPRS-1271, HPRS-2300, HPRS-2301 and SRGT-1301.
- \* Drug screen
- \* Criminal history check
- \* Completion of immunizations required by the Texas Department of State Health Services (TDSHS) \*\*
- \* Personal interview

*\*\* 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 completed before the first clinical visit.*

**Health Insurance** - All HIT students are required to show proof of health insurance prior to starting clinical rotations each semester.

Once the student is admitted to this program, they must earn a grade of "C" or better in all major course work to continue.

The clinical courses require students to be placed at a clinical site. Clinical I (HITT-1160), students will be spending a total of 16 hours at various healthcare facilities. Clinical II (HITT-2361), students will be spending 80 hours in a healthcare facility. These hours are typically Monday through Friday during normal business hours and arrangements should be made by students to be available for their scheduled clinical visits. For more information contact the Health

Information Technology Department.

Students interested in the program should see an academic advisor. Once admitted, the Program Director will construct an academic degree plan. Consult the college website for more specific information as well as the HIT website at: [www.collin.edu/healthinfotech](http://www.collin.edu/healthinfotech)

## AAS – Health Information Technology

69 credit hours

### FIRST YEAR

#### Prerequisites

BIOL	2404	Human Anatomy and Physiology Basic <sup>2</sup>
HPRS	1271	Introduction to the Healthcare System <sup>1</sup>
HPRS	2300	Pharmacology for Health Professions
HPRS	2301	Pathophysiology
SRGT	1301	Medical Terminology I <sup>1</sup>

#### First Semester

ENGL	1301	Composition / Rhetoric I
HITT	1301	Health Data Content and Structure
HITT	1311	Computers in Health Care
MDCA	1343	Medical Insurance / Billing
PHED / DANC		Any one credit hour activity course (See PHED / DANC Core Options)

#### Second Semester

HITT	1160	Clinical I - Health Information / Medical Record Technology
HITT	1255	Health Care Statistics
HITT	1345	Health Care Delivery Systems
POFM	1300	Medical Coding Basics
SPCH	1321	Business and Professional Speaking (See other Speech Core Options)

### SECOND YEAR

#### First Semester

BMGT	1307	Team Building <sup>3</sup>
HITT	1342	Ambulatory Coding
HITT	2339	Health Information Organization and Supervision
HITT	2346	Advanced Medical Coding

HPRS 2321 Medical Law and Ethics for Health Professionals

### Second Semester

HITT 2249 RHIT Competency Review  
HITT 2343 Quality Assessment and Performance Improvement  
HITT 2361 Clinical II - Health Information / Medical Records Technology<sup>4</sup>  
PHIL 2303 Introduction to Logic<sup>5</sup>  
PSYC 2301 General Psychology<sup>6</sup>

1. *Tech Prep course which may have been completed in high school*
2. *No course substitutions*
3. *May substitute BMGT-1305, BMGT-1327, BMGT-1341 or BMGT-1344*
4. *HITT 2361 is the Capstone course.*
5. *May substitute ARTS-1301, ARTS-1303, ARTS-1304, ARTS-1313, DANC-2303, DRAM-1310, DRAM-2361, DRAM-2362, ENGL-2322, ENGL-2323, ENGL-2327, ENGL-2328, ENGL-2332, ENGL-2333, ENGL-2342, ENGL-2343, ENGL-2351, FREN-2303, FREN-2304, HIST-2311, HIST-2312, HIST-2321, HIST-2322, HUMA-1301, HUMA-1305, HUMA-1311, HUMA-2319, HUMA-2323, MUSI-1306, MUSI-1307, PHIL-1301, PHIL-2306, PHIL-2307, SPAN-2321 or SPAN-2322*
6. *May substitute PSYC-2302*

## Health Information Technology / Medical Coding and Billing

*Also see Health Information Technology*

### Program Director:

Michelle Millen, BS, RHIT  
CPC - E307 972.548.6676

### Academic Advisor:

Tori Hoffman CPC-D117E 972.548.6779

### Program Options:

#### Certificate - Medical Coding and Billing

The Medical Coding and Billing Certificate is a 38 credit hour on-line program that will prepare the student for workforce as a medical coder/biller. The curriculum is based on the American Health Information Management Association's (AHIMA) competencies

### ACCREDITATION

The coding credential is awarded and maintained by the American Health Information Association (AHIMA). They may be contacted at:

233 N. Michigan Ave., 21<sup>st</sup> floor  
Chicago, IL 60601-5800  
312.233.1100  
<http://www.ahima.org>

### 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 Health Information Technology website [www.collin.edu/healthinfotech](http://www.collin.edu/healthinfotech). 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.

Students interested in this certificate must first complete all prerequisite classes in order to progress to the other classes. Students must earn a "C" or better in all classes in order to continue in the certificate program.

Upon the successful completion of the program, the graduate will be eligible to take a coding certification exam. After passing the certification examination, the graduate can use their coding designation behind the professional signature. Students must meet eligibility requirements for certification.

For more information, consult the HIT website at: <http://www.collin.edu/healthinfotech>.

## Certificate - Medical Coding and Billing

38 credit hours

### PREREQUISITES

BIOL	2404	Human Anatomy and Physiology Basic
HPRS	2300	Pharmacology for Health Professions
HPRS	2301	Pathophysiology
SRGT	1301	Medical Terminology I

### FIRST YEAR

#### First Semester

HITT	1301	Health Data Content and Structure
HITT	1311	Computers in Health Care
POFM	1300	Medical Coding Basics

#### Second Semester

HITT	1342	Ambulatory Coding
HPRS	2321	Medical Law and Ethics for Health Professionals
MDCA	1343	Medical Insurance / Billing

#### Third Semester

HITT	1266	Practicum - Health Information / Medical Records Technology (Capstone)
HITT	2245	Coding Certification Exam Review
HITT	2346	Advanced Medical Coding

## Hospitality and Food Service Management

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### Department Chair:

Karen Musa                      PRC-L229            972.377.1672

### Academic Advisors:

Tom Bailey                      PRC-F131            972.377.1771  
Debra Lamb                      SCC-G141            972.881.5165

### Department Website:

<http://www.collin.edu/hospitality>

### Program Options:

**AAS - Hotel/Restaurant Management**

**Certificate - Hotel/Restaurant Management**

**Certificate - Catering Management**

**Certificate - Dietary Manager**

## Certificate - Hotel Management

## Certificate - Meetings and Event Management

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.

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, Information, and Engineering Technologies Office.

## **AAS – Hotel / Restaurant Management**

64 credit hours

### **FIRST YEAR**

#### **First Semester**

CHEF 1305	Sanitation and Safety <sup>1, 2, 3</sup>
ENGL 1301	Composition/Rhetoric I
HAMG 1321	Introduction to Hospitality Industry <sup>1</sup>
HAMG 1340	Hospitality Legal Issues
HAMG 2307	Hospitality Marketing and Sales

#### **Second Semester**

HAMG 1313	Front Office Procedures
HAMG 1324	Hospitality Human Resources Management
HAMG 2337	Hospitality Facilities Management
HUMA 1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
RSTO 1325	Purchasing for Hospitality Operations

#### **Summer**

ECON 1301	Introduction to Economics (See other Social / Behavioral Science Core Options)
HAMG 1319	Computers in Hospitality
MATH 1332	College Mathematics <sup>4</sup>

### **SECOND YEAR**

#### **First Semester**

HAMG 2301	Principles of Food and Beverage Operations
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HAMG 2305	Hospitality Management and Leadership
SPCH 1321	Business and Professional Speaking (See other Speech Core Options)
TRVM 2301	Introduction to Convention/Meeting Management

#### **Second Semester**

HAMG 2332	Hospitality Financial Management
HAMG 2380	Cooperative Education - Hospitality Administration/Management, General (Capstone)
PHED / DANC	Any activity course (See PHED / DANC Core Options)
RSTO 2307	Catering
ELECTIVE *	

- 
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): Any CHEF, HAMG, IFWA, RSTO, or TRVM course not listed above

## **Certificate - Hotel / Restaurant Management**

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 (Capstone)
HAMG 2337	Hospitality Facilities Management
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): BUSG 2309 or any CHEF, HAMG, or TRVM course

## Certificate - Catering Management

24 credit hours

### First Semester

BUSG 2309	Small Business Management / Entrepreneurship
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 2307	Catering (Capstone)
ELECTIVE *	

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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 CHEF, HAMG, or TRVM course

## Certificate - Dietary Manager

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)

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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

## Certificate - Hotel Management

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 2305	Hospitality Management and Leadership (Capstone)
HAMG 2337	Hospitality Facilities Management

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

## Certificate - Meetings and Event Management

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 2333	Applied Convention/Meetings Management (Capstone)
TRVM 2355	Exposition and Trade Show Operations

### ELECTIVE \*

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

\* Elective (3 credit hours): BUSG-2309 or any CHEF, HAMG, or TRVM course



## Information Systems Cybersecurity

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### Program Director:

Dave Galley            PRC-H213      972.377.1676

### Academic Advisor:

PRC-F134      972.377.1780

### Program Options:

#### AAS - Information Systems Cybersecurity

#### Certificate - Information Systems Cybersecurity

#### Certificate - CISSP Information Systems

#### Cybersecurity Professional

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 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.

## AAS – Information Systems Cybersecurity

71 credit hours

### FIRST YEAR

#### First Semester

CPMT 1405    IT Essentials I: PC Hardware and Software <sup>1</sup>

ENGL 1301    Composition/Rhetoric I

ITMT 1300    Implementing and Supporting Microsoft Windows XP Professional

ITMT 1440    Managing and Maintaining a Microsoft Windows Server 2003 Environment

ITNW 1358    Network +

### Second Semester

ECON 2301    Principles of Macroeconomics (See other Social / Behavioral Science Core Options)

ITCC 1301    CCNA 1 Cisco Exploration 1 - Network Fundamentals <sup>1</sup>

ITMT 1450    Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services

ITSC 1316    Linux Installation and Configuration

PHED / DANC    Any activity course (See PHED / DANC Core Options)

ELECTIVE \*

### Summer

ITCC 1304    CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts <sup>1</sup>

MATH 1314    College Algebra <sup>2</sup>

## SECOND YEAR

### First Semester

ITCC 2308    CCNA 3 Cisco Exploration 3 - LAN Switching and Wireless <sup>1</sup>

ITCC 2310    CCNA 4 Cisco Exploration 4 - Accessing the WAN <sup>1</sup>

ITSY 2300    Operating System Security

ITSY 2301    Firewalls and Network Security

SPCH 1311    Fundamentals of Speech Communication (See other Speech Core Options)

### Second Semester

HUMA 1301    Introduction to the Humanities (See other Humanities / Fine Arts Core Options)

ITSY 2341    Security Management Practices

ITSY 2342    Incident Response and Handling

ITSY 2343    Computer System Forensics

ITSY 2371    e-Commerce and Biometric Authentication (Capstone)

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*Note 1: All ITCC, ITMC, ITMT, ITNW and ITSY courses are offered in eight-week express sessions.*

1. *Tech Prep course which may have been completed in high school*
  2. *May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH 1350, MATH-1351, MATH-1414, MATH-2305, MATH 2312, MATH-2318, MATH-2320, MATH-2413, MATH 2414, MATH-2415, MATH-2417, or MATH-2419*
- \* *Elective (4-5 credit hours): ITMT-2440, ITSY-1400, or ITSY-2572*

## Certificate - Information Systems Cybersecurity

39 credit hours

### First Semester

ITCC	1301	CCNA 1 Cisco Exploration 1 - Network Fundamentals <sup>1</sup>
ITCC	1304	CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts <sup>1</sup>
ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
ITNW	1358	Network +

### Second Semester

ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services
ITSY	2300	Operating System Security
ITSY	2301	Firewalls and Network Security
ITSY	2342	Incident Response and Handling
ELECTIVE	*	

### Summer

ITSY	2341	Security Management Practices
ITSY	2343	Computer System Forensics
ITSY	2371	e-Commerce and Biometric Authentication (Capstone)

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

\* *Elective (4-5 credit hours): ITMT-2440, ITSY-1400, or ITSY-2572*

*Note: All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions.*

## Certificate - CISSP Information Systems Cybersecurity Professional

15 credit hours

### First Semester

ITNW 1358 Network +

### Second Semester

ITSY	1400	Fundamentals of Information Security
ITSY	2341	Security Management Practices
ITSY	2572	Certified Information Systems Security Professional (CISSP) Common Body of Knowledge Domain Instruction (Capstone)

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*Note: All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight-week express sessions.*

## Interior and Architectural Design

### Program Director:

Dave Galley PRC - H213 972.377.1676

### Interior and Architectural Design Faculty Contact:

Ali Kholdi PRC - H217 972.377.1716

### Academic Advisor:

PRC - F134 972.377.1780

### Department Website:

<http://www.collin.edu/iad>

### Program Options:

**AAS - Interior and Architectural Design**

**AAS - Green Interior and Architectural Design**

**Specialization**

**Certificate - Interior and Architectural Design**

**Certificate - Level II - Green Interior and Architectural Design**

**Certificate - Level I - Green Interior and Architectural Design**

**MCAA - Interior and Architectural Design**

**MCAA - Green Interior and Architectural Design**

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. The Green Interior and Architectural Design program provides courses that are helpful to students who seek to enhance their knowledge of Green Design, as well as expanding their marketability.

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.

## AAS – Interior and Architectural Design

72 credit hours

### FIRST YEAR

#### First Semester

DFTG	1309	Basic Computer-Aided Drafting <sup>1</sup>
ECON	1301	Introduction to Economics (See other Social / Behavioral Science Core Options)
INDS	1301	Basic Elements of Design
INDS	1341	Color Theory and Application

SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)
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#### Second Semester

DFTG	2319	Intermediate Computer-Aided Drafting <sup>1</sup>
INDS	1319	Technical Drawing for Interior Designers
INDS	1371	Introduction to Green Design
INDS	1372	Computer-Aided Drafting for Interior Designers
INDS	1373	Green Interiors I

#### Summer

INDS	1351	History of Interiors I
MATH	1314	College Algebra <sup>2</sup>

### SECOND YEAR

#### First Semester

HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
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	2330	Interior Design Building Systems
PHED / DANC		Any activity course (See PHED / DANC Core Options)

ELECTIVE \*

#### Summer

INDS	1271	Perspectives on Sustainable Living and Environmentally Conscious Building <b>-OR-</b> INDS 1280 Cooperative Education - Interior Design - Green Design
INDS	2335	Residential Design II
INDS	2373	Green Interiors II (Capstone)

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

2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-2305, MATH-2312, MATH-2318, or MATH-2320  
 \* Elective (3 credit hours): Any ARTS, DFTG, or INDS course not listed above

## AAS – Green Interior and Architectural Design

72 credit hours

### FIRST YEAR

#### First Semester

DFTG	1309	Basic Computer-Aided Drafting <sup>1</sup>
ECON	1301	Introduction to Economics (See other Social / Behavioral Science Core Options)
INDS	1301	Basic Elements of Design
INDS	1341	Color Theory and Application
INDS	1371	Introduction to Green Design

#### Second Semester

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
MATH	1314	College Algebra <sup>2</sup>
PHED / DANC		Any activity course (See PHED / DANC Core Options)

#### Summer

ENGL	1301	Composition/Rhetoric I
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

### SECOND YEAR

#### First Semester

HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
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

CNBT	2317	Green Building
INDS	1345	Commercial Design I
INDS	2330	Interior Design Building Systems
INDS	2335	Residential Design II
INDS	2374	Sustainable Living

### Summer

INDS	1271	Perspectives on Sustainable Living and Environmentally Conscious Building –OR– INDS 1280 Cooperative Education - Interior Design - Green Design
INDS	2373	Green Interiors II (Capstone)

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

2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-2305, MATH-2312, MATH-2318, or MATH-2320

## Certificate - Interior and Architectural Design

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	2315	Lighting for Interior Designers

#### Second Semester

INDS	1345	Commercial Design I
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INDS	2335	Residential Design II
INDS	2373	Green Interiors II (Capstone)

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

## Certificate - Level II - Green Interior and Architectural Design

54 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

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

### SECOND YEAR

#### First Semester

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

CNBT	2317	Green Building
INDS	1345	Commercial Design I
INDS	2330	Interior Design Building Systems
INDS	2335	Residential Design II
INDS	2374	Sustainable Living

#### Summer

INDS	2373	Green Interiors II (Capstone)
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*1. Tech Prep course which may have been completed in high school*

## Certificate - Level I - Green Interior and Architectural Design

21 credit hours

### First Semester

DFTG	1309	Basic Computer-Aided Drafting <sup>1</sup>
INDS	1315	Materials, Methods and Estimating
INDS	1371	Introduction to Green Design

### Second Semester

CNBT	2317	Green Building
INDS	1373	Green Interiors I
INDS	2374	Sustainable Living

### Summer

INDS	2373	Green Interiors II (Capstone)
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*1. Tech Prep course which may have been completed in high school*

## MSAA – Green Interior and Architectural Design

12 credit hours

### First Semester

DFTG	1309	Basic Computer-Aided Drafting <sup>1</sup>
INDS	1371	Introduction to Green Design

### Second Semester

INDS	1373	Green Interiors I
INDS	1375	Green Building Certification Training

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

*Note: Some of the courses in these award programs may require prerequisites. Please check the course descriptions.*

## 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.

DFTG	1317	Architectural Drafting – Residential
INDS	1301	Basic Elements of Design
INDS	1341	Color Theory and Application
INDS	1345	Commercial Design I (Capstone)

*Note: Some of the courses in these award programs may require prerequisites. Please check the course descriptions.*

## Interpreter Preparation Program / Deaf

Also see Associate of Arts - American Sign Language.

### Department Chair:

Ana Giron                      SCC - G215    972.881.5724

### Academic Advisor:

Caryn Hawkins                PRC - F133    972.377.1655

### Program Options:

#### AAS - Interpreter Preparation Program / Deaf Certificate - Interpreter Trainee

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.

## AAS – Interpreter Preparation Program / Deaf

71-72 credit hours

### FIRST YEAR

#### First Semester

ENGL	1301	Composition / Rhetoric I
MATH	1314	College Algebra <sup>1</sup>
SGNL	1401	American Sign Language (ASL): Beginning I <sup>+</sup>
SLNG	1347	Deaf Culture
SPCH	1311	Fundamentals of Speech Communication <sup>2</sup>

#### Second Semester

DRAM	1351	Acting I
ENGL	1302	Composition / Rhetoric II
SGNL	1402	American Sign Language (ASL): Beginning II <sup>+</sup>
SLNG	1311	Fingerspelling and Numbers
SLNG	1321	Introduction to the Interpreting Profession
PHED / DANC		Any one credit hour activity course (See PHED / DANC Core Options)

## SECOND YEAR

### First Semester

PHIL	2306	Introduction to Ethics <sup>3</sup> (See other Humanities / Fine Arts Core Options)
PSYC	2301	General Psychology <sup>5</sup>
SGNL	2301	American Sign Language (ASL): Intermediate I <sup>+</sup>
SLNG	2301	Interpreting
SOCI	2319	Minority Studies
TECHNICAL CORE #		

### Second Semester

SGNL	2302	American Sign Language (ASL): Intermediate II <sup>+</sup>
SLNG	2266	Practicum I - Sign Language Interpretation and Translation
SLNG	2311	Interpreting in Specialized Settings
SLNG	2403	Transliterating
TECHNICAL CORE #		

### Summer

SLNG	2267	Practicum II - Sign Language Interpretation and Translation (Capstone)
SLNG	2331	Interpreting III

1. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417 or MATH-2419

2. No substitutions

3. PHIL-2306 is recommended for IPPD majors

# Technical Cores: Students MUST select 2 of the following courses (6 credit hours), including no more than 3 credit hours of CRIJ, with the approval of the Department Chair to complete the Technical Core: ANTH-2351; BMGT-2309; BUSI-1307; CRIJ-1301, or CRIJ-1306 or CRIJ-1313; SOCI-1306; or 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

33 credit hours

### FIRST YEAR

#### First Semester

SGNL	1401	American Sign Language (ASL): Beginning I <sup>+</sup>
SLNG	1347	Deaf Culture
ELECTIVE *		
ELECTIVE *		

#### Second Semester

PHED / DANC	Any one credit hour activity course (See PHED / DANC Core Options)	
SGNL	1402	American Sign Language (ASL): Beginning II <sup>+</sup>
SLNG	1311	Fingerspelling and Numbers
ELECTIVE *		

#### Summer

SGNL	2301	American Sign Language (ASL): Intermediate I <sup>+</sup>
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## SECOND YEAR

### First Semester

SGNL	2302	American Sign Language (ASL): Intermediate II <sup>+</sup>
SLNG	1321	Introduction to the Interpreting Profession (Capstone)

\* Electives (9 credit hours): ANTH-2351, BMGT-2309, BUSG-2309, BUSI-1307, DRAM-1351, ENGL-1301, ENGL-1302

+ American Sign Language courses are also transfer courses and may be used, at some institutions, to satisfy a Foreign Language requirement

## Marketing

### Department Chair:

Paula Miller      SCC - K229      972.881.5179

### Academic Advisors:

Tom Bailey      PRC - F131      972.377.1771  
Debra Lamb      SCC - G141      972.881.5165

## **Program Options:**

### **AAS - Marketing**

*Marketing Track*

*International Business Track*

### **Certificate - Marketing**

### **Certificate - International Business**

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 for students new to marketing and to provide methods for improving skills for people already employed in marketing careers. Marketing students who have questions should visit with the Discipline Lead.

Through a transfer agreement, students may earn their Associate of Applied Science (AAS) degree in Marketing from Collin and transfer to numerous universities in Texas where their Collin courses may be applied toward Bachelor of Applied Arts and Science (BAAS) and Bachelor of Applied Technology (BAT) degrees.

The International Business Track within the Marketing AAS degree is for people who wish to work in international environments. The international track emphasizes skill development in the areas of both marketing and management among various cultures.

Students planning to transfer to a college or university should check with the Collin academic advisors 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. Students should complete a petition for Tech Prep credit as soon as possible upon admission to Collin.

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*NOTE: 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, Northwood University, University of North Texas (UNT), UT Brownsville, and Tarleton State University.*

## **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
SPCH 1321	Business and Professional Speaking (See other Speech Core Options)

#### **Second Semester**

BMGT 1344	Negotiations and Conflict Management
HUMA 1301	Introduction to the Humanities (See other Humanities/Fine Arts Core Options)
IBUS 2341	Intercultural Management
PHED/DANC	Any activity course (See PHED / DANC Core Options)

TECHNICAL COURSE 1

TECHNICAL COURSE 2

### **SECOND YEAR**

#### **First Semester**

BCIS 1305	Business Computer Applications
BMGT 1305	Communications in Management
IBUS 1354	International Marketing Management
TECHNICAL COURSE 3	
TECHNICAL COURSE 4	

#### **Second Semester**

ECON 1301	Introduction to Economics <sup>2</sup>
TECHNICAL COURSE 5	
TECHNICAL COURSE 6	
TECHNICAL COURSE 7	
TECHNICAL COURSE 8	

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1. May substitute MATH-1324 or MATH-1314  
(recommended for transfer students)

2. May substitute ECON-2301, ECON-2302, PSYC-2301, or PSYC-2302

This degree has two tracks. Students must select one of the following tracks and complete its technical courses listed below:

#### **AAS - Marketing - Marketing Track:**

Technical Course 1	MRKG-2333 Principles of Selling
Technical Course 2	MRKG-2349 Advertising and Sales Promotion
Technical Course 3	BMGT-1391 Special Topics in Business Administration and Management, General
Technical Course 4	BUSG-2309 Small Business Management/Entrepreneurship



Technical Course 5	MRKG-1301 Customer Relationship Management
Technical Course 6	MRKG-1302 Principles of Retailing
Technical Course 7	MRKG-2348 Marketing Research and Strategies
Technical Course 8	MRKG-2381 Cooperative Education - Marketing/Marketing Management, Management General <sup>3</sup> (Capstone)
<b>AAS - Marketing - International Business Track:</b>	
Technical Course 1	IBUS-1391 Special Topics in International Business
Technical Course 2	BMGT-1307 Team Building
Technical Course 3	HRPO-2331 International Human Resources Management
Technical Course 4	IBUS-1351 Multinational Enterprise and Partnerships
Technical Course 5	BMGT-2309 Leadership
Technical Course 6	IBUS-1305 Introduction to International Business and Trade
Technical Course 7	BMGT-1327 Principles of Management
Technical Course 8	IBUS-1380 Cooperative Education - International Business/Trade/Commerce <sup>4</sup> (Capstone)

3. May substitute MRKG-1380

4. May substitute IBUS-2381

Note: Substitutions for WECM courses may be made only with written approval of the Department Chair.

## Certificate – Marketing

18 credit hours

### First Semester

MRKG 1311	Principles of Marketing
MRKG 2333	Principles of Selling
MRKG 2349	Advertising and Sales Promotion

### Second Semester

MRKG 1301	Customer Relationship Management
MRKG 1380	Cooperative Education – Marketing/Marketing Management, General <sup>1</sup> (Capstone)
MRKG 2348	Marketing Research and Strategies

1. May substitute MRKG-2381

Note: Substitutions for WECM courses may be made only with written approval of the Department Chair.

## Certificate - International Business

18 credit hours

### First Semester

IBUS 1391	Special Topics in International Business
ELECTIVE *	

### Second Semester

IBUS 2341	Intercultural Management
ELECTIVE *	
ELECTIVE *	

### Summer Semester

IBUS 1380	Cooperative Education – International Business/Trade/Commerce <sup>1</sup> (Capstone)
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1. May substitute IBUS-2381

\* Electives (9 credit hours): HRPO-2331, IBUS-1305, IBUS-1351, or IBUS 1354

Note: Substitutions for WECM courses may be made only with written approval of the Department Chair.

## Music, Commercial

Music also has an academic transfer program.

Also see Music, Commercial / Audio Engineering

### Department Chair:

Christopher Morgan, Ph. D.	SCC - B183	972.516.5010
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### Academic Advisors:

John Ciccia	SCC - G148	972.578.5563
Torrey West	PRC - F132	972.377.1513

### Program Options:

#### AAS - Commercial Music Certificate - Music Business

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.

## AAS – Commercial Music

64 - 67 credit hours

### FIRST YEAR

#### First Semester

ARTC	1325	Introduction to Computer Graphics
MUSB	1305	Survey of the Music Business
MUSC	1327	Audio Engineering I ~
MUSI	1301	Music Fundamentals

#### Second Semester

MUSC	1313	Commercial Music Theory I
MUSC	1331	MIDI I
MUSC	2427	Audio Engineering II ~
MUSI	1116	Aural Skills I <sup>1</sup>
SPCH	1321	Business and Professional Speaking (See Speech Core Options)

ELECTIVE \*

### SECOND YEAR

#### First Semester

ENGL	1301	Composition / Rhetoric I
MATH	1314	College Algebra (See Mathematics / Natural Science Core Options)
MUSB	2301	Music Marketing
MUSC	2335	MIDI II
MUSP1113		Introductory Group Piano I – <b>OR</b> – MUSI-1181 Beginning Piano I

ELECTIVE \*

#### Second Semester

MUSB	2350	Commercial Music Project (Capstone)
MUSC	1405	Live Sound I
MUSI	1307	Introduction to Music Literature <sup>2</sup>
MUSP	1114	Introductory Group Piano II – <b>OR</b> – MUSI-1182 Beginning Piano II
PHED / DANC		Any activity course (See PHED / DANC Core Options)
PSYC	2301	General Psychology (See Social/Behavioral Science Core Options)

ELECTIVE \*

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~ Audio Engineering courses (MUSC-1327, MUSC-2427, MUSC-2447 and MUSC-2448) are offered in both eight- and sixteen-week formats. Students planning to follow the curriculum outline above may need to take the courses in the eight-week format in order to meet the prerequisite requirements.

1. Required for Commercial Music Majors

2. Required to fulfill the Humanities / Fine Arts core requirement - No course substitutions

\*\* Electives: (minimum of 10 credit hours) any MUAP, any MUEN, MUSB-1341, MUSB-1391, MUSB-2345, MUSB-2355, MUSB-2380, MUSC-1209, MUSC 1303, MUSC-1321, MUSC-1323, MUSC-1333, MUSC-2313, 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, MUSI 2312, MUSP-1104, MUSP-1105, MUSP-1110, MUSP-1117, MUSP-1127, MUSP-1151, MUSP-1153, MUSP-1202, MUSP-2230, MUSP-2233, MUSP-2235, MUSP-2237 or MUSP-2249

## Certificate - Music Business

33 - 34 credit hours

### FIRST YEAR

#### First Semester

MUSB	1305	Survey of the Music Business
MUSB	2301	Music Marketing
MUSC	1303	History of Popular Music
MUSC	1327	Audio Engineering I
SPCH	1321	Business and Professional Speaking

#### Second Semester

MUSB	1341	Concert Promotion and Venue Management
MUSB	1391	Special Topics in Music Business Management and Merchandising
MUSB	2345	Live Music and Talent Management
MUSB	2350	Commercial Music Project (Capstone)
MUSB	2355	Legal Aspects of the Entertainment Industry

ELECTIVE \*

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\* Elective - (minimum of 3 credit hours): MUSB-2380, MUSC-1331, MUSC-1405 or MUSC-2427

## Music, Commercial/Audio Engineering

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Music also has an academic transfer program.  
Additionally, see Music, Commercial

### Department Chair:

Christopher Morgan, Ph.D.-

SCC - B183 972.516.5010

### Academic Advisors:

John Ciccia SCC - G148 972.578.5563

Torrey West PRC - F132 972.377.1513

### Program Option:

#### Certificate - Audio Engineering

Collin's Audio Engineering Certificate program offers students the training and skills needed for today's professional recording studio environments. The curriculum focuses on developing the expertise needed to work as a mixing engineer in both large and small studio environments. In addition to the studio-based classes such as the audio engineering and MIDI courses, the one-year certificate degree also develops hands-on proficiency in running live sound, understanding music business contracts and marketing as well as performing audio equipment troubleshooting.

## Certificate - Audio Engineering

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)

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*Note: ~ Audio Engineering courses (MUSC-1327, MUSC-2427, MUSC 2447 and MUSC 2448) are offered in both eight- and sixteen-week formats. Students planning to follow the curriculum outline above would need to take the courses in the eight-week format in order to meet the prerequisite requirements.*

## Nursing

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Nursing also has an academic transfer program.

### Program Director:

Nell Ard, Ph.D., RN, CNE, ANEF

CPC - B336 972.548.6772

### Academic Advisor:

Erin Darity CPC - D117F 972.548.6778

### Program Options:

#### AAS – Nursing

#### LVN / Paramedic Bridge to the AAS - Nursing

#### Program

#### ESC - Healthcare Case Management

#### MCAA - Certified Nurse Assistant

Collin's Associate Degree Nursing (ADN) Program prepares students to make application to the Texas Board of Nursing for licensure as a registered nurse. The nursing curriculum is approved by the Texas Board of Nursing and accredited by the National League for Nursing Accrediting Commission (NLNAC). Students must meet eligibility requirements for licensure as established by the Texas Board of Nursing. 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 Associate of Arts - Nursing Field of Study.

### **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.collin.edu/nursing](http://www.collin.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:

3343 Peachtree Road NE, Suite 500  
Atlanta, GA 30326  
404.975.5000  
[www.nlac.org](http://www.nlac.org)

### **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.collin.edu/nursing](http://www.collin.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 State Health Services (TCSHS) \*\*

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*\*\*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 Sciences and 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>1</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  
SOC 1301 Introduction to Sociology -OR- SOCI-1306 Social Problems

#### Second Semester

HUMA 1301 Introduction to the Humanities (See other Humanities / Fine Arts Core Options)  
RNSG 2207 Transition to Nursing Practice (Capstone)  
RNSG 2535 Integrated Client Care Management  
RNSG 2561 Clinical IV - Nursing - Registered Nurse Training

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#### 1. No course substitutions

Note 1: The communication competency is met throughout the degree

Note 2: 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

### LVN / Paramedic Bridge Program

The LVN / Paramedic Bridge Program at Collin College is designed for individuals who are currently either an LVN or a Paramedic with a minimum of one year experience. The bridge program enables these individuals to be able to fast track through the generic nursing program based upon their previous clinical experiences and ability to demonstrate knowledge in theory and competency of clinical skills.

The LVN / Paramedic Bridge Program has two Tracks. One which enables the student to bridge to the second semester of the nursing program (Track I) and the other which enables the student to bridge the entire first year of the generic nursing program (Track II). All LVN / Paramedic Bridge students must be eligible for admission into the nursing program according to the point system used for selection. A minimum of 11 points must be achieved.

Track I students, after demonstrating eligibility, will then take the *Nursing Accelerated Challenge Exam (NACE) – PN to RN*. Upon successful completion of the exam, the LVN / Paramedic will then be allowed to demonstrate their competency on first semester nursing skills: vital signs, physical assessment, glucose monitoring, medication administration – except intravenous medications, and sterile dressing changes. The student will then take RNSG 1227 (Transition from Vocational / Paramedic to Professional Nursing). Upon successful completion of this course, the student will be given credit for RNSG 1219 and RNSG 1523. The first semester clinical course (RNSG 1360) will be waived based upon the individual's previous experiences as either an LVN or Paramedic. If the student is unsuccessful in any of the requirements, then they can apply to the generic nursing program and will need to compete with the applicant pool for selection into the nursing program.

Track II students must successfully complete all elements of Track I. If their previous work history indicates experiences in medical / surgical and mental health, the student will be allowed to challenge the second semester of the nursing program. The student will need to successfully complete two exams: *Nursing Care of Adults I* and *Comprehensive Psychiatric Nursing*. Upon successful completion of the exams, the LVN / Paramedic will then be allowed to demonstrate their competency on second semester nursing skills; catheterization, nasogastric tube insertion, intravenous starts, intravenous medications, and oxygen therapy / suctioning / tracheostomy care. Upon successful completion of both the exams and the skills, the student will be given credit for RNSG 1229 and RNSG 2504. The second clinical course (RNSG 1461) will be waived based upon the individual's previous experiences as either an LVN or Paramedic. If the student is unsuccessful in any of the Track II

requirements, then the individual is eligible to continue as a Track I student.

## Nursing Bridge for LVN /Paramedic

67 credit hours

### Prerequisites

BIOL	2401	Anatomy and Physiology I
BIOL	2402	Anatomy and Physiology II
BIOL	2421	Microbiology
ENGL	1301	Composition / Rhetoric I
MATH	1342	Statistics <sup>1</sup>
PSYC	2301	General Psychology <sup>1</sup>
PSYC	2314	Life Span Psychology

1. No course substitutions

### Track I - Completion allows student to enter the second semester of the AAS - Nursing program:

1. Successfully complete exam: *Nursing Acceleration Challenge Exam I - PN to RN*
2. Successful validation for first semester skills, within two attempts
3. RNSG 1227, Transition for Vocation / Paramedic to Professional Nursing

Upon successful completion of Track I - 1, 2 and 3 (above), student will receive credit for RNSG 1219 and RNSG 1523.

### Track II - Completion allows student to enter the third semester of the AAS - Nursing program:

1. Successfully complete Track I
2. Successfully complete two exams: *Nursing Care of Adults I and Comprehensive Psychiatric Nursing*
3. Successful validation of second semester skills, within two attempts

Upon successful completion of Track II - 1, 2 and 3 (above), student will receive credit for RNSG-1229 and RNSG-2504.

## ENHANCED SKILLS CERTIFICATE

The Certificate in Healthcare Case Management is designed to introduce students to the practice and specialized topics concerning healthcare case management. The certificate targets practicing nurses, social workers, respiratory therapists or other healthcare professionals by teaching a multifaceted healthcare case management approach focusing on the coordination and

integration of the direct delivery of patient services. The certificate also includes utilization management, medical necessity and the effective and efficient utilization of healthcare resources. The case management process presented explores how the cost and quality components of healthcare services and patient care are balanced by achieving acceptable optimal outcomes while managing cost of care. Course topics explored include the historical perspective of healthcare delivery, the evolution of case management, the roles and models of case management, case management concepts, case management practice including health promotion and illness prevention, disease management, education, referrals, consultation, and collaboration. Exercises with contrived cases give students the opportunity to practice what they have learned.

## ESC-Healthcare Case Management <sup>1</sup>

9 credit hours

HPRS	2371	The Case Management Process
HPRS	2372	Case Management Coordination and Financial Management
HPRS	2373	Case Studies in Healthcare Case Management

1. Prerequisite: Student should have been awarded an AAS or BS in Nursing, or current certification or licensure in a healthcare field or profession.

## MSSA - Certified Nurse Assistant

14 credit hours

DSAE	1340	Diagnostic Electrocardiography
ECRD	1111	Electrocardiography
NURA	1160	Clinical - Nursing Aide and Patient Care Assistant
NURA	1301	Nurse Aide for Health Care
PLAB	1323	Phlebotomy
PLAB	1360	Clinical - Phlebotomy

## Office Systems Technology

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### Department Chair:

Mary Milford                    PRC - H119    469.365.1801

### Office Systems Technology Faculty Contacts:

Linda Thompson                CPC - C201B   972.548.6815

Mary Jane Tobaben            SCC - J116     972.881.5170

### Academic Advisor:

Hoi Vu                            SCC - G144    972.881.5561

### Program Options:

**AAS - Office Systems Technology**

**Certificate - Office Systems Technology**

**Certificate - Medical Office Support**

**MSAA – Accounting Support**

**MSAA – Office Systems Technology**

The Office Systems Technology Program is designed to incorporate both the technical and behavioral aspects of careers in the general or medical fields. Areas of study include: office keyboarding; word processing, desktop publishing; proofreading and editing; records and information management; business correspondence and communications; database, presentation, and spreadsheet software; office management; and manual and computerized office accounting.

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. Students who graduate Spring 2010 or later, will not need to petition for their Tech Prep credit.

## AAS – Office Systems Technology

60 credit hours

### FIRST YEAR

#### First Semester

COSC 1301    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

ECON 1301    Introduction to Economics  
(See other Social / Behavioral Science Core Options)

MATH 1332    College Mathematics<sup>1</sup>

PHED/DANC    Any activity course  
(See other PHED / DANC Core Options)

POFI 2301    Word Processing - MS Word

POFT 2203    Speed and Accuracy Building

### Summer

HUMA 1301    Introduction to the Humanities  
(See other Humanities / Fine Arts Core Options)

ELECTIVE \*

## SECOND YEAR

### First Semester

ITSC 1309    Integrated Software Applications I - MS Office

POFT 2312    Business Correspondence and Communication

ELECTIVE \*

ELECTIVE \*

### Second Semester

POFT 1349    Administrative Office Procedures II (Capstone)

SPCH 1311    Fundamentals of Speech Communication  
(See other Speech Core Options)

ELECTIVE \*

ELECTIVE \*

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1. May substitute MATH-1324 or MATH-1314

\* Electives (15 hours): ACNT-1311, BMGT-2309, HITT-1311, HPRS-2321, IMED-1301, ITSW-1304, ITSW-1307, LGLA-1307, LGLA-2333, MDCA-1343, POFI-1301, POFI-2331, POFM-1300, POFM-1380, POFT-1380, POFT-2380, or SRGT-1301

## Certificate - Office Systems Technology

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  
 POFT 1349 Administrative Office Procedures II (Capstone)  
 POFT 2312 Business Correspondence and Communication

**ELECTIVE \***

*\* Elective (3 credit hours): ACNT-1303, POFI-2331, or POFT-1380*

**Certificate - Medical Office Support**

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

**Second Semester**

HPRS 2321 Medical Law and Ethics for Health Professionals  
 ITSC 1309 Integrated Software Applications I - MS Office  
 MDCA 1343 Medical Insurance/Billing  
 POFM 1300 Medical Coding Basics  
 POFT 2312 Business Correspondence and Communication

**Summer**

POFT 1319 Records and Information Management I  
 POFT 1349 Administrative Office Procedures II (Capstone)

**ELECTIVE\***

*\* Elective (3 credit hours): ACNT-1303, ACNT-1311, HITT-1311, ITSW-1304, ITSW-1307, POFI-2331, or POFM-1380*

**MSAA – Accounting Support**

9 credit hours

**First Semester**

ACNT 1303 Introduction to Accounting I  
 ACNT 1311 Introduction to Computerized Accounting  
 ITSC 1309 Integrated Software Applications I

*Note: Some of the courses in this award program may require prerequisites. Please check the course descriptions.*

**MSAA – Office Systems Technology**

12 credit hours

**First Semester**

ITSC 1309 Integrated Software Applications I  
 POFI 2301 Word Processing  
 POFT 1319 Records and Information Management I  
 POFT 2301 Intermediate Keyboarding

*Note: Some of the courses in this award program may require prerequisites. Please check the course descriptions.*

**Paralegal / Legal Assistant**

Also see AA - Paralegal/Legal Assistant

**Department Chair:**

Marsha Griggs SCC - I204 972.881.5185

**Academic Advisor:**

PRC - F134 972.377.1780

**Program Options:**

**AAS - Paralegal/Legal Assistant**

**Certificate - Paralegal General**

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.

## AAS – Paralegal/Legal Assistant

63 credit hours

### FIRST YEAR

#### First Semester

COSC	1301	Computers and Technology <sup>1</sup>
ENGL	1301	Composition/Rhetoric I <sup>2</sup>
LGLA	1307	Introduction to Law and the Legal Professions
MATH	1332	College Mathematics <sup>3</sup>
TECHNOLOGY ELECTIVE*		

#### Second 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 (See other Humanities / Fine Arts Core Options)
LGLA	1342	Federal Civil Litigation
ELECTIVE **		

### SECOND YEAR

#### First Semester

LGLA	1344	Texas Civil Litigation
LGLA	2303	Torts and Personal Injury Law
LGLA	2311	Business Organizations
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)
ELECTIVE **		

#### Second Semester

LGLA	1353	Wills, Trusts, and Probate Administration
LGLA	1355	Family Law

LGLA	2239	Certified Legal Assistant Review (Capstone) <sup>6</sup>
PHED / DANC	Any activity course (See PHED / DANC Core Options)	

#### ELECTIVE \*\*

*Note: No substitutions permitted.*

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 1301.
  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-1343, LGLA-1380, LGLA-2307, LGLA-2333, or RELE-1311

## Paralegal General Certificate

29 credit hours

### First Semester

LGLA	1307	Introduction to Law and the Legal Professions
LGLA	1342	Federal Civil Litigation
LGLA	2303	Torts and Personal Injury Law
TECHNOLOGY ELECTIVE *		

### Second Semester

LGLA	1353	Wills, Trusts, and Probate Administration
LGLA	1355	Family Law
LGLA	1344	Texas Civil Litigation
LAW ELECTIVE**		

### Third Semester

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-1301, LGLA-2333, or POFI-1301. If a student is planning further study in a business-related area, the student should take BCIS -305 rather than COSC-1301.*

\*\* *Law Elective (3 credit hours): BUSI-2301, CRIJ-1306, CRIJ-1310, LGLA-1343, LGLA-1380, LGLA-2307, LGLA-2311, LGLA-2333, or RELE-1311*

## Photography, Commercial

Also see *Graphic Design and Web*.

*Photography also has an academic transfer program.*

### Department Chair:

Laura Flores                    SCC - K241    972.578.5527

### Academic Advisors:

John Ciccia                    SCC - G148    972.578.5563

Torrey West                    PRC - F132    972.377.1513

### Program Options:

**AAS - Commercial Photography**

**Certificate - Commercial Photography**

For over twenty years, the Communication Design department (formerly Applied Graphic Design Technology) at Collin has offered industry-standard education in the creative service fields of animation, digital video, graphic design, web and interactive design. All full-time faculty have industry experience and all associate faculty are practicing professionals. Current industry practices and standards are a central component of classroom instruction. There is an elective option for the most diligent students to earn credit through local industry internships. Guest speakers from industry are featured on an on-going basis.

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 – Commercial Photography

72 credit hours

### FIRST YEAR

#### First Semester

ARTC 1325	Introduction to Computer Graphics
ARTC 2311	History of Communication Graphics
ARTS 1313	Historical Foundation of Photography / Imaging Technology (See other Humanities / Fine Arts Core Options)
ARTS 1316	Drawing I
ARTS 2356	Photography I / Darkroom <b>-OR-</b> PHTC-1311 Fundamentals of Photography / Digital

#### Second Semester

ARTC 1305	Basic Graphic Design
ARTV 1211	Storyboard
ENGL 1301	Composition / Rhetoric I
PHTC 1300	Photo Digital Imaging I
LIGHTING COURSE <i>Select one of the following:</i>	
PHTC 1345	Illustrative Photography I
PHTC 1353	Portraiture I
PHTC 2342	Fashion Photography

#### Third Semester

ARTC 1313	Digital Publishing I - InDesign
IMED 1316	Web Design I
MATH 1332	College Mathematics <sup>1</sup>
PHED / DANC	Any one credit hour activity course (See PHED / DANC Core Options)
SPCH 1311	Fundamentals of Speech Communication (See other Speech Core Options)

### SECOND YEAR

#### First Semester

ARTC 1349	Art Direction I
FLMC 1331	Video Graphics and Visual Effects I
PHTC 2340	Photographic Studio Management
PHTC 2349	Photo Digital Imaging II
ELECTIVE *	

#### Second Semester

ARTV 1351	Digital Video
PHTC 2343	Portfolio Development (Capstone) <sup>2</sup>
PSYC 2302	Applied Psychology

(See other Social/Behavioral Science  
Core Options)

CREATIVE COURSE *Select one of the following:*

ARTS 2336 Papermaking / Bookbinding I

PHTC 1343 Expressive Photography

ELECTIVE \*

*May substitute MATH-1314, MATH-1316, MATH-1324,  
MATH-1325, MATH-1342, MATH-1350, MATH-1351,  
MATH-2305, MATH-2312, MATH-2318 or MATH-2320*

1. *May substitute ARTC-2335*

\* *Electives (minimum of 6 credit hours): ARTC-1353,  
ARTC-2349, COMM-1316, IMED-2315, or any PHTC  
(not listed above)*

## Certificate - Commercial Photography

42 credit hours

### FIRST YEAR

#### First Semester

ARTC 1305 Basic Graphic Design

ARTC 1325 Introduction to Computer Graphics

ARTC 2311 History of Communication Graphics

ARTS 2356 Photography I / Darkroom **-OR-**  
PHTC-1311 Fundamentals of  
Photography / Digital

#### Second Semester

ARTC 1353 Computer Illustration I

PHTC 1300 Photo Digital Imaging I

LIGHTING COURSE *Select one of the following:*

PHTC 1345 Illustrative Photography I

PHTC 1353 Portraiture I

PHTC 2342 Fashion Photography

#### Third Semester

IMED 1316 Web Design I

### SECOND YEAR

#### First Semester

ARTC 1313 Digital Publishing I - InDesign

ARTC 1349 Art Direction I

PHTC 2340 Photographic Studio Management

PHTC 2349 Photo Digital Imaging II

CREATIVE COURSE *Select one of the following:*

ARTS 2336 Papermaking / Bookbinding I

PHTC 1343 Expressive Photography

### Second Semester

PHTC 2343 Portfolio Development (Capstone) <sup>1</sup>

1. *May substitute ARTC-2335*

## Real Estate

### Department Chair:

Mary Milford PRC - H210 972.365.1801

### Academic Advisor:

PRC - F134 972.377.1780

### Department Website:

<http://www.collin.edu/realestate>

### Program Options:

AAS - Real Estate

Certificate - Real Estate Brokers

Certificate - Real Estate General

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.

## AAS – Real Estate

62 credit hours

### FIRST YEAR

#### First Semester

COSC	1301	Computers and Technology <sup>1</sup>
ENGL	1301	Composition/Rhetoric I <sup>2</sup>
MATH	1332	College Mathematics <sup>3</sup>
PHED / DANC		Any activity course (See PHED / DANC Core Options)
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 (See other Speech Core Options)

### 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 (See other Humanities / Fine Arts Core Options)
RELE	1319	Real Estate Finance
RELE	2381	Cooperative Education - Real Estate (Capstone)
ELECTIVE	*	
ELECTIVE	*	

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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-1301.

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.

## Certificate - Real Estate Brokers \*

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	**	

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\*\* 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.

\* This certificate provides eligibility for a credentialing exam.

## Certificate - Real Estate General \*

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	**	

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\*\* 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.

- \* This certificate provides eligibility for a credentialing exam.

## Respiratory Care

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### Program Director:

Araceli Solis, BS, RRT, RCP  
CPC - B203J 972.548.6870

### Academic Advisor:

Tori Hoffman CPC - D117E 972.548.6779

### Program Option:

#### AAS - Respiratory Care

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 Associate of Applied Science (AAS) degree and qualifies the individual to apply for the Registered Respiratory Therapist board examination given by the National Board for Respiratory Care.

Mathematics and science courses that are part of the curriculum but completed at a regionally accredited institution, must have been completed within five years of the fall semester of the admission year in order to receive transfer credits. 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 Information Packet, at [www.collin.edu/rcp](http://www.collin.edu/rcp), for details on selective admission process.

### ACCREDITATION

The Respiratory Program is accredited by the Commission on Accreditation for Respiratory Care (CoARC). They may be contacted at:

### Commission on Accreditation for Respiratory Care

1248 Harwood Road  
Bedford, Texas 76021-4244  
Phone: 817.283.2835  
Fax: 817.354.8519

### 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 Respiratory Care website: [www.collin.edu/rcp](http://www.collin.edu/rcp). 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.collin.edu/rcp](http://www.collin.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 College 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 State Health Services (TDSHS) \*\*

\*\*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 and 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 Examination

Satisfactory 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.
- \* Be in good academic standing

### 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) Students planning to apply for admission to the program must have the following courses completed with a grade of "C" or better before the application deadline.
- 1) BIOL 2401 Anatomy and Physiology I
  - 2) BIOL 2402 Anatomy and Physiology II
  - 3) BIOL 2421 Microbiology
  - 4) HPRS 1204 Basic Health Profession Skills
- B) Students entering the program must be prepared to enter college-level mathematics by either completion of MATH-0310 or by placement at the MATH-1314 College Algebra level. Students must complete MATH-1314 College Algebra during or before the fall semester of the program admission year.

*Note: All science and mathematics courses that are part of the curriculum, but completed at a regionally accredited institution, must have been completed within five years of the fall semester for the fall semester of the admission year in order to receive transfer credit.*

### FIRST YEAR

#### Prerequisites

BIOL	2401	Anatomy and Physiology I
BIOL	2402	Anatomy and Physiology II
BIOL	2421	Microbiology
HPRS	1204	Basic Health Profession Skills

#### First Semester

MATH	1314	College Algebra <sup>1</sup>
RSPT	1160	Clinical I - Respiratory Care Therapist
RSPT	1201	Introduction to Respiratory Care
RSPT	1307	Cardiopulmonary Anatomy and Physiology
RSPT	1410	Respiratory Care Procedures I

#### Second Semester

RSPT	1361	Clinical II - Respiratory Care Therapist
RSPT	1411	Respiratory Care Procedures II
RSPT	2217	Respiratory Care Pharmacology
RSPT	2310	Cardiopulmonary Disease

### Summer

RSPT	1362	Clinical III - Respiratory Care Therapist
RSPT	2471	Respiratory Care Procedures III

### SECOND YEAR

#### First Semester

ENGL	1301	Composition / Rhetoric I
PSYC	2301	General Psychology <sup>2</sup>
RSPT	2255	Critical Care Monitoring
RSPT	2353	Neonatal / Pediatric Cardiopulmonary Care
RSPT	2360	Clinical IV - Respiratory Care Therapist

#### Second Semester

PHIL	2303	Introduction to Logic <sup>3</sup>
RSPT	2130	Respiratory Care Examination Preparation
RSPT	2139	Advanced Cardiac Life Support
RSPT	2231	Simulations in Respiratory Care
RSPT	2247	Specialities in Respiratory Care
RSPT	2361	Clinical V - Respiratory Care Therapist (Capstone)

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1. May substitute MATH-1324 or MATH-2312
  2. May substitute PSYC-2302 or SOCI-1301
  3. May substitute ENGL-2322, ENGL-2323, ENGL-2327, ENGL-2328, ENGL-2332, ENGL-2333, ENGL-2342, ENGL-2343, ENGL-2351, FREN-2303, FREN-2304, HIST-2311, HIST-2312, HIST-2321, HIST-2322, HUMA-1301, HUMA-1305, HUMA-1311, HUMA-2319, HUMA-2323, MUSI-1306, MUSI-1307, PHIL-1301, PHIL-1304, PHIL-2306, PHIL-2307, PHIL-2321, SPAN-2321 or SPAN-2322

Note: The communication competency is met throughout the degree.

## Semiconductor Manufacturing Technology

#### Program Director:

Dave Galley                      PRC - H213      972.377.1676

#### Academic Advisor:

Vacant                                PRC - F134      972.377.1780

#### Program Options:

**AAS - Semiconductor Manufacturing Technology**

### AAS - Semiconductor Manufacturing Technology Solar Cell Specialization Certificate - Semiconductor Manufacturing Operator Certificate - Semiconductor Manufacturing Technology Solar Cell Engineering Specialization

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 35-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.

## 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 (See other Social / Behavioral Science Core Options)
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

**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 (See other Humanities / Fine Arts Core Options)
PHED / DANC		Any activity course (See PHED / DANC Core Options)
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 \*

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

2. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419

\* Elective (3 credit hours): Any CETT, CPMT, EECT, ELMT, ENGR, ENTC, INMT, INTC, or SMFT course not listed above with approval of Program Director.

## AAS – Semiconductor Manufacturing Technology Solar Cell

69 credit hours

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

CPMT	2302	Digital Home Technology Integration
ENGL	1301	Composition/Rhetoric I
ENGR	1201	Introduction to Engineering
MATH	1314	College Algebra <sup>1</sup>
PHED / DANC		Any activity course (See PHED / DANC Core Options)
SMFT	1471	Fundamentals of Solar Cell Engineering

**Second Semester**

CETT	1403	DC Circuits <sup>2</sup>
HART	2472	Alternative Energy Perspectives, Energy Sources, Energy Storage, and Energy Distribution
MATH	1316	Trigonometry
SMFT	1475	Materials Technology, Measurement Technology and Characterization Methods Used In Semiconductor Solar Cell Manufacturing

**Summer**

PHYS	1401	General Physics I
SPCH	1311	Fundamentals of Speech Communication (See other Speech Core Options)

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

CETT	1405	AC Circuits <sup>2</sup>
ECON	1301	Introduction to Economics (See other Social / Behavioral Science Core Options)
HUMA	1301	Introduction to the Humanities (See other Humanities / Fine Arts Core Options)
SMFT	1473	Fundamentals of Silicon Solar Cell Manufacturing



### Second Semester

CETT	1380	Cooperative Education - Computer Engineering Technology/Technician (Capstone)
CETT	1429	Solid State Devices <sup>1</sup>
SMFT	2370	Semiconductor Solar Cell Manufacturing Facilities, Methods, and Safety
SMFT	2471	Advanced Solar Cell Design And Engineering

### ELECTIVE \*

1. May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419

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

\* Elective (3 credit hours): HART-1475, SMFT-2379, or any CETT, CPMT, EECT, or ENGR course

## Certificate - Semiconductor Manufacturing Operator

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

## Certificate - Semiconductor Manufacturing Technology Solar Cell Engineering

38 credit hours

### First Semester

CETT	1403	DC Circuits <sup>1</sup>
CETT	1429	Solid State Devices <sup>1</sup>
SMFT	1471	Fundamentals of Solar Cell Engineering
SMFT	1473	Fundamentals of Solar Cell Manufacturing

### Second Semester

CETT	1405	AC Circuits <sup>1</sup>
SMFT	1475	Materials Technology, Measurement Technology and Characterization Methods Used In Semiconductor Solar Cell Manufacturing
SMFT	2370	Semiconductor Solar Cell Manufacturing Facilities, Methods, and Safety

### ELECTIVE \*

### Summer

HART	2472	Alternative Energy Perspectives, Energy Sources, Energy Storage, and Energy Distribution
SMFT	2471	Advanced Solar Cell Design And Engineering (Capstone)

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

\* Elective (3 credit hours): CPMT-2302, HART-1475, SMFT-2379, or any CETT, CPMT, EECT, or ENGR course

## Surgical Technology

### Program Director:

Don Martin                      CPC - B304    214.491.6216

### Academic Advisor:

Erin Darity                      CPC - D117F   972.548.6778

### Program Option:

AAS - Surgical Technology

The Associate of Applied Science (AAS) in Surgical Technology at Collin College 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.

### **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.collin.edu/surgtech](http://www.collin.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.collin.edu/surgtech](http://www.collin.edu/surgtech).
- \* Completion of or current enrollment in the four pre-entrance 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, HPRS-1271 and SRGT-1301. 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, 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>
  - Tetanus, diphtheria – primary series or booster within the last 10 years
  - MMR – one or two doses if born before 1957
  - Varicella – 2 doses or documented age-appropriate vaccination or parent report / physician report of evidence of disease (chicken pox)
  - Hepatitis A – two doses at 0 and 6-12 months
  - Hepatitis B – three dose series at 0, 1 and 6 months
  - Combined Hepatitis 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 the 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**

69 - 71 credit hours

**FIRST YEAR**

**Prerequisite**

BIOL	2401	Anatomy and Physiology I <sup>2</sup>
BIOL	2402	Anatomy and Physiology II
HPRS	1271	Introduction to the Healthcare System <sup>1</sup>
SRGT	1301	Medical Terminology I <sup>1</sup>

**First Semester**

BIOL	2421	Microbiology
ENGL	1301	Composition / Rhetoric I
HPRS	2374	Physiopathology
PHED / DANC		Any activity course (See PHED / DANC Core Options)
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>3</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	Team Building
PHIL	2303	Introduction to Logic <sup>2</sup>

SRGT	1171	Transition to Practice for the Surgical Technologist
SRGT	2130	Professional Readiness
SRGT	2361	Clinical - Surgical Technology IV (Capstone)

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

*2 No course substitutions*

*3. May substitute ANTH-2346, ANTH-2351, ECON-1301, ECON-2301, ECON-2302, GOVT-2301, GOVT-2302, HIST-1301, HIST-1302, HIST-2301 or PSYC-2302*

# COURSE DESCRIPTIONS

## Legend

- (A) indicates an academic transfer course that may apply to a baccalaureate degree.
- (D) indicates a developmental pre-college course that does not apply to an associate degree or transfer.
- (N) indicates a course that does not apply to any college level degree or other award.
- (W) indicates a workforce course that may not transfer or apply to a baccalaureate degree.

### **ACCT2301 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. (A)

### **ACCT2302 Managerial Accounting**

Uses of accounting data by business management, cost behavior analysis, control of manufacturing product costing, cost-volume-profit analysis, budgeting controls, standard costing, responsibility accounting, and capital budgeting. Lab required. Prerequisite: ACCT2301. 3 credit hours. (A)

### **ACNT1303 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. Lab required. 3 credit hours. (W)

### **ACNT1311 Introduction to Computerized Accounting**

Introduction to utilizing the computer in maintaining accounting records with primary emphasis on a general ledger package. Lab required. Prerequisite: ACNT1303 or consent of Department Faculty Contact. 3 credit hours. (W)

### **AERS1105 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. (A)

### **AERS1106 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. (A)

### **AERS2103 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. (A)

### **AERS2104 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. (A)

### **ANTH2301 Physical Anthropology**

Overview of human origins and cultural adaptations combining study of our nearest relatives, the chimpanzees, with analysis of reproductions of fossil bones. Unit concerning forensic anthropology explains how crimes can be solved from analysis of skeletal material; students work with replicas of human bone. Opportunity to participate in field trip to zoo. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)  
Note: Students may take either ANTH2301 or ANTH2302 but not both.

### **ANTH2302 Introduction to Archaeology**

Study of famous archaeological sites and an 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)  
Note: Students may take either ANTH2301 or ANTH2302 but not both.

**ANTH2346 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.

Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

Note: Students may take either ANTH2346 or HUMA2323 but not both.

**ANTH2351 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**ANTH2389 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.

Assessment: Placement in ENGL1301; College-Level Reading. Prerequisite: Consent of Instructor. 3 credit hours. (A)

**ARAB1411 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. Lab required. 3 credit hours. (A)

**ARAB1412 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: ARAB1411 or consent of Instructor or Department Chair. 3 credit hours.

**ARCE1321 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: DFTG1309. 3 credit hours. (W)

**ARCE1352 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: DFTG1309. 3 credit hours. (W)

**ARCE2352 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: DFTG1309. 3 credit hours. (W)

**ARTC1302 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: ARTC1325. 3 credit hours. (W)

**ARTC1305 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)

**ARTC1313 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: ARTC1305. 3 credit hours. (W)

**ARTC1321 Illustration Techniques I**

A study of illustration techniques in various media. Emphasis on creative interpretation and the discipline of draftsmanship for visual communication of ideas. Lab required. Prerequisite: ARTS1316. 3 credit hours. (W)

**ARTC1325 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)

**ARTC1327 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. Prerequisites: ARTC1305 and ARTC1325. 3 credit hours. (W)

#### **ARTC1349 Art Direction I**

Creation of projects in art direction for advertising graphic campaigns for products, services, or ideas. Topics include all campaign procedures from initial research and creative strategy to final execution and presentation of a comprehensive project. Lab required. Prerequisite: ARTC1305. 3 credit hours. (W)

#### **ARTC1353 Computer Illustration I**

Use of the tools and transformation options of an industry-standard vector drawing program to create complex illustrations or drawings. Includes principles of layout and design and manipulation of text and graphics. Lab required. Prerequisite: ARTC1325. 3 credit hours. (W)

#### **ARTC1394 Special Topics in Animation, Interactive Technology, Video Graphics and Special Effects**

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)

#### **Advanced 3-D Applications**

Study of advanced computer graphics techniques using software applications adopted by the animation, visual effects and game industries. Topics will include 3-D modeling, animation, dynamics, texturing, shading, rendering and compositing in industry-standard production pipelines. Prerequisite: ARTV1345 or consent of instructor.

#### **Illustration for Digital Media**

Development of drawing techniques applied to visual concept development for animation, visual effects and games. Emphasis on traditional art methods and media for use in narrative and interactive storytelling and communication. Prerequisite: Consent of Department Chair.

#### **ARTC2301 Illustration Techniques II**

Advanced study of illustration media and techniques using digital and/or traditional tools. Emphasis on conceptualization and composition. Lab required. Prerequisite: ARTC1321 or consent of Department Chair. 3 credit hours. (W)

#### **ARTC2305 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 or fine art applications. Lab included. Prerequisite: ARTC1302. 3 credit hours. (W)

#### **ARTC2311 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. 3 credit hours. (W)

#### **ARTC2335 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)

#### **ARTC2340 Computer Illustration II**

Advanced use of software applications and/or various media with emphasis on output procedures, the resolution of complex design issues, and concept development. Lab required. Prerequisite: ARTC1353. 3 credit hours. (W)

#### **ARTC2347 Design Communication II**

An advanced study of the design process and art direction. Emphasis on form and content through the selection, creation, and integration of typographic, photographic, illustrative, and design elements. Lab required. Prerequisite: ARTC1327. 3 credit hours. (W)

#### **ARTC2349 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: ARTC1349. 3 credit hours. (W)

#### **ARTS1301 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. Assessment: Placement in at least READ0310. 3 credit hours. (A)

**ARTS1303 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. Assessment: Placement in at least READ0310. 3 credit hours. (A)

**ARTS1304 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. Assessment: Placement in at least READ0310. 3 credit hours. (A)

**ARTS1311 2-D Design**

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. (A)  
Note: Students should expect additional supply costs.

**ARTS1312 3-D Design**

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. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS1313 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. 3 credit hours. (A)

**ARTS1316 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. (A)  
Note: Students should expect additional supply costs.

**ARTS1317 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: ARTS1316. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS2311 Advanced 2-D Design**

Continued study of two-dimensional visual organization dealing with the elements and principles of design. Further exploration of the use of various black and white and/or color media. Emphasis on the resolution of complex two-dimensional design problems. 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 level during the evaluation period. Lab required. Prerequisites: ARTS1311 and ARTS1316. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS2312 Advanced 3-D Design**

Continued study of three-dimensional design problems utilizing various methods and materials. Further exploration of form in a variety of media. Emphasis on the resolution of complex three-dimensional design issues. Lab required. Prerequisite: ARTS1312. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS2316 Painting I**

Introduction to painting including use of materials, techniques, color study, and composition. Various painting styles will be practiced. Lab required. Prerequisite: ARTS1316. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS2317 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: ARTS2316. 3 credit hours. (A) Note: Students should expect additional supply costs.

**ARTS2323 Figure 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: ARTS1316. 3 credit hours. (A)  
Note: Students should expect additional supply costs.



**ARTS2324 Figure Drawing II**

Continuation of study of the life model; emphasis on personal expression and creativity. Lab required.

Prerequisite: ARTS2323. 3 credit hours. (A)

Note: Students should expect additional supply costs.

**ARTS2326 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. 3 credit hours. (A)

Note: Students should expect additional supply costs.

**ARTS2327 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: ARTS2326. 3 credit hours. (A)

Note: Students should expect additional supply costs.

**ARTS2333 Printmaking I**

Introduction to the process of intaglio and relief printing including linoleum cuts, etching, aquatint, collagraph, and monotypes. Lab required. 3 credit hours. (A)

Note: Students should expect additional supply costs.

**ARTS2334 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: ARTS2333. 3 credit hours. (A)

Note: Students should expect additional supply costs.

**ARTS2336 Papermaking/Bookbinding I**

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. (A)

Note: Students should expect additional supply costs.

**ARTS2337 Papermaking/Bookbinding II**

Advanced elements of structure and principles of design using two and three-dimensional concepts in the fiber forms of papermaking and bookbinding. Lab required. Prerequisite: ARTS2336. 3 credit hours. (A)

Note: Students should expect additional supply costs.

**ARTS2341 Jewelry/Art Metals I**

Exploration of wearable and small 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. 3 credit hours. (A)

Note: Students should expect additional supply costs.

**ARTS2342 Jewelry/Art Metals II**

Continuation of ARTS2341, Jewelry / Art Metals I with emphasis on advanced techniques and individual creative expression. Lab required. Prerequisite: ARTS2341. 3 credit hours. (A)

Note: Students should expect additional supply costs.

**ARTS2346 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. (A)

Note: Students should expect additional supply costs.

**ARTS2347 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: ARTS2346. 3 credit hours. (A)

Note: Students should expect additional supply costs.

**ARTS2348 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. (A)

Note: Students should expect additional supply costs.

**ARTS2349 Digital Art II**

Continuation of ARTS2348. Lab required.

Prerequisite: ARTS2348. 3 credit hours. (A)

Note: Students should expect additional supply costs.

**ARTS2356 Photography I/Darkroom**

Introduction to photography: basic camera operations and darkroom techniques; emphasis on visual imagination and design. Lab required. 3 credit hours. (A)

Note: Students should expect additional supply costs, including a 35mm SLR camera, film, and photographic paper.

**ARTS2357 Photography II/Darkroom**

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: ARTS2356. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

### **ARTS2366 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: ARTS1316. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

### **ARTS2367 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: ARTS2366. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

### **ARTS2389 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. (A)

### **ARTV1211 Storyboard**

Techniques of storyboarding including organizing a project's content and arranging it in a visual format. Lab required. 2 credit hours. (W)

### **ARTV1303 Basic Animation-Flash**

Examination of animation concepts, principles, and storyboard for basic production. Emphasizes creating movement and expression utilizing traditionally or digitally generated image sequences. Lab required. Prerequisites: ARTC1325 and ARTV1211. 3 credit hours. (W)

### **ARTV1341 3-D Animation I**

Intermediate level 3-D course introducing animation tools and techniques used to create movement. Emphasis on using the principles of animation. Lab required. Prerequisite: ARTV1345 or consent of Instructor. 3 credit hours. (W)

### **ARTV1343 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)

### **ARTV1345 3-D Modeling and Rendering I- Maya**

Techniques of three-dimensional (3-D) modeling utilizing industry standard 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. Prerequisite/Concurrent enrollment: ARTC1325. 3 credit hours. (W)

### **ARTV1351 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. Prerequisite: ARTV1211. Prerequisite/Concurrent enrollment: FLMC1331. 3 credit hours. (W)

### **ARTV2301 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 presentations. Emphasis on conceptualization, creativity, and visual aesthetics. Lab required. Prerequisite: ARTV1303. 3 credit hours. (W)

### **ARTV2330 2-D Animation II-Flash**

Advanced study of technical aspects of animation. Emphasizes aesthetic design and completion of an animation project. Includes application of advanced skills and knowledge. Lab required. Prerequisite: ARTV2301. 3 credit hours. (W)

### **ARTV2335 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)

### **ARTV2341 Advanced Digital Video**

Advanced digital video techniques for post-production. Emphasizes integration of special effects and animation for film, video, and the Internet. Exploration of new and emerging compression and video streaming technologies. Lab required.

Prerequisites: ARTV1351 and FLMC1304. 3 credit hours. (W)

### **ARTV2345 3-D Modeling and Rendering II- Maya**

A studio course focused on advanced 3-D modeling and rendering techniques using industry standard software, modeling techniques, camera settings, lighting, and surfacing to develop detailed environments. Lab required. Prerequisite: ARTV1345. 3 credit hours. (W)

### **ARTV2351 3-D Animation II - Maya**

Advanced level 3-D course utilizing animation tools and techniques used to develop movement. Emphasis on advanced animation techniques. Lab required. Prerequisite: ARTV1341. 3 credit hours. (W)

### **ARTV2355 Character Rigging and Animation**

Advanced work in 3-D animation. Emphasis on character modeling, rigging and animation. Lab required. Prerequisite: ARTV2351. 3 credit hours. (W)

### **BCIS1305 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. Assessment: Placement in College-Level Reading. 3 credit hours. (A)

### **BCIS1320 Introduction to Business Programming-Java**

Introduction to business programming techniques using Java. Using object-oriented and structured programming techniques, students will design, create, and debug customized business applications with Java. Lab required. 3 credit hours. (A)

### **BCIS2390 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: BCIS1305 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **BIOL1322 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. (A)

### **BIOL1323 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. (A)

### **BIOL1406 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. Assessment: Placement in ENGL1301; MATH0310; College-Level Reading. 4 credit hours. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **BIOL1407 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. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **BIOL1408 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. (A)

### **BIOL1409 Introduction to Biology II**

For non-science majors. Continuation of BIOL1408. The biology of the protistans, fungi, plants and

animals with emphasis on general human anatomy and physiology. Current topics in biology will be discussed. Dissection included. Lab required. Prerequisite: BIOL1408. 4 credit hours. (A)

### **BIOL1411 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. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **BIOL1414 Introduction to Biotechnology I**

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. Assessment: Placement in ENGL1301; MATH0310; College-Level Reading. 4 credit hours. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **BIOL1415 Introduction to Biotechnology II**

Formerly BITC1402 Lecture to focus on an integrative approach to study biomolecules with an emphasis on protein structures, functions and uses in the modern bioscience laboratory. Students will investigate the mechanisms involved in the transfer of information from DNA sequences to proteins to biochemical functions. The course will integrate biological and chemical concepts with techniques that are used in research and industry. Critical thinking will be applied in laboratory exercises using inquiry-based approaches, troubleshooting and analyzing experimental data. Lab required.

Prerequisite/Concurrent enrollment: BIOL1414. 4 credit hours. (A)

Note: This course is also offered through the Center of Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **BIOL2389 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: BIOL1406 or BIOL1408. 3 credit hours. (A)

### **BIOL2401 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: BIOL1406 with a grade of "C" or better within the last three years or consent of Department Chair. 4 credit hours. (A)

### **BIOL2402 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. (A)

### **BIOL2404 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. Lab required. 4 credit hours. (A)

### **BIOL2406 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. (A)

### **BIOL2416 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: BIOL1406. 4 credit hours. (A)

**BIOL2421 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: BIOL2402 with a grade of "C" or better within the last five years or consent of Department Chair. 4 credit hours. (A)

**BIOM1280 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)

**BIOM1355 Medical Electronic Applications**

Presentation of sensors, transducers, and supporting circuits used in medical instrumentation devices. Lab required. 3 credit hours. (W)

**BITC1350 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: BIOL1414 and BIOL1415 or consent of Instructor. 3 credit hours. (W)

**BITC2350 Bioinformatics**

Current topics in bioinformatics and computational biology. Includes methods for high-throughput data collection, storing, and accessing biological data. Covers programs and algorithms used to analyze data. 3 credit hours. (W)

**BITC2386 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. Major Requirement: Biotechnology. 3 credit hours. (W)

**BITC2387 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. Major Requirement: Biotechnology. 3 credit hours. (W)

**BITC2411 Biotechnology Laboratory I Instrumentation**

Presentation of theory, applications, and operation of various analytical instruments. Addresses separation and identification techniques including electrophoresis, spectrophotometry, and chromatography. Lab required. Prerequisites: BIOL1414 and BIOL1415 or consent of Instructor. 4 credit hours. (W)

**BITC2431 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: BIOL1406 or consent of Instructor. 4 credit hours. (W)

**BITC2441 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: BIOL1414 and BIOL1415 or consent of Instructor. 4 credit hours. (W)

**BMGT1305 Communications in Management**

Basic theory and processes of communication skills necessary for the management of an organization's workforce. 3 credit hours. (W)

**BMGT1307 Team Building**

Principles of building and sustaining teams in organizations. Includes team dynamics, process improvement, trust and collaboration, conflict resolution, and the role of the individual in the team. 3 credit hours. (W)

**BMGT1327 Principles of Management**

Concepts, terminology, principles, theories, and issues in the field of management. 3 credit hours. (W)

**BMGT1341 Business Ethics**

Discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social responsibility in management practices and business activities. Includes ethical corporate responsibility. 3 credit hours. (W)

**BMGT1344 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)

**BMGT1382 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)

**BMGT1391 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.

**BMGT2309 Leadership**

Concepts of leadership and its relationship to management. Prepares the student with leadership

and communication skills needed to motivate and identify leadership styles. 3 credit hours. (W)

**BMGT2310 Financial Management**

Development and use of accounting information to support managerial decision-making processes. Topics include managerial concepts and systems, various analysis for decision making, and planning and control. Prerequisite: ACCT2301 or ACNT1303. 3 credit hours. (W)

**BMGT2311 Change Management**

Knowledge, skills, and tools that enable a leader/organization to facilitate change in a pro-active participative style. 3 credit hours. (W)

**BMGT2331 Principles of Quality Management**

Quality throughout organizations. Includes planning and implementing quality programs in an organization and analyzing cost/benefit of quality. Also covers the impact of employee empowerment. 3 credit hours. (W)

**BMGT2341 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)

**BMGT2382 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)

**BUSG2309 Small Business Management / Entrepreneurship**

Starting, operating, and growing a small business. Includes essential management skills, how to prepare a business plan, accounting, financial needs, staffing, marketing strategies, and legal issues. 3 credit hours. (W)

**BUSI1301 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. (A)

**BUSI1307 Personal Finance**

*Formerly HECO1307*

Personal financial issues including financial planning, insurance, budgeting, credit, home ownership, savings and tax problems. 3 credit hours. (A)

**BUSI2301 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. (A)

**BUSI2304 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: ENGL1301, ENGL1302, and ENGL2311. 3 credit hours. (A)

**CDEC1313 Curriculum Resources for Early Childhood Programs**

A study of the fundamentals developmentally appropriate curriculum design and implementation in early care and education programs for children. Lab required. 3 credit hours. (W)

**CDEC1317 Child Development Associate Training I**

Based on the requirements for the Child Development Associate credential (CDA). Topics include CDA overview, observation skills, and child growth and development. The four functional areas of study are creative, cognitive, physical, and communication. Lab required. 3 credit hours. (W)

**CDEC1319 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)

**CDEC1321 The Infant and Toddler**

A study of appropriate infant and toddler programs (birth to age 3), including an overview of development, quality routines, learning environments, materials and activities, and teaching/guidance techniques. Lab required. 3 credit hours. (W)

**CDEC1323 Observation and Assessment**

A study of observation skills, assessment techniques, and documentation of children's development. Lab required. 3 credit hours. (W)

**CDEC1335 Early Childhood Development: 3-5 Years**

Principles of typical growth and development from three to five years. Emphasizes physical, cognitive, emotional, and social development. Lab required. 3 credit hours. (W)

**CDEC1358 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, language and literacy through a play-based integrated curriculum. Lab required. 3 credit hours. (W)

**CDEC1359 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)

**CDEC1370 Introduction to Teaching ESL**

An overview of ESL education. Topics include awareness of cultural diversity, assessment strategies, teaching techniques, instructional activity development and historical/philosophical concepts of ESL education. Lab required. 3 credit hours. (W)

**CDEC2166 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)

**CDEC2304 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)

**CDEC2307 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)

**CDEC2315 Diverse Cultural/Multilingual Education**

An overview of multicultural topics and education. Includes relationships with the family and community awareness and sensitivity to diversity, and individual needs of children. Lab required. 3 credit hours. (W)

**CDEC2322 Child Development Associate Training II**

A continuation of the study of the requirements for the Child Development Associate credential (CDA). The six functional areas of study include safe, healthy, learning environment, self, social, and guidance. Lab required. 3 credit hours. (W)

**CDEC2324 Child Development Associate Training III**

Continuation of the requirements for the Child Development Associate credential (CDA). The three functional areas of study include family, program management, and professionalism. Lab required. 3 credit hours. (W)

**CDEC2326 Administration of Programs for Children I**

Application of management procedures for early care and 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)

**CDEC2328 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. Lab required. 3 credit hours. (W)

**CDEC2336 Administration of Programs for Children III**

An advanced study of the skills and techniques in administering early care education programs. Lab required. 3 credit hours. (W)

**CDEC2340 Instructional Techniques for Children with Special Needs**

Exploration of development and implementation of curriculum for children with special needs from early childhood to adolescence including an overview of, learning environments, materials and activities and teaching/guidance techniques. Lab required. 3 credit hours. (W)

**CDEC2385 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)

**CETT1380 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)

**CETT1403 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)

**CETT1405 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)

**CETT1425 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)



**CETT1429 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)

**CETT1431 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)

**CETT1445 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: CETT1425 or consent of Instructor or Program Director. 4 credit hours. (W)

**CETT1457 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: CETT1405 or consent of Instructor or Program Director. 4 credit hours. (W)

**CETT2380 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)

**CHEF1301 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.

**CHEF1302 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. Lab included. Prerequisites: CHEF1301 with a grade of "C" or better, CHEF1305 with a grade of "C" or better, and IFWA1310. 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.

**CHEF1305 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)

**CHEF1310 Garde Manger**

A study of specialty foods and garnishes. Emphasis on design, techniques, and display of fine foods. Lab included. Prerequisites: CHEF1301 with a grade of "C" or better and CHEF1305 with a grade of "C" or better. 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.

**CHEF1314 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. Lab included. Prerequisites: CHEF1301 with a grade of "C" or better, CHEF1305 with a grade of "C" or better, and CHEF2331. Prerequisite/Concurrent enrollment: RSTO1304. 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.

**CHEF1341 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. Lab included. Prerequisites: CHEF 1301 with a grade of "C" or better and CHEF1305 with a grade of "C" or better. 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.

### **CHEF1345 International Cuisine**

The study of classical cooking skills associated with the preparation and service of international and ethnic cuisine. Topics include similarities between food production systems used in the United States and other regions of the world. Professional chef uniform and kitchen tools required. Lab included.

Prerequisites: CHEF 1301 with a grade of “C” or better and CHEF1305 with a grade of “C” or better. 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

### **CHEF1380 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)

### **CHEF2302 Saucier**

Instruction in the preparation of stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. Lab included. Prerequisites: CHEF 1301 with a grade of “C” or better and CHEF1305 with a grade of “C” or better. 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.

### **CHEF2331 Advanced Food Preparation**

Topics include the concept of pre-cooked food items and the preparation of canapés, hors d’œuvres, and breakfast items. Reinforces the course material of CHEF2301. Professional chef uniform and kitchen tools required. Lab included. Prerequisites: CHEF1301 with a grade of “C” or better and CHEF1305 with a grade of “C” or better. 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.

### **CHEF2341 Advanced Culinary Competition**

Skill development for culinary competition by offering advanced experience in salon presentations as well as hot food competition. Lab included.

Prerequisites: CHEF1301 with a grade of “C” or better, CHEF1305 with a grade of “C” or better, CHEF1310, CHEF1341, CHEF1345, CHEF2302, and CHEF2331. 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.

### **CHEF2380 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. Prerequisites: CHEF1301 with a grade of “C” or better and CHEF1305 with a grade of “C” or better. 3 credit hours. (W)

### **CHEF2581 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)

### **CHEM1405 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. Assessment: Placement in ENGL1301; MATH0310; College-Level Reading. 4 credit hours. (A)

### **CHEM1411 General Chemistry I**

Lecture: Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to

thermodynamics and descriptive chemistry. Lab: Basic laboratory experiments supporting theoretical principles presented in lecture section; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports. High school chemistry is strongly recommended. Lab and recitation required.

Assessment: Placement in ENGL1301; College-Level Reading. Prerequisite: MATH1314 or higher level within the last 5 years with a grade of "C" or better. 4 credit hours. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **CHEM1412 General Chemistry II**

Lecture: Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry. Lab: Basic laboratory experiments supporting theoretical principles presented in lecture section; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Lab and recitation required. Prerequisite: CHEM 1411 within the last five years with a grade of "C" or better. 4 credit hours. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **CHEM2389 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. (A)

### **CHEM2401 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: CHEM1412 within the last 5 years with a grade of "C" or better. 4 credit hours. (A)

### **CHEM2423 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: CHEM1412 within the last five years with a grade of "C" or better. 4 credit hours. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **CHEM2425 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: CHEM2423 within the last 5 years with a grade of "C" or better. 4 credit hours. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **CHIN1411 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. (A)

### **CHIN1412 Beginning Chinese II**

Continuation of CHIN1411. Prerequisite: CHIN1411 or consent of Instructor or Department Chair. 4 credit hours. (A)

### **CHIN2311 Intermediate Chinese I**

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. Prerequisite: CHIN1412 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **CHIN2312 Intermediate Chinese II**

Continuation of CHIN2311, emphasizing conversation and reading skills. Prerequisite: CHIN2311 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **CNBT2317 Green Building**

Methods and materials used for building that conserve energy, water, and human resources. Lab required.

Prerequisites: DFTG1309, INDS1371, and INDS1373. 3 credit hours. (W)

### **COMM1307 Introduction to Mass Communication**

A study of mass media in the United States with emphasis on newspapers, magazines, radio, film, publishing, the internet and television; history of mass media and the business models that support them; and the role and responsibility of mass media in modern society. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **COMM1316 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: ARTS2356. 3 credit hours. (A)

### **COMM1317 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: COMM1316. 3 credit hours. (A)

### **COMM1335 Survey of Radio and 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, COMM1335 covers critical perspectives in radio and television, production values and aesthetics, and the impact of change in the broadcast marketplace. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **COMM2300 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **COMM2301 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **COMM2330 Introduction to Public Relations**

Exploration of the history and development of public relations and current trends in the profession. Presentation of theories behind and processes of public relations including planning, implementation and evaluation. Overview of how the process is carried out in different public relations specializations. The student is recommended to complete COMM1307 or SPCH1311 prior to registering for this course, but not required. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **COMM2331 Radio and TV Announcing**

Principles of, and practice in, radio and TV announcing, including the study of voice (diction, pronunciation, and delivery) as it relates to mediated contexts and experience in news announcing, interviewing, and acting in commercials. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **COMM2332 Radio/Television News**

The preparation and analysis of news styles for the electronic media. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **COMM2339 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **COMM2366 Introduction to Film**

Emphasis on the analysis of the visual and aural aspects of selected motion pictures, dramatic aspects of narrative films, and historical growth and

sociological effect of film as an art. The course will include a basic introduction to narrative and experimental forms of video production. Students will study the theoretical approaches and contemporary artistic movements and trends as well as develop a personal aesthetic through theory and practice. Lab required. Prerequisite: PHTC1311 or consent of Instructor. 3 credit hours. (A)

### **COMM2389 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.

Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **COSC1301 Computers and Technology**

*Formerly COSC1300*

Overview of computer systems – hardware, operating systems, and microcomputer application software, including the Internet, word processing, spreadsheets, presentation graphics, and databases. Current issues such as the effect of computers on society, and the history and use of computers in business, educational, and other modern settings are also studied. This course is not intended to count toward a student's major field of study in business or computer science. Assessment: Placement in College-Level Reading. 3 credit hours. (A)

### **COSC1315 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. 3 credit hours. (A)

### **COSC1337 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. Prerequisite: BCIS1320 or COSC1315 or GISC1311

OSC1436 or consent of Department Chair. 3 credit hours. (A)

Note: Students may take either COSC1337 or COSC1437 but not both.

### **COSC1436 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.

Assessment: Placement in MATH1332. 4 credit hours. (A)

### **COSC1437 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. Prerequisite: COSC1436 or consent of Department Chair. 4 credit hours. (A)

Note: Students may take either COSC1337 or COSC1437 but not both.

### **COSC2325 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. Prerequisite: COSC1436 or consent of Department Chair. 3 credit hours. (A)

### **COSC2336 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. Prerequisite: COSC1437 or consent of Department Chair. 3 credit hours. (A)

Note: Students may take either COSC2336 or COSC2436 but not both.

### **COSC2436 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. Prerequisite: COSC1337 or consent of Department Chair. 4 credit hours. (A)  
Note: Students may take either COSC2336 or COSC2436 but not both.

### **COSU0300 College Success**

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. (N)

Note: May not be used to satisfy the requirements of an associate degree.

### **COSU0301 Test-Taking and Study Skills for Non-Native English Speakers**

This class will prepare non-native English speaking students for success by providing instruction and practice in test-taking techniques as well as exposing them to the expectations and realities of college academic coursework. Topics that will be covered include information processing, memory, strategic learning, self-regulation, goal setting, motivation, educational planning, and learning styles. Techniques of study such as organization, time-management, listening/speaking/reading/writing in a lecture or classroom setting, note-taking, research skills, and test preparation will be covered. This course will be particularly beneficial to students who are required to complete the TOEFL or the IELTS prior to admission to college or university. Prerequisites: ESLC0310, ESLR0310 and ESLW0310, or consent of ESL Testing Coordinator or ESL Department Chair. 3 credit hours. (N)

Note: May not be used to satisfy the requirements of an associate degree.

### **CPMT1405 IT Essentials I: PC Hardware and Software**

Provides comprehensive overview of computer hardware and software and an introduction to advanced concepts. Lab required. 4 credit hours. (W)

### **CPMT2302 Digital Home Technology Integration**

Integration and maintenance of various digital home technology subsystems. Includes digital home automation, digital security and surveillance, digital home networks, digital video and audio networks, and structured wiring. Lab required. 3 credit hours. (W)

### **CPMT2371 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: CPMT2302 or consent of Instructor or Program Director. 3 credit hours. (W)

### **CRIJ1301 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. (A)

### **CRIJ1306 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. (A)

### **CRIJ1307 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. (A)

### **CRIJ1310 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. (A)

### **CRIJ1313 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. (A)

**CRIJ2301 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. (A)

**CRIJ2313 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. (A)

**CRIJ2314 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. (A)

**CRIJ2323 Legal Aspects of Law Enforcement**

Police authority; responsibilities; constitutional restraints; laws of arrest, search, and seizure; and police liability. 3 credit hours. (A)

**CRIJ2328 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. (A)

**DANC1101 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. (A)

**DANC1110 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. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

**DANC1111 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. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

**DANC1141 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. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

**DANC1142 Ballet Technique II**

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 to 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. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC1145 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 energy 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. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC1146 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. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC1147 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. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC1148 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. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC1151 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. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC1152 Dance Performance II**

Continuation of DANC 1151. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148,



DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

### **DANC1201 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: DANC1101. 2 credit hours.(A)

Note: Does not satisfy the PHED/DANC activity core requirement.

### **DANC1212 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. (A)

Note: Students may take DANC1212, DANC1213, DANC2210, DANC2211, DANC2212, and DANC2213 for a combined total of no more than 8 credit hours.

Note: Does not satisfy the PHED/DANC activity core requirement.

### **DANC1213 Dance Practicum II**

Continuation of DANC1212. Practicum in dance with emphasis on choreography. Prerequisites: DANC1212 and consent of Instructor. 2 credit hours. (A)

Note: Students may take DANC1212, DANC1213, DANC2210, DANC2211, DANC2212, and DANC2213 for a combined total of no more than 8 credit hours.

Note: Does not satisfy the PHED/DANC activity core requirement.

### **DANC1222 Hip Hop I**

Hip Hop I is a course designed to experience the aesthetics of hip hop culture and to develop an understanding of dance/movement as a communicative and multicultural art form within the subculture of hip hop communities. The primary focus of this course is to engage in hip hop not only as a mode of entertainment, but as a medium of communication which represents and impacts the life experiences of youth in America and globally. Lab required. 2 credit hours. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142,

DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

### **DANC1223 Hip Hop II**

Hip Hop II is a continuation of hip hop I. Further exploration of movement material as it relates to the historical, socio-economic and musical/aesthetic contexts from which hip hop dance emerged. Lab required. Prerequisite: DANC2222. 2 credit hours. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

### **DANC2141 Ballet Technique III**

Intermediate/advanced ballet; a continuation of DANC1142 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. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

### **DANC2142 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: DANC2141 or consent of Instructor. 1 credit hour. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC2145 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: DANC1146 or consent of Instructor. 1 credit hour.(A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC2146 Modern Dance Technique IV**

Advanced modern dance; continuation of DANC2145, 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: DANC2145 or consent of Instructor. 1 credit hour. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC2147 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: DANC1148 or consent of Instructor. 1 credit hour. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC2148 Jazz Dance Technique IV**

Advanced jazz dance, continuation of DANC2147 with emphasis on complex rhythmic structures and advanced jazz technique. Includes 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: DANC2147 or consent of Instructor. 1 credit hour. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC2151 Dance Performance III**

Continuation of DANC1152. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

#### **DANC2152 Dance Performance IV**

Continuation of DANC 2151. Prerequisite: Audition. 1 credit hour.(A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148,

DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

### **DANC2210 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. (A)

Note 1: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

Note 2: This course does not satisfy the PHED/DANC activity core requirement.

### **DANC2211 Projects in Dance Performance and Repertory II**

A continuation of DANC2210. 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: DANC2210 or consent of Dance Chair, and Dance Audition required. 2 credit hours. (A)

Note 1: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

Note 2: Does not satisfy the PHED/DANC activity core requirement.

### **DANC2212 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: DANC1213 and consent of Instructor. 2 credit hours. (A)

Note 1: Students may take DANC1212, DANC1213, DANC2210, DANC2211, DANC2212, and

DANC2213 for a combined total of no more than 8 credit hours.

Note 2: Does not satisfy the PHED/DANC activity core requirement.

### **DANC2213 Dance Practicum IV**

Continuation of DANC 2212. Prerequisites: DANC2212 and consent of Instructor. 2 credit hours.(A)

Note 1: Students may take DANC1212, DANC1213, DANC2210, DANC2211, DANC2212, and DANC2213 for a combined total of no more than 8 credit hours.

Note 2: Does not satisfy the PHED/DANC activity core requirement.

### **DANC2301 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.(A)

Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

### **DANC2303 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. Assessment: Placement in at least READ0310. 3 credit hours. (A)

Note: Does not satisfy the PHED/DANC activity core requirement.

### **DANC2325 Pilates/Anatomy for Dancers**

The purpose of this course is to increase strength, flexibility, range of motion, coordination and ease of movement through the Pilates method. The course will emphasize the application of anatomical and kinesiological principles through a conditioning program for the enhancement of the student's dance or other athletic performance. Classes will introduce beginning through intermediate level exercises in the Pilates mat-work. The course emphasizes the use of proper alignment and technique to understand the efficiency of motion, not only as a means of technique

but also a means of all motion for daily life activities. Lab required. 3 credit hours. (A)  
Note: Students may take DANC1110, DANC1111, DANC1141, DANC1142, DANC1145, DANC1146, DANC1147, DANC1148, DANC1151, DANC1152, DANC1222, DANC1223, DANC2141, DANC2142, DANC2145, DANC2146, DANC2147, DANC2148, DANC2151, DANC2152, DANC2301, and DANC2325 for a combined total of no more than 18 credit hours.

### **DANC2389 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.(A)

### **DFTG1305 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. Lab required. 3 credit hours. (W)

### **DFTG1309 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)

### **DFTG1317 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. 3 credit hours. (W)

### **DFTG1333 Mechanical Drafting**

Study of mechanical drawings using dimensioning and tolerances, sectioning techniques, orthographic projection, and pictorial drawings. Lab required. Prerequisite: DFTG1309. 3 credit hours. (W)

### **DFTG1345 Parametric Modeling and Design**

Parametric-based design software for 3D design and drafting. Lab required. Prerequisite: DFTG2319. 3 credit hours. (W)

### **DFTG1358 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)

### **DFTG1371 Mechanical Drafting-Fundamentals of Sheetmetal Design**

The Fundamentals of Sheetmetal Design course teaches the skills required in designing sheetmetal parts and assemblies, trouble shooting 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: DFTG1333. 3 credit hours. (W)

### **DFTG1380 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)

### **DFTG2300 Intermediate Architectural Drafting Residential**

Continued application of principles and practices used in residential construction. Lab required. Prerequisite: DFTG1317. 3 credit hours. (W)

### **DFTG2312 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)

### **DFTG2319 Intermediate Computer-Aided Drafting**

A continuation of practices and techniques used in basic computer-aided drafting including the development and use of prototype drawings, construction of pictorial drawings, extracting data and basics of 3D. Lab required. Prerequisite: DFTG1309. 3 credit hours. (W)

### **DFTG2321 Topographical Drafting**

Plotting of surveyors field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses. Lab required. Prerequisite: DFTG1309. 3 credit hours. (W)

**DFTG2328 Architectural Drafting-Commercial**

Architectural drafting procedures, practices, governing codes, terms and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Lab required. Prerequisites: DFTG1305 and DFTG2319. 3 credit hours. (W)

**DFTG2332 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)

**DFTG2335 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)

**DFTG2336 Computer-Aided Drafting Programming**

Use of programming language to enhance CAD software. Lab required. Prerequisite: DFTG 2319. 3 credit hours. (W)

**DFTG2350 Geometric Dimensioning and Tolerancing**

Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings. Lab required. Prerequisite: DFTG1309. 3 credit hours. (W)

**DFTG2381 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)

**DHYG1123 Dental Hygiene Practice**

Emphasis on the laws governing the practice of dentistry and dental hygiene, moral standards, and the ethical standards established by the dental hygiene profession. Practice settings for the dental hygienist, office operations, and preparation for employment. Prerequisites: DHYG1227 and DHYG1261. Major Requirement: AAS - Dental Hygiene. 1 credit hour. (W)

**DHYG1207 General and Dental Nutrition**

General nutrition and nutritional biochemistry with emphasis on the effects of nutrition, dental health, diet, and application of counseling strategies. Prerequisite: DHYG1331. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

**DHYG1215 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: DHYG1227, DHYG1261, and ENGL1301. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

**DHYG1227 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 utilized to facilitate the role of the dental hygienist as an educator. Prerequisites: BIOL2421, DHYG1301, and DHYG1331. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

**DHYG1235 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: DHYG1331. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

**DHYG1261 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: BIOL2421, DHYG1301, and DHYG1331. Major

Requirement: AAS-Dental Hygiene. 2 credit hours.  
(W)

**DHYG1301 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: BIOL2401 and BIOL2402, and CHEM1405 or CHEM1411. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

**DHYG1304 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: DHYG1301, or consent of Program Director. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

**DHYG1311 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: DHYG1227 and DHYG1261. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

**DHYG1319 Dental Materials**

Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry. Lab required. Prerequisites: CHEM1405 or CHEM1411, and DHYG311. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

**DHYG1331 Preclinical Dental Hygiene**

Foundational knowledge for performing clinical skills on patients with emphasis on procedures, and rationale for performing dental hygiene care. Clinical laboratory included (6 hours/week). Prerequisites: BIOL2401, and BIOL2402, and CHEM1405 or CHEM1411. Major Requirement: AAS-Dental Hygiene. 3 credit hours. (W)

**DHYG1339 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: DHYG1227 and DHYG1261. Major

Requirement: AAS-Dental Hygiene. 3 credit hours.  
(W)

**DHYG2201 Contemporary Dental Hygiene Care I**

Dental hygiene care for the medically or dentally compromised patient including supplemental instrumentation techniques. Prerequisites: DHYG1227 and DHYG1261. Corequisites: DHYG1123 and DHYG2361, or consent of Program Director. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

**DHYG2231 Contemporary Dental Hygiene Care II**

A continuation of Contemporary Dental Hygiene Care I. Dental hygiene care for the medically or dentally compromised patient including advanced instrumentation techniques. Prerequisites: DHYG2201 and DHYG2361. Major Requirement: AAS -Dental Hygiene. 2 credit hours. (W)

**DHYG2275 Community Dental Health Applications**

This course provides an opportunity for students to apply the main concepts of DHYG1215 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: DHYG1215, DHYG1227, and DHYG1261. Major Requirement: AAS-Dental Hygiene. 2 credit hours. (W)

**DHYG2361 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. Prerequisites: DHYG1227 and DHYG1261. Corequisites: DHYG1123 and DHYG2201, or consent of Program Director. Major Requirement: AAS-Dental Hygiene. 3 credit hours. (W)

**DHYG2363 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: DHYG1123, DHYG2201, and DHYG2361.

Corequisite: DHYG2231. Major Requirement: AAS-Dental Hygiene. 3 credit hours. (W)

**DHYG2375 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: DHYG1235, DHYG2201, and DHYG2361. Major Requirement: AAS-Dental Hygiene. 3 credit hours. (W)

**DRAM1120 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. (A)

Note: Students may take DRAM1120 and DRAM1121 for a combined total of no more than 6 credits hours.

**DRAM1121 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. (A)

Note: Students may take DRAM1120 and DRAM1121 for a combined total of no more than 6 credits hours.

**DRAM1161 Musical Theatre Workshop I**

Study and performance of works in the musical theatre repertoire. 1 credit hour. (A)

**DRAM1162 Musical Theatre Workshop II**

A continuation of Music Theatre Workshop I. Developing advanced techniques in presenting works from the Musical Theatre repertoire. 1 credit hour. (A)

**DRAM1310 Introduction to the Theatre**

Various aspects of world theatre are surveyed. Emphasis on types of plays, directing, acting, theatre history, and technical production. Assessment: Placement in at least READ0310. 3 credit hours. (A)

**DRAM1322 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. This course will examine techniques of stage movement, to include mask and mime work, yoga, dance, the Alexander technique, Laban and LeCoq movement techniques. Lab required. 3 credit hours. (A)

**DRAM1323 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. (A)

**DRAM1330 Stagecraft I**

The study and application of the visual aesthetics of stagecraft; which may include the physical theatre, scenery construction and painting, properties, and lighting. Lab required. 3 credit hours. (A)

**DRAM1341 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. (A)

**DRAM1342 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. (A)

**DRAM1351 Acting I**

Introduction to the art of acting including body control, voice, pantomime, interpretation, characterization, and stage movement. Lab required. 3 credit hours. (A)

**DRAM1352 Acting II**

Advanced acting, with emphasis on script analysis, complex characterization, ensemble acting and stylized acting in period plays. Lab required.

Prerequisite: DRAM1351 or consent of Instructor. 3 credit hours. (A)

**DRAM1370 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. (A)

Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

**DRAM2170 Demonstration Lab**

Scenes, techniques and problems studied in various theatre classes are demonstrated to show contrast and different styles. Guest lectures, demonstrations 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. (A)

Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

**DRAM2331 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. (A)

**DRAM2336 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. (A)

**DRAM2351 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. (A)

**DRAM2352 Acting IV: Acting for Film and Television**

Intensive examination of skills and techniques necessary for successful performances in film and

television. Lab required. Prerequisite: Consent of Instructor. 3 credit hours. (A)

**DRAM2361 History of the Theatre I**

An historical investigation of the world theatre and dramatic literature from ancient Greece through 1800. Assessment: Placement in at least READ0310. 3 credit hours. (A)

Note: Students may take DRAM2361, DRAM2362 and DRAM2363 for a combined total of no more than 6 credit hours.

**DRAM2362 History of the Theatre II**

An historical investigation of the world theatre and dramatic literature from 1800 to the present. Assessment: Placement in at least READ0310. 3 credit hours. (A)

Note: Students may take DRAM2361, DRAM2362 and DRAM2363 for a combined total of no more than 6 credit hours.

**DRAM2363 History of Musical Theatre**

A study of the forms and structures of the American musical theatre from its earliest forms through the present day. This uniquely American theatre form is traced from The Black Crook and early operetta through the turn-of-the-century poets of Tin Pan Alley to the current scene on Broadway. Representative musical scores and books are reviewed. 3 credit hours. (A)

Note: Students may take DRAM2361, DRAM2362 and DRAM2363 for a combined total of no more than 6 credit hours.

**DRAM2366 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. (A)

**DRAM2367 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. (A)

**DRAM2370 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. (A)



Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

### **DRAM2372 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. Script selections will vary each semester. Lab required. 3 credit hours. (A)

Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

### **DRAM2373 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: DRAM1342 or consent of Instructor. 3 credit hours. (A)

Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

### **DRAM2375 Fundamentals of Stage Lighting**

An introductory course that explores the use of light as an artistic medium in theatrical productions. This course acquaints the 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. (A)

Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

### **DRAM2376 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 also includes an instructional component, where the student will teach and/or direct staged fight scenes. Lab required. Prerequisite: Consent of Instructor. 3 credit hours. (A)

Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

### **DRAM2377 Acting Shakespeare**

Students will explore the unique demand of performing Shakespeare's plays; discovering how to make language a physical experience for both actor and audience. Using exercises, improvisations and Shakespeare's texts, students will discover the meaning, music and power of his words and how to create living characters that will engage the audience in a dynamic theatrical experience. Lab required. 3 credit hours. (A)

Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

### **DRAM2389 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. (A)

### **DSAE1340 Diagnostic Electrocardiography**

Cardiac testing including the techniques and interpretation of patient physical assessment. Covers electrocardiography, stress testing, Holter monitoring, vital signs, and cardiovascular pharmacology. Lab required. Prerequisite: Current Healthcare Provider Cardiopulmonary Resuscitation (CPR) Certification from American Heart Association (AHA). 3 credit hours. (W)

### **ECON1301 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. (A)

### **ECON2301 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. (A)

### **ECON2302 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. (A)

**ECON2389 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. (A)

**ECRD1111 Electrocardiography**

Fundamentals of cardiovascular anatomy and physiology. Includes basic electrocardiography procedures, interpretation of basic dysrhythmias, and appropriate treatment modalities. Lab required. Prerequisite: Current Healthcare Provider Cardiopulmonary Resuscitation (CPR) Certification from American Heart Association (AHA). Prerequisite/Concurrent enrollment: DSAE1340. 1 credit hour. (W)

**EDUC1301 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. Assessment: Placement in ENGL0315; READ0310. 3 credit hours. (A)

**EDUC2301 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. Assessment: Placement in ENGL0315; READ0310. 3 credit hours. (A)

**EECT1371 Voice-over-Internet Protocol (CCNA VOICE)**

Voice over Internet Protocol (VoIP) adds voice to existing data and video transmission networks, enriching and unifying all our communication systems over a common media. It offers many benefits: lower telephony operational costs, greater flexibility, and the potential for a variety of present and future enhanced applications not possible on earlier communications systems. This course provides a thorough overview of the legacy Public Switched Telephone Network (PSTN), Internet Protocol (IP), and IP Telephony (IPT), including their protocols and integration with data and video

networks. VoIP I helps individuals to prepare for the Cisco CCNA Voice and CVOICE certification. This class requires extensive hands-on labs. Lab required. Prerequisite: EECT1407 or consent of Program Director. 3 credit hours. (W)

**EECT1380 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)

**EECT1381 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)

**EECT1407 Convergent Technologies-Convergence +**

A study of telecommunications convergent 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)

**EECT1448 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)

**EECT2337 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. 3 credit hours. (W)

### **EECT2373 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: INTW2350 or consent of Instructor or Program Director. 3 credit hours. (W)

### **EECT2374 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: EECT2437 or consent of Instructor or Program Director. 3 credit hours. (W)

### **EECT2375 Advanced VoIP (Cisco Internet Protocol Telephony - CIPT)**

EECT1371, VoIP, capitalized on hands-on small to medium office VoIP technology. This course will provide students with hands-on enterprise VoIP technology experience. The course will concentrate on planning, designing, and installing a Unified Communications application on enterprise servers, configuring switches, gateways, gatekeepers, and configuring IP phones to support enterprise VoIP networks. Attention will be given to basic understanding of Quality of Service (QoS), security, and troubleshooting. This course helps individuals to prepare for the Cisco CIPT certification. Lab required. Prerequisite: EECT1371 or consent of Program Director. 3 credit hours. (W)

### **EECT2435 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: EECT2439 or consent of Program Director. 4 credit hours. (W)

### **EECT2437 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)

### **ELMT1405 Basic Fluid Power**

Basic fluid power course covering pneumatic and hydraulic systems, fluid power symbols, operating theory, components, and basic electrical and manual controls. Lab required. 4 credit hours. (W)

### **ELMT2435 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)

### **ELMT2437 Electronic Troubleshooting, Service and Repair**

In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedures, repair checkout, and preventative maintenance. Emphasis on safety and use of test equipment. May be offered as a capstone course. Lab required. 4 credit hours. (W)

### **EMSP1160 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)

### **EMSP1161 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)

### **EMSP1162 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)

**EMSP1338 Introduction to Advanced Practice**

An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Lab required. Prerequisite: MDCA1409 or consent of Program Director. 3 credit hours. (W)

**EMSP1355 Trauma Management**

A detailed study of the knowledge and skills in the assessment and management of patients with traumatic injuries. Lab required. 3 credit hours. (W)

**EMSP1356 Patient Assessment and Airway Management**

A detailed study of the knowledge and skills required to perform patient assessment and airway management. Lab required. Prerequisite: Consent of Program Director. 3 credit hours. (W)

**EMSP1501 Emergency Medical Technician-Basic**

Preparation for certification as an Emergency Medical Technician (EMT) - Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an emergency service or other specialized services. Lab required. Prerequisite: Consent of Program Director. Corequisite: EMSP1160. 5 credit hours. (W)

**EMSP2143 Assessment Based Management**

A capstone course covering comprehensive, assessment-based patient care management. Includes specific care when dealing with pediatric, adult, geriatric, and special needs patients. 1 credit hour. (W)

**EMSP2260 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)

**EMSP2330 Special Populations**

A detailed study of the knowledge and skills necessary to assess and manage ill or injured patients in diverse populations. Lab required. Prerequisite: Consent of Program Director. 3 credit hours. (W)

**EMSP2338 EMS Operations**

A detailed study of the knowledge and skills to safely manage the scene of an emergency. Lab required. Prerequisites: EMSP1161, EMSP1338, EMSP1355, EMSP1356, EMSP2434, and EMSP2444. 3 credit hours. (W)

**EMSP2434 Medical Emergencies**

A detailed study of the knowledge and skills in the assessment and management of patients with medical emergencies. Lab required. 4 credit hours. (W)

**EMSP2444 Cardiology**

Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation. Lab required. 4 credit hours. (W)

**EMSP2463 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)

**ENGL0300 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 required. Assessment: Placement in ENGL0300. 3 credit hours. (D) 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. ENGL0300, ENGL0305, and ENGL0315 and GRAM0300 may be taken for a combined total of no more than 9 credit hours.

**ENGL0305 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 required. Assessment: Placement in ENGL0305. Prerequisite: ENGL0300. 3 credit hours. (D) 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. ENGL0300, ENGL0305, and ENGL0315 and GRAM0300 may be taken for a combined total of no more than 9 credit hours.

**ENGL0310 Developmental Grammar I**

This is a skills improvement course recommended for students who do not place into ENGL0300 or higher. It is 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. (D)

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. ENGL0300, ENGL0305, ENGL0310, and ENGL0315 may be taken for a combined total of no more than 9 credit hours.

**ENGL0315 Writing, Reading, and Reasoning**

A skills improvement course designed to help students reach competencies necessary for ENGL1301. 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 required. Assessment: Placement in ENGL0315. Prerequisite: ENGL0305. 3 credit hours. (D)

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. ENGL0300, ENGL0305, and ENGL0315, and GRAM0300 may be taken for a combined total of no more than 9 credit hours.

**ENGL1301 Composition/Rhetoric I**

Expository writing, development of paragraphs and the whole composition, study of model essays, extensive theme writing, and individual conferences. Assessment required prior to enrollment. Lab required. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**ENGL1302 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: ENGL1301. 3 credit hours. (A)

**ENGL2307 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: ENGL1302. 3 credit hours. (A)

**ENGL2308 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: ENGL1302. 3 credit hours. (A)

**ENGL2311 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: ENGL1301. 3 credit hours. (A)

**ENGL2322 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: ENGL1302 or ENGL2311. 3 credit hours. (A)

**ENGL2323 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: ENGL1302 or ENGL2311. 3 credit hours. (A)

**ENGL2327 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: ENGL1302 or ENGL2311. 3 credit hours. (A)

**ENGL2328 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: ENGL1302 or ENGL2311. 3 credit hours. (A)

**ENGL2332 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: ENGL1302 or ENGL2311. 3 credit hours. (A)

**ENGL2333 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: ENGL1302 or ENGL2311. 3 credit hours. (A)

**ENGL2342 Introduction to Literature I - Short Story and Novel**

Study of short stories, novels, and nonfiction. Analysis and evaluation of major writers, their techniques, and their contributions to our literary heritage. Prerequisite: ENGL1302 or ENGL2311. 3 credit hours. (A)

**ENGL2343 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: ENGL1302 or ENGL2311. 3 credit hours. (A)

**ENGL2351 Mexican-American Literature**

A survey of Mexican-American/Chicano/a literature including fiction, nonfiction, poetry and drama. Prerequisite: ENGL1302 or ENGL2311. 3 credit hours. (A)

**ENGL2389 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**ENGR1172 Introduction to Experimental Techniques**

Electrical Engineering fundamentals laboratory that stresses laboratory procedures; learning use of common laboratory equipment such as power supplies, multimeters, signal generators, and oscilloscopes; making measurements; familiarization with simple DC resistor circuits; Ohm's law; analyzing AC signals, including frequency, period, amplitude, and rms value; inductors, capacitors and DC transients; measuring phase shift in an AC circuit

due to an inductor or capacitor; and basics of laboratory report writing. Prerequisite: MATH 2312 or equivalent. 1 credit hour. (A)

**ENGR1201 Introduction to Engineering**

An introduction to the engineering profession with emphasis on technical communication and team-based engineering design. Prerequisite: MATH1314 or equivalent academic preparation. 2 credit hours. (A)

**ENGR1304 Engineering Graphics**

Introduction to computer-aided drafting using CAD software and sketching to generate two- and three-dimensional drawings based on the conventions of engineering graphical communication; topics include spatial relationships, multi-view projections and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics. Lab required. Prerequisite: MATH1314 or equivalent academic preparation and DFTG1309 or consent of Instructor or Program Director. 3 credit hours. (A)

**ENGR2110 Introduction to Digital Systems Laboratory**

Laboratory to accompany ENGR2310. The purpose of this laboratory is to give students an intuitive understanding of digital circuits and systems. Laboratory exercises include construction of simple digital logic circuits using prototyping kits and board-level assembly of a personal computer. prerequisites: COSC1436 and MATH2413 or MATH2417. Corequisite: ENGR 2310. 1 credit hour. (A)

**ENGR2300 Applied Linear Algebra**

Matrices, vectors, determinants, linear systems of equations, Gauss-Jordan elimination, vector spaces, basis, eigenvalues, eigenvectors, numerical methods in linear algebra using MATLAB, computer arithmetic, Gaussian elimination, LU factorization, iterative solutions to linear systems, iterative methods for estimating eigenvalues, singular value decomposition, QR factorization. Prerequisite: MATH 2415 or MATH 2419. 3 credit hours. (A)

**ENGR2301 Engineering Mechanics I**

Basic theory of engineering mechanics, using calculus, involving the description of forces, moments, and couples acting on stationary engineering structures; equilibrium in two and three dimensions; free-body diagrams; friction; centroids; centers of gravity; and moments of inertia. Prerequisite: MATH 2413. 3 credit hours. (A)

**ENGR2302 Engineering Mechanics II**

Basic theory of engineering mechanics, using calculus, involving the motion of particles, rigid bodies, and systems of particles; Newton's Laws;

work and energy relationships; principles of impulse and momentum; application of kinetics and kinematics to the solution of engineering problems. Prerequisite: ENGR2301. 3 credit hours. (A)

### **ENGR2305 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 law, 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: MATH2413, MATH2414, and MATH2415. Prerequisite/Concurrent enrollment: MATH2320 or consent of Program Director. 3 credit hours. (A)

### **ENGR2310 Introduction to Digital Systems**

Introduction to hardware structures and assembly-language concepts that form the basis of the design of modern computer systems. Internal data representation and arithmetic operations in a computer. Basic logic circuits. MIPS assembly language. Overview of PC architecture. Prerequisites: COSC1436 and MATH2413 or MATH2417. Corequisite: ENGR2110. 3 credit hours. (A)

### **ENGR2332 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: ENGR2301. 3 credit hours. (A)

### **ENGT1401 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: MATH2312. 4 credit hours. (A)

### **ENGT1402 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: ENGT1401. Prerequisite/Concurrent enrollment: MATH2413. 4 credit hours. (A)

### **ENGT1407 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. (A)

### **ENTC1323 Strength of Materials**

Introduces the relationship between externally applied forces and internally induced stresses and the resulting deformations in structural members. Lab required. 3 credit hours. (W)

### **ENTC1380 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)

### **ENTC2380 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: ENTC1380. 3 credit hours. (W)

### **ENVR1401 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. Assessment: Placement in ENGL1301; MATH0310; College-Level Reading. 4 credit hours. (A)

**ENVR1402 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. (A)

**ESLC0305 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 non-native 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. Lab required. Assessment: Placement in ESLC 0305. 3 credit hours. (N)

**ESLC0310 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. Lab required. Assessment: Placement in ESLC 0310. Prerequisite: ESLC 0305. 3 credit hours. (N)

**ESLC0320 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. Lab required. Assessment: Placement in ESLC 0305 and ESLR 0305.

Prerequisite: ESLC 0305 or consent of Instructor. 3 credit hours. (N)

**ESLG0305 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. Lab required. Assessment: Placement in ESLG 0305. 3 credit hours. (N)

**ESLG0310 ESL Grammar: Intermediate II**

A high-intermediate English grammar course designed for non-native speakers of English for instruction in conditionals, gerunds, infinitives, and prepositions. Course content supports ESLW0310 objectives for grammar usage. Lab required. Assessment: Placement in ESLG0310. Prerequisite: ESLG0305. 3 credit hours. (N)

**ESLG0315 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 ENGL1301. Lab required. Assessment: Placement in ESLG0315. Prerequisite: ESLG0310. Prerequisite/Concurrent enrollment: ESLW0315. 3 credit hours. (N)

**ESLR0305 ESL Reading: Intermediate I**

Instruction in intermediate reading comprehension for non-native 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. Lab required. Assessment: Placement in ESLR0305. 3 credit hours. (N)

Note: ESLR0305, ESLR0310, ESLR0315, and ESLV0305 may be taken for a combined total of no more than 9 credit hours.

**ESLR0310 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. Lab required. Assessment: Placement in ESLR0310. Prerequisite: ESLR0305. 3 credit hours. (N)



Note: ESLR0305, ESLR0310, ESLR0315, and ESLV0305 may be taken for a combined total of no more than 9 credit hours.

**ESLR0315 ESL Reading: Advanced**

Instruction in advanced reading comprehension to prepare non-native 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, authors' purpose, tone, point of view, vocabulary, and graphic aids in unabridged academic texts. Assessment: Placement in ESLR 0315.

Prerequisite: ESLR0310. 3 credit hours. (N)

Note: ESLR0305, ESLR0310, ESLR0315, and ESLV0305 may be taken for a combined total of no more than 9 credit hours.

**ESLV0305 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. Lab required. Prerequisites: ESLC0305 and ESLR0305, or consent of Instructor or Department Chair. 3 credit hours. (N)

Note: ESLR0305, ESLR0310, ESLR0315, and ESLV0305 may be taken for a combined total of no more than 9 credit hours.

**ESLW0305 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. Lab required. Assessment: Placement in ESLW 0305. 3 credit hours. (N)

**ESLW0310 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. Lab required. Assessment: Placement in ESLW 0310. Prerequisites: ESLG 0305 and ESLW 0305. 3 credit hours. (N)

**ESLW0315 ESL Writing: Advanced**

Instruction in advanced essay writing designed to prepare non-native students to enter ENGL1301. 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. Lab required. Assessment: Placement in ESLW0315. Prerequisites: ESLG0310 and ESLW0310. Prerequisite/Concurrent enrollment: ESLG0315. 3 credit hours. (N)

**FIRS1301 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)

**FIRS1313 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)

**FIRS1319 Firefighter Certification IV**

One is a series of courses in basic preparation for a new firefighter. Should be take 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)

**FIRS1323 Firefighter Certification V**

One is a series of courses in basic preparation for a new firefighter. Should be take 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)

**FIRS1329 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. Prerequisite: FIRS 1323. 3 credit hours. (W)

**FIRS1407 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)

**FIRS1433 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: FIRS1329. 4 credit hours. (W)

**FIRT1301 Fundamentals of Fire Protection**

Orientation to the fire service, career opportunities, and related fields. 3 credit hours. (W)

**FIRT1315 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. 3 credit hours. (W)

**FIRT1327 Building Construction in the Fire Service**

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)

**FIRT1338 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. Prerequisite: FIRT1301 or consent of Program Director. 3 credit hours. (W)

**FIRT1342 Fire Officer I**

Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer I certification. Lab required. Prerequisite: FIRS1433 or consent of Program Director. 3 credit hours. (W)

**FIRT1343 Fire Officer II**

Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer II certification. Prerequisites: FIRT1342, and FIRT2305, or consent of Program Director. 3 credit hours. (W)

**FIRT1349 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: FIRT1301 or consent of Program Director. 3 credit hours. (W)

**FIRT2305 Fire Instructor I**

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 curriculum requirements of the Texas Commission of Fire Protection (TCFP) for Fire Instruction I certification. Prerequisite: FIRS1433. 3 credit hours. (W)

**FIRT2307 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 the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Instructor II certification. Prerequisite: FIRT2305 or consent of Program Director. 3 credit hours. (W)

**FIRT2309 Firefighting Strategies and Tactics I**

Analysis of the nature of fire problems and selection of initial strategies and tactics including an in-depth study of efficient and effective use of staffing and equipment to mitigate the emergency. Prerequisite: FIRT1301 or consent of Program Director. 3 credit hours. (W)

**FIRT2351 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 supervisor duties. Lab required. Prerequisites: FIRT1342, FIRT1343, FIRT2305, FIRT2307, and FIRT2309. 3 credit hours. (W)

**FLMC1301 History of Animation Techniques**

A historical perspective of two-dimensional (2-D) and three-dimensional (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)

**FLMC1304 Lighting for Film or Video**

Fundamentals of lighting techniques for film or video production employing filters, in-camera effects, and

mood setting techniques. Lab required. Prerequisite: ARTC1325. 3 credit hours. (W)

### **FLMC1331 Video Graphics and Visual Effects I**

A course in the applications of computers for video production. Design of computer graphic workstations and development of a rationale for selecting software, hardware, and peripherals. Lab required. Prerequisite: ARTC1325. 3 credit hours. (W)

### **FLMC2305 Film-Style 3-D Animation Production**

Techniques in 3-D animation for film-style production. Lab required. Prerequisite: ARTV2351 or consent of Instructor. 3 credit hours. (W)

### **FLMC2331 Video Graphics and Visual Effects II**

Advanced concepts of 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. Prerequisite/Concurrent enrollment: ARTV2355. 3 credit hours. (W)

### **FREN1100 French Conversation I**

Intensive practice in spoken French. Prerequisite: FREN1412 or consent of Instructor or Department Chair. Corequisite: FREN2311. 1 credit hour. (A)

### **FREN1110 French Conversation II**

Continuation of FREN1100. Prerequisite: FREN1100 or consent of Instructor or Department Chair. Corequisite: FREN2312. 1 credit hour. (A)

### **FREN1411 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. (A)

### **FREN1412 Beginning French II**

Continuation of FREN 1411. Prerequisite: FREN1411 or consent of Instructor or Department Chair. 4 credit hours. (A)

### **FREN2303 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: FREN2312 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **FREN2304 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: FREN2312 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **FREN2311 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: FREN1412 or consent of Instructor or Department Chair. Corequisite: FREN1100. 3 credit hours. (A)

### **FREN2312 Intermediate French II**

Continuation of FREN2311. Prerequisite: FREN2311 or consent of Instructor or Department Chair. Corequisite: FREN1110. 3 credit hours. (A)

### **GAME1303 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 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **GAME1304 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: GAME1303. 3 credit hours. (W)

### **GAME2342 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: COSC1437 or consent of Department Chair. 3 credit hours. (W)

### **GAME2344 DirectX Programming Using C++**

Exploration of the advanced suite of multimedia application programming interfaces (API) built into the Microsoft Windows operating system. Examples will be in the C++ programming language. Lab required. Prerequisite: COSC1437. 3 credit hours. (W)

**GAME2359 Game and Simulation Group Project**

Creation of a game and/or simulation project utilizing a team approach. Includes the integration of design, art, audio, programming, and quality assurance. Lab required. Prerequisite: GAME1304. 3 credit hours. (W)

**GAME2386 Internship-Animation, Interactive Technology, Video Graphics and Special Effects**

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. Prerequisite: ARTV1341. 3 credit hours. (W)

**GEOG1301 Physical Geography**

Exploration of the physical environment; emphasis on climates, land forms, vegetation, and spatial relationships of selected geographical regions of the world. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**GEOG1302 Cultural Geography**

Examination of the cultural and economic environment; emphasis on origins, diffusion, and distribution of races, religions, and languages. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**GEOG1303 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**GEOL1305 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. Assessment: Placement in ENGL1301; MATH0310; College-Level Reading. 3 credit hours. (A)  
Note: Students may take either GEOL1305 or GEOL1405 but not both.

**GEOL1401 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. Assessment: Placement in ENGL1301; MATH0310; College-Level Reading. 4 credit hours. (A)

**GEOL1402 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. Assessment: Placement in ENGL1301; MATH0310; College-Level Reading. 4 credit hours. (A)

**GEOL1403 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. Assessment: Placement in ENGL1301; MATH0310; College-Level Reading. 4 credit hours. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMS). Contact the Natural Sciences Department for further information.

**GEOL1404 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: GEOL1401 or GEOL1403. 4 credit hours. (A)

**GEOL1405 Environmental Geology**

Study of geologic constraints upon human activities and the environmental consequences of such activities. It includes mass movements, flooding, earthquakes, and volcanic hazards. Emphasis also includes the environmental aspects of the development of water, energy, and mineral resources. Lab required. Prerequisite: ENVR1401 or GEOL1401 or GEOL1403. 4 credit hours. (A)  
Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMS). Contact the Natural Sciences Department for further information. Note: Students may take either GEOL1305 or GEOL1405 but not both.

**GEOL1445 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. Assessment: Placement in ENGL 1301; MATH 0310; College-Level Reading. 4 credit hours. (A)

**GEOL1447 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. Assessment: Placement in ENGL1301; MATH0310; College-Level Reading. 4 credit hours. (A)

**GEOL2389 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. (A)

**GERM1100 Conversational German I**

Intensive practice in spoken German. Prerequisite: GERM1412 or consent of Instructor or Department Chair. Requisite: GERM2311. 1 credit hour. (A)

**GERM1110 Conversational German II**

Continuation of GERM1100. Prerequisite: GERM 1100, or consent of Instructor or Department Chair. Requisite: GERM2312. 1 credit hour. (A)

**GERM1411 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. (A)

**GERM1412 Beginning German II**

Continuation of GERM1411 with an emphasis on the reading of elementary texts. Prerequisite: GERM1411 or consent of Instructor or Department Chair. 4 credit hours. (A)

**GERM2311 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: GERM1412 or consent of Instructor or Department Chair. Corequisite: GERM1100. 3 credit hours. (A)

**GERM2312 Intermediate German II**

Continuation of GERM 2311. Prerequisite: GERM2311, or consent of Instructor or Department Chair. Corequisite: GERM1110. 3 credit hours. (A)

**GISC1311 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. Students will learn how to make maps, carry out spatial analysis, build and edit spatial databases in the context of realistic projects. Lab required. 3 credit hours. (W)

**GISC2231 Advanced Problems in Geographic Information Systems (GIS)**

Seminar/Capstone course designed for the final semester of a degree or certificate in Geographic Information Systems (GIS). Projects will include individual and group studies of GIS applications using the skills acquired in previous courses. The student will produce a professional project and present the results to a panel consisting of peers, instructors, or practicing GIS professionals. Lab required. Prerequisite: GISC2420. 2 credit hours. (W)

**GISC2420 Intermediate Geographic Information Systems (GIS)**

This course focuses on the study of spatial data structures and the display, manipulation, and analysis of geographic information. Students will study the technical aspects involved in spatial data handling, analysis, and modeling. Instruction will include theories and procedures associated with the implementation and management of GIS projects. A variety of GIS software packages will be used in the laboratory. Lab required. Prerequisites: GISC1311 and ITSW1307. 4 credit hours. (W)

**GOVT2301 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

Note: Students transferring a government course from out-of-state must enroll in this course to complete the Texas legislative requirement.

**GOVT2302 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**GOVT2304 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. Assessment: Placement in ENGL 1301; College-Level Reading. Prerequisite: Consent of Instructor. 3 credit hours. (A)

**GOVT2311 Mexican-American Politics**

This course explores the impact of Mexican-Americans on U.S. politics and political institutions and public policy. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**GOVT2389 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. Assessment: Placement in ENGL1301. Prerequisite: Consent of Instructor. 3 credit hours. (A)

**GRAM0300 Developmental Grammar**

A skills improvement course designed to help students strengthen writing. Particular emphasis is given to grammar and punctuation, and this course utilizes lecture, class discussions, tests, and writing exercises to teach individuals to recognize and correct common usage errors within the context of their own writing. This course may be taken concurrently with any English course. Lab required. No prerequisite. Exit writing assessment required. 3 credit hours. (D) 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. ENGL0300, ENGL0305, ENGL0315, and GRAM0300 may be taken for a combined total of no more than 9 credit hours.

**GRPH1359 Vector Graphics for Production**

A study and use of vector graphics for production. 3 credit hours. (W)

**GRPH1380 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)

**HAMG1313 Front Office Procedures**

Functions of front office operations as they relate to customer service. Includes a study of front office interactions with other departments in the lodging operation. 3 credit hours. (W)

**HAMG1319 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)

**HAMG1321 Introduction to Hospitality Industry**

Introduction to the elements of the hospitality industry. 3 credit hours. (W)

**HAMG1324 Hospitality Human Resources Management**

Principles and procedures of human resource management in the hospitality industry. 3 credit hours. (W)

**HAMG1340 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)

**HAMG1380 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)

### **HAMG2301 Principles of Food and Beverage Operations**

An introduction to food and beverage management in various hospitality environments. Emphasizes cost controls from procurement to marketing and sales. Examines forecasting, menu planning and pricing, logistical support, production, purchasing, and quality assurance. 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.

### **HAMG2305 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)

### **HAMG2307 Hospitality Marketing and Sales**

Identification of the core principles of marketing and sales and their impact on the hospitality industry. 3 credit hours. (W)

### **HAMG2332 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)

### **HAMG2337 Hospitality Facilities Management**

Identification of building systems, facilities and sustainability management, and security and safety procedures. 3 credit hours. (W)

### **HAMG2380 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)

### **HART1475 Solar Cell and Array Certification Training**

Review of Solar Cell and Array concepts and principles in preparation for sitting for a certification

examination administered by an outside organization or agency. The course includes National and Local Electrical Code requirements. Lab required.

Prerequisites: CETT1403 and MATH1314, or consent of Program Director. 4 credit hours. (W)

### **HART2472 Alternative Energy Perspectives, Energy Sources, Energy Storage, and Energy Distribution**

The course covers principles of alternative/renewable energy technologies (e.g. Solar Electrical Energy Generation, Solar Thermal Energy Generation, Wind Energy Generation, Geo-Thermal Energy Generation). Each alternative is placed in the proper context of the energy equation. Traditional energy sources (e.g. coal, oil, natural gas, hydropower, nuclear) are described and contrasted so that the student sees costs and benefits of both alternative and traditional energy sources. Energy Storage and Energy Distribution is covered as it pertains to each energy technology. Lab required. Prerequisites: MATH1314 and SMFT1471, or consent of Program Director. 4 credit hours. (W)

### **HIST1301 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 HIST1301, HIST1302, or HIST2301 to fulfill the Texas legislative requirement for history. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **HIST1302 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 HIST1301, HIST1302, or HIST2301 to fulfill the Texas legislative requirement for history. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **HIST2301 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 HIST1301, HIST1302, or HIST2301 to fulfill the Texas legislative requirement for history. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**HIST2311 Western Civilization I**

European civilization from ancient times through the Reformation, including Greece and Rome, the development of the Christian Church, medieval culture, the rise of the nation-state, the Commercial Revolution, Renaissance, and the early European empires. Assessment: Placement in ENGL 1301; College-Level Reading. 3 credit hours. (A)

**HIST2312 Western Civilization II**

European civilization from 16th century to the present, including the Wars of Religion, the Enlightenment, the scientific and industrial revolutions, the rise of nationalism, the New Imperialism, and 20th century mass politics and world/cold wars. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**HIST2321 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**HIST2322 World Civilizations II**

Survey of modern world history, with emphasis on Asian, African, American, and European cultures, including the interplay of cultural and economic forces, political and religious forms, across the globe since 1450. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**HIST2327 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**HIST2328 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**HIST2381 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**HIST2389 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. (A)

**HITT1160 Clinical I - 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: HITT1301. 1 credit hour. (W)

**HITT1255 Health Care Statistics**

Principles of health care statistics with emphasis in hospital statistics. Skill development in computation and calculation of health data. Assessment: Placement in MATH1314. 2 credit hours. (W)

**HITT1266 Practicum-Health Information / Medical Records Technology**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: HITT1342 and POFM1300. 2 credit hours. (W)

**HITT1301 Health Data Content and Structure**

Introduction to systems and processes for collecting, maintaining, and disseminating primary and secondary health related information including content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens used in electronic and paper medical records. Prerequisite/Concurrent enrollment: SRGT1301. 3 credit hours. (W)

**HITT1311 Computers in Health Care**

Concepts of computer technology related to health care data. Lab required. 3 credit hours. (W)

**HITT1342 Ambulatory Coding**

Basic ambulatory coding rules, conventions and guidelines. Lab required. Prerequisites: HITT1301, POFM1300 and SRGT1301. Prerequisite/Concurrent enrollment: BIOL2404 (or BIOL2402). 3 credit hours. (W)



**HITT1345 Health Care Delivery Systems**  
Introduction to organization, financing, and delivery of health care services, accreditation, licensure, and regulatory agencies. This course covers alternative health care delivery systems. Prerequisite: HITT1301. 3 credit hours. (W)

**HITT2245 Coding Certification Exam Review**  
Review of coding competencies and skills in preparation for a coding certification exam. This course focuses on developing the skills of testing well on the unique course material with the objective of passing the coding credentialing exam. Therefore, the majority of the course involves review and testing. Prerequisite: Consent of Program Director. 2 credit hours. (W).

**HITT2249 RHIT Competency Review**  
Review of Health Information Technology (HIT) competencies, skills, and knowledge. Prerequisite/Concurrent enrollment: HITT2361 or consent of Program Director. 2 credit hours. (W)

**HITT2339 Health Information Organization and Supervision**  
Principles of organization and supervision of human, financial, and physical resources. Also covers health information for electronic records. Prerequisites: HITT1301, HPRS1271, and SRGT1301. 3 credit hours. (W)

**HITT2343 Quality Assessment and Performance Improvement**  
Study of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation and presentation of data in statistical formats, quality management and performance improvement functions, utilization management, risk management, and medical staff data quality issues. Prerequisite: HITT1255. 3 credit hours. (W)

**HITT2346 Advanced Medical Coding**  
ICD and CPT coding rules, conventions and guidelines in complex case studies. Investigation of government regulations and changes in health care reporting. Electronic encoder use covered and information about ICD-10. Prerequisites: POFM1300 and SRGT1301. 3 credit hours. (W)

**HITT2361 Clinical II-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. Students should

take this course in their final semester. Prerequisites: HITT1160 and consent of Program Director. 3 credit hours. (W)

**HPRS1204 Basic Health Profession Skills**  
A study of the concepts that serve as the foundation for health profession courses, including client care and safety issues, basic client monitoring, and health documentation methods. Lab required. 2 credit hours. (W)

**HPRS1271 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)

**HPRS2300 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)

**HPRS2301 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)

**HPRS2321 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)

**HPRS2371 The Case Management Process**  
Principles, concepts, process, roles, settings, and clinical practice of healthcare case managers are reviewed with a focus on standards of practice, managed care, quality of care and cost containment. Legal and ethical considerations and evidence-based practice are applied to case-based scenarios. Prerequisite: Awarded an AAS or BS in Nursing or current certification or licensure in a healthcare field of profession. 3 credit hours. (W)

**HPRS2372 Case Management Coordination and Financial Management**

The concept of coordination of care is studied within the case management continuum of care.

Identification, availability, and cost of available resources of care are explored. A case management resource path is developed for a specific disease, condition or injury. Prerequisite/Concurrent enrollment: HPRS 2371. 3 credit hours. (W)

**HPRS2373 Case Studies in Healthcare Case Management**

Case-based scenarios are used to provide student experience in healthcare case management. Students develop plans of care for cases in selected fields of clinical practice. Prerequisite: Consent of Instructor. Prerequisite/Concurrent enrollment: HPRS2371 and HPRS2372. 3 credit hours. (W)

**HPRS2374 Physiopathology**

The study of pathophysiological processes underlying human illness. Basic principles and processes covered will include such topics as cellular communication, genetic diseases, immune response, mechanism of infection, fluid and electrolyte disturbances, and tumor biology. A focus on specific body systems and common disorders will emphasize the etiology, clinical manifestation of symptoms, the body's response to altered health states and injury, and the management of diseases across the life span including diagnostic procedures, preventative measures, and current therapeutic regimens. Lab experience provides demonstration of pathological findings of disease. Lab required. Prerequisites: BIOL2401 and BIOL2402. 3 credit hours. (W)

**HRPO1302 Human Resource Training and Development**

An overview of human resource training and development as related to organizational mission and goals. 3 credit hours. (W)

**HRPO2301 Human Resources Management**

Behavioral and legal approaches to the management of human resources in organizations. 3 credit hours. (W)

**HRPO2304 Employee Relations**

An examination of policies, practices, and issues required to build strong employee relations. Topics include communications, employee conduct rules, performance appraisal methods, Title VII, Family Medical Leave Act, Fair Labor Standards Act, and Americans with Disabilities Act updates. 3 credit hours. (W)

**HRPO2307 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)

**HRPO2331 International Human Resource Management**

A study of the effects of globalization on human resource management. 3 credit hours. (W)

**HRPO2381 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)

**HUMA1301 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. Assessment: Placement in ENGL 1301; College-Level Reading. 3 credit hours. (A)

**HUMA1305 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**HUMA1311 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. (A)

**HUMA2319 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. Assessment: Placement in ENGL 1301; College-Level Reading. 3 credit hours. (A)

Note: This course may be repeated once for credit with a change in content for a total of 6 credit hours.

**HUMA2323 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

Note: Students may take either ANTH2346 or HUMA2323 for credit but not both.

**IBUS1305 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)

**IBUS1351 Multinational Enterprise and Partnerships**

The essential relationship between domestic and foreign business and industries engaged in shared services and production. Includes economic development through international co-production agreements with governments, technology transfer, legal, financial, labor and management factors, and practical applications of agreements. 3 credit hours. (W)

**IBUS1354 International Marketing Management**

Analysis of international marketing strategies using market trends, costs, forecasting, pricing, sourcing, and distribution factors. Development of an international marketing plan. 3 credit hours. (W)

**IBUS1380 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)

**IBUS1391 Special Topics in International Business**

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)

**Conducting Business with the International Countries**

A case-based approach to the study of international countries and its long-term, international economic potential. Students will study aspects of global capitalism represented by premier international suppliers of goods, services, and raw materials, along with their interactions with global organizations from countries outside their own borders and strategies of multinational companies operating in the global business environment

**IBUS2341 Intercultural Management**

Cross-cultural comparisons of management and communications processes. Emphasizes cultural ethnic 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)

**IBUS2381 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)

**IFWA1310 Nutrition and Menu Planning**

Application of principles of nutrition in planning menus for the food service industry. 3 credit hours. (W)

**IFWA 1319 Meat Identifying and Processing**

A study of the identification and characteristics of wholesale and retail cuts of meat; hotel, restaurant, and institutional cuts of meat; U.S.D.A. quality grades; quality control; and the Federal Meat Inspection Regulation. Lab required. Prerequisites: CHEF 1301, CHEF 1305, and CHEF 2331. 3 credit hours. (W)

**IMED1301 Introduction to Digital Media**

A survey of the theories, elements, and hardware/software components of digital media. Emphasis on conceptualizing and producing digital media presentations. The focus of the class is interface design, including: color theory, typography, graphics, layout, and interactive design. 3 credit hours. (W)

**IMED1316 Web Design I**

Instruction in web design and related graphic design issues including mark-up languages, web sites and browsers. Lab required. Prerequisite: ARTC1325 or consent of Instructor. 3 credit hours. (W)

**IMED1341 Interface Design**

Skill development in the interface design process including selecting interfaces 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)

**IMED1345 Interactive Digital Media I - Flash**

Exploration of the use of graphics and sound to create interactive digital media applications and/or animations using industry standard authoring software. 3 credit hours. (W)

**IMED2309 Internet Commerce**

An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Lab required. Prerequisite: ITSE 1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

**IMED2311 Portfolio Development**

Preparation and enhancement of portfolio to meet professional standards, development of presentation skills, and improvement of job-seeking techniques. Lab required. 3 credit hours. (W)

**IMED2315 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: IMED1316. 3 credit hours. (W)

**IMED2345 Interactive Digital Media II - Flash II**

Instruction in the use of scripting languages to create interactive digital media applications. Advanced use of graphics and sound to create interactive multimedia animations using industry standard authoring software. Prerequisite: IMED1345 or consent of Instructor or Department Chair. 3 credit hours. (W)

**IMED2349 Internet Communications**

Web server software installation, configuration, and maintenance. Includes scripting, website planning, testing, security, production, and marketing. Lab required. Prerequisite: IMED1316 or consent of Instructor. 3 credit hours. (W)

**INDS1271 Perspectives on Sustainable Living and Environmentally Conscious Building**

The course provides a forum for discussion of perspectives on the principles involved in Sustainable Living and Environmentally Conscious Building. 2 credit hours. (W)

**INDS1280 Cooperative Education-Interior Design-Green 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. 2 credit hours. (W)

**INDS1301 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)

**INDS1315 Materials, Methods and Estimating**

A study of materials, methods of construction and installation, and estimating for interior design applications. Lab required. Prerequisite: INDS1301 or consent of Program Director. 3 credit hours. (W)

**INDS1319 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: DFTG1309. 3 credit hours. (W)

**INDS1341 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)

**INDS1345 Commercial Design I**

A study of design principles applied to furniture layout and space planning for commercial interiors. Lab required. Prerequisites: DFTG1309, INDS1301, INDS1319, INDS1341, INDS1371, and INDS2313. 3 credit hours. (W)

**INDS1351 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)

**INDS1352 History of Interiors II**

Historical survey of English, American, Asian, and 20th Century styles and periods of architecture, interiors, and furnishings. Lab required. Prerequisite: INDS1351. 3 credit hours. (W)

**INDS1371 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)

**INDS1372 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)

**INDS1373 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: ITSE1371. 3 credit hours. (W)

**INDS1375 Green Building Certification Training**

The course provides a review of Green Building Certification and the Principles involved in Green Building Certification in preparation for sitting for a certification examination administered by an outside organization or agency. Prerequisites: DFTG1309 and INDS1371. 3 credit hours. (W)

**INDS1380 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)

**INDS2307 Textiles for Interior Design**

The study of interior design textiles including characteristics, care, codes, and applications. Prerequisites: DFTG1309, INDS1301, and INDS1341 or consent of Program Director. 3 credit hours. (W)

**INDS2313 Residential Design I**

The study of residential spaces, including the identification of client needs, programming, standards, space planning, drawings, and presentations. Lab required. Prerequisites: DFTG1309, INDS1301, and INDS1341. 3 credit hours. (W)

**INDS2315 Lighting for Interior Designer**

Fundamentals of lighting design, including lamps, luminaries, lighting techniques, and applications for residential and commercial projects. Lab required. 3 credit hours. (W)

**INDS2330 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: INDS1345 or consent of Program Director. 3 credit hours. (W)

**INDS2335 Residential Design II**

A comprehensive study of complex residential interior design problems, including advanced space planning, documentation, specifications, budgets, and presentation renderings. Lab required. Prerequisites: DFTG2319, INDS1319, and INDS2313, or consent of Program Director. 3 credit hours. (W)

**INDS2373 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: INDS1373. 3 credit hours. (W)

**INDS2374 Sustainable Living**

The course provides an introduction to sustainable thinking toward Green Built Environment. Emphasis is placed on: analyzing the Indoor Environment Quality, the effects of Indoor Air Quality on health and the well being of the occupants. The course strives to evaluate the relationship between humans and natural resources. Lab required. Prerequisites: DFTG1309, INDS1371, and INDS1373. 3 credit hours. (W)

**INEW2330 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. 3 credit hours. (W)

**INEW2334 Advanced Web Programming – ASP.NET**

Web programming using 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: COSC1315 and ITSE1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

**INEW2338 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: COSC1337 or ITSE2317 or consent of Instructor or Department Chair. 3 credit hours. (W)

**INEW2340 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. Lab required. Prerequisite: COSC1337 or COSC1437 or consent of Department Chair. 3 credit hours. (W)

**INMT1417 Industrial Automation**

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)

**INTC1305 Introduction to Instrumentation**

A survey of the instrumentation field and the professional requirements of the instrumentation technician. Lab required. 3 credit hours. (W)

**INTC1307 Instrumentation Test Equipment**

Theory and application of instrumentation test equipment. Emphasizes accuracy, limitations of instruments and calibration techniques. Lab required. 3 credit hours. (W)

**ITAL1411 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. (A)

**ITAL1412 Beginning Italian II**

Continuation of ITAL1411. Prerequisite: ITAL1411 or consent of Instructor or Department Chair. 4 credit hours. (A)

**ITCC1301 CCNA 1 Cisco Exploration I - Network Fundamentals**

A course introducing the architecture, structure, functions, components, and models of the internet.

Describes the use of OSI and TCP layered models to examine the nature and roles of protocols and services at the applications, network, data link, and physical layers. Covers the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Build simple LAN topologies by applying basic principles of cabling; perform basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. Lab required. 3 credit hours. (W)

**ITCC1304 CCNA 2 Cisco Exploration 2- Routing Protocols and Concepts**

This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Recognize and correct common routing issues and problems. Model and analyze routing processes. Lab required. Prerequisite: ITCC1301. 3 credit hours. (W)

**ITCC2308 CCNA 3 Cisco Exploration 3- LAN Switching and Wireless**

This course helps students develop an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Detailed explanations of LAN switch operations, VLAN implementation, Rapid Spanning Tree Protocol (RSTP), VLAN Trunking Protocol (VTP), Inter-VLAN routing, and wireless network operations. Analyze, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Campus network design and Layer 3 switching concepts are introduced. Lab required. Prerequisite: ITCC1304. 3 credit hours. (W)

**ITCC2310 CCNA 4 Cisco Exploration 4- Accessing the WAN**

This course explains the principles of traffic control and access control lists (ACLs) and provides an overview of the services and protocols at the data link layer for wide-area access. Describes user access technologies and devices and discover how to implement and configure Point-to-Point Protocol (PPP), Point-to-Point Protocol over Ethernet (PPPoE), DSL, and Frame Relay. WAN security concepts, tunneling, and VPN basics are introduced. Discuss the special network services required by converged applications and an introduction to quality of service (QoS). Lab required. Prerequisite: ITCC2308. 3 credit hours. (W)

**ITCC2470 Cisco CCNA Security**

*Replaces ITNW 1449*

The Cisco CCNA Security curriculum is taken in preparation for the Implementing Cisco ISO Network Security (IINS) Certification Exam (640-453) leading to the Cisco CCNA Security Certification. The course develops knowledge and skills in the network security area using the available Cisco tools and configurations. Through in-class lecture and lab sections, the following expertise is developed in the following areas: Protocol Sniffers/Analyzers, TCP/IP and common desktop utilities, Cisco IOS software, Cisco VPN clients, and Packet Tracer (PT). Lab required. Prerequisite: ITCC2310 or CCNA Certification and consent of Program Director. 4 credit hours. (W)

**ITCC2471 CCNP ROUTE: Implementing Cisco IP Routing**

The Cisco CCNP ROUTE curriculum is taken in preparation for the Cisco CCNP ROUTE Certification Exam (ROUTE 642-903) leading to the Cisco CCNP ROUTE Certification. The course develops knowledge and skills in the networking area using the available Cisco tools and configurations. Lab required. Prerequisite: ITCC2310 or CCNA Certification and consent of the Program Director. 4 credit hours. (W)

**ITCC2472 CCNP SWITCH: Implementing Cisco IP Switching**

The Cisco CCNP SWITCH curriculum is taken in preparation for the Cisco CCNP SWITCH Certification Exam (SWITCH 642-813) leading to the Cisco CCNP SWITCH Certification. The course develops knowledge and skills in the networking area using the available Cisco tools and configurations. Lab required. Prerequisite: ITCC2310 or CCNA Certification and consent of the Program Director. 4 credit hours. (W)

**ITCC2473 CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks**

The Cisco CCNP TSHOOT curriculum is taken in preparation for the Cisco CCNP TSHOOT Certification Exam (TSHOOT 642-832) leading to the Cisco CCNP TSHOOT Certification. The course develops knowledge and skills in the networking area using the available Cisco tools and configurations. Lab required. Prerequisites: ITCC2471 and ITCC2472 or consent of the Program Director. 4 credit hours. (W)

**ITMT1300 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. Microsoft Exam #70-270. Lab required. 3 credit hours. (W)

**ITMT1440 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. Microsoft Exam #70-290. Lab required. Prerequisite: ITMT1300 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT1450 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. Microsoft Exam #70-291. Lab required. Prerequisite: ITMT1440. 4 credit hours. (W)

**ITMT1455 Planning, Implementing, and Maintaining a Microsoft Server 2003 Network Infrastructure**

Planning and maintaining a Windows Server 2003 network infrastructure. Microsoft Exam #70-293. Lab required. Prerequisite: ITMT1450. 4 credit hours. (W)

**ITMT2400 Planning, Implementing, and Maintaining a Microsoft 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. Microsoft Exam #70-294. Lab required. Prerequisite: ITMT1455 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITMT2401 Windows Server 2008 Network Infrastructure Configuration**

A course in Windows Server 2008 networking infrastructure to include installation, configuration, and troubleshooting of Internet Protocol (IP) addressing, network services and security. (MS 70-642). Lab required. Prerequisite: ITMT2402. 4 credit hours. (W)

**ITMT2402 Windows Server 2008 Active Directory Configuration**

A study of Active Directory Service on Windows Server 2008. Concepts of resource management within an enterprise network environment. (MS 70-640). Lab required. Prerequisite: ITNW1358. 4 credit hours. (W)

**ITMT2403 Administering a Microsoft SQL Server Database**

In-depth coverage of the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server databases. Microsoft Exam #70-228. Lab required. Prerequisite: ITMT1440. 4 credit hours. (W)

**ITMT2422 Windows Server 2008 Applications Infrastructure Configuration**

A course in the installation, configuring, maintaining, and troubleshooting of an Internet Information Services (IIS) 7.0 web server and Terminal Services 2008 (MS 70-643). Lab required. Prerequisite: ITMT2401. 4 credit hours. (W)

**ITMT2430 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. Microsoft Exam #70-297. Lab required. Prerequisite: ITMT2400. 4 credit hours. (W)

**ITMT2440 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. Microsoft Exam #70-298. Lab required. Prerequisite: ITMT2400. 4 credit hours. (W)

**ITMT2450 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. Microsoft Exam #70-284. Lab required. Prerequisite: ITMT1440. 4 credit hours. (W)

**ITMT2451 Windows Server 2008: Server Administrator**

Knowledge and skills for the entry-level server administrator or information technology (IT) professional to implement, monitor and maintain Windows Server 2008 servers. (MS 70-646). Lab required. Prerequisite: ITMT2401. 4 credit hours. (W)

**ITMT2456 Windows Server 2008: Enterprise Administrator**

A capstone course in the design of Windows Server 2008 Enterprise Network Infrastructure that meets business and technical IT requirements for network services. (MS 70-647). Lab required. Prerequisite: ITMT2451. 4 credit hours. (W)

**ITNW1358 Network+**

Assists individuals in preparing for Computing Technology Industry Association (CompTIA) Network+ certification exam and career as a network professional. 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. Lab required. 3 credit hours. (W)

**ITNW1380 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)

**ITNW1451 Fundamentals of Wireless LANs**

Design, plan, implement, operate, and troubleshoot Wireless Local Area Networks (WLANs). Includes WLAN design, installation, and configuration; and WLAN security issues and vendor interoperability strategies. Lab required. 4 credit hours. (W)

**ITNW2346 Small Office Home Office: Case Study I**

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. Prerequisite: ITMT1440. 3 credit hours. (W)

**ITNW2350 Enterprise Network: Case Study II**

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. Prerequisite: ITMT1450. 3 credit hours. (W)

**ITNW2374 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. Prerequisite: ITSC1316. Lab required. 3 credit hours. (W)

**ITNW2473 Information Storage Management (EMC)**

The Information Storage Management course teaches the skills required in designing Storage Systems using Storage Networking Technologies and Virtualization concepts, Business Continuity approaches, and Storage Security and Management strategies. Lab required. Prerequisites: ITMT1300 and ITNW1358. 4 credit hours. (W)

**ITNW2474 Advanced Computer Networking Case Study**

A study of how to design networks in a hierarchical, modular fashion, design WAN networks, develop IP addressing, and select protocols for various design. Also, students will learn how to assess security and the implications of voice and wireless traffic. A case study puts students in the role of a network administrator proposing solutions to design problems. Study advanced network deployment and methods used to configure network devices for effective LAN and WAN traffic management. Topics include designing internetworks, managing traffic, configuring various routing and switching protocols, and techniques used for network security. Lab required. Prerequisite: ITCC2310 or CCNA Certification and consent of Program Director. 4 credit hours. (W)

**ITSC1305 Introduction to PC Operating Systems**

Introduction to personal computer operating systems including installation, configuration, file management, memory and storage management, control of peripheral devices, and use of utilities. The Windows operating system will be compared to that of the Mac OS and a popular Linux distribution from the end-user perspective. Hands-on lab experience for each operating system is provided. 3 credit hours. (W)

**ITSC1309 Integrated Software Applications I-MS Office**

Introduction to business productivity software suites using word processing, spreadsheets, databases, and/or presentation software. Prerequisite: POFT1127 or POFT1329 or POFT2301 or consent of Department Faculty Contact. 3 credit hours. (W)

**ITSC1316 Linux Installation and Configuration**

Introduction to 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. Lab required. Prerequisite: ITNW1358 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSC1364 Practicum-Computer and Information Sciences, General**

A basic or intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience. Prerequisite: Consent of Department Chair. 3 credit hours. (W)

**ITSC2339 Personal Computer Help Desk Support**

Diagnosis and solution of user hardware and software related problems with on-the-job and/or simulated projects. Prerequisites: ITNW 1358 and ITSC 1305. 3 credit hours. (W)

**ITSC2380 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)

**ITSE1301 Web Design Tools - Graphics**

Designing and publishing Web documents according to World Wide Web Consortium (W3C) standards. Emphasis on optimization of graphics and images and exploration of the 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 Photoshop and Adobe Dreamweaver. 3 credit hours. (W)

**ITSE1306 PHP Programming**

Introduction to PHP, including the design of web-based applications, arrays, strings, regular expressions, file input/output, e-mail and database interfaces, stream and network programming, debugging, and security. Emphasizes hands-on

programming skills necessary to develop secure and reliable PHP based web applications. Lab required. Prerequisites: COSC1315 and ITSE1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **ITSE1311 Beginning Web Programming**

Skill development in web programming including mark-up 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. 3 credit hours. (W)

### **ITSE1330 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: BCIS1320 or COSC1315 or COSC1436 or consent of instructor or Department Chair. 3 credit hours. (W)

### **ITSE1332 Introduction to Visual Basic.NET Programming**

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)

### **ITSE1347 Programming with Visual Basic.NET**

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: ITSE1332. 3 credit hours. (W)

### **TSE1356 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: ITSE1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **ITSE1359 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: ITSE2302 or consent of Instructor. 3 credit hours. (W)

### **ITSE1370 Introduction to iOS Development**

Course explores developing applications for iOS based devices such as iPhone, iPod Touch and iPad. Course will provide an overview of iOS development from use of current iOS SDK, to design of applications and industry business practices. Prior programming experience in either C or an Object-Oriented Programming language is recommended for this course. 3 credit hours. (W)

### **ITSE1371 iOS Programming I**

This course is intended to prepare the student for development of iOS devices, including iPhone, iPod Touch and iPad. Objective-C is the native language for iOS development, and the course will cover the basics of the language and the use of development tools for mobile device programming. Topics to be covered will include basic data types, classes and objects, looping structures, decision making, inheritance and memory management. Course will also provide an introduction to the Cocoa Touch toolkit. Prerequisite: BCIS 1320 or COSC 1315 or COSC 1436 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **ITSE1372 J2ME Mobile Programming I**

Course explores developing applications for handheld, mobile devices (cell phones, etc.) including the J2ME Java language extensions, the Sun Integrated Development Environment (IDE), and the platform standards. This course will focus on the issues associated with programming of mobile devices. Prerequisite: COSC 1337 or consent of Instructor or Department Chair. 3 credit hours. (W)

### **ITSE1373 Android Mobile Programming I**

This course introduces mobile application development for the Android platform. Students will learn how to design, develop, test, and debug mobile Android applications. Topics include the Android Software Development Kit (SDK), design principles, application structure, and current issues in

programming mobile devices. Prerequisite: COSC1337 or consent of Instructor or Department Chair. 3 credit hours. (W)

#### **ITSE1374 Mobile Web**

Course explores creating mobile web sites using HTML, CSS and JavaScript. Course will focus on mobile web development for smartphones. Course may provide a general overview of multiple mobile devices, or concentrate on a specific mobile device such as iPhone, Android, Blackberry or Windows mobile. Prerequisite: ITSE 2302 or consent of Instructor or Department Chair. 3 credit hours. (W)

#### **ITSE1380 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)

#### **ITSE1391 Special Topics in Computer Programming**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Lab required. 3 credit hours. (W)

#### **Embedded C/C++ Programming**

Exploration of programming embedded systems using an embedded C/C++ compiler. Concepts of interrupts, stacks, RAM (random access memory) types, ROM (read-only memory) types, bit-banding, registers, (GPIO) General Purpose Input/Output, vector tables, buses, exceptions, pipelining, MPU (Microprocessor Units) and RTOSs (recovery time objectives) will be introduced and explained. The course will be as hardware-generic as possible, but labs will be focused on ARM (Advanced RISC (reduced instruction set computer) Machine) Cortex MO evaluation boards. Prerequisite: COSC1437.

#### **Programming Mobile Devices With Java J2ME**

Course explores developing applications for hand-held, mobile devices (cell phones, etc.) including the J2ME Java language extensions, the

Sun Integrated Development Environment (IDE), and the platform standards. This course will focus on the issues associated with programming of mobile devices. Prerequisite: COSC1337 or consent of instructor or Department Chair.

#### **ITSE1392 Special Topics in Computer Programming**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Lab required. 3 credit hours. (W)

#### **Introduction to iPhone Programming**

Course explores developing applications for the iPhone, iPod Touch and iPad. Course will provide an overview of iPhone development. Will focus on developing with the iPhone SDK along with current issues in programming for the iPhone. Prerequisite: BCIS1321 or COSC1315 or COSC1436 or consent of Instructor or Department Chair.

#### **Objective-C for iPhone Development**

Course explores developing applications for the iPhone, iPod Touch and iPad using Objective-C programming language. The course will focus on the Objective-C programming language and the Cocoa toolkit used in iPhone and iPad development. Prerequisite: BCIS1321 or COSC1315 or COSC1436 or consent of Instructor or Department Chair.

#### **ITSE1394 Special Topics in Computer Science**

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)

#### **Windows vs. Mac OS**

This class provides a comparative analysis of current trends in personal computer operating systems. Major emphasis will be placed on Microsoft's Windows 7 and Apple's Snow Leopard. Other alternatives will also be explored. Operating systems will be covered from an end-user perspective. Hands-on labs allow students to experience using each operating system.

**ITSE2301 Windows Programming Using C++**

Introduction to computer programming for Windows using C++. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data, and file structures, input/output devices, and files. Uses Visual C++ in an integrated development environment. Prerequisite: COSC1437 or consent of Instructor or Department Chair. 3 credit hours. (W)

**ITSE2302 Intermediate Web Programming**

Techniques for web development. Includes server-side and client-side 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: ITSE1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

**ITSE2304 Visual Basic.NET Database Development with ADO.NET**

Visual Basic.NET applications to access data from a database. Emphasizes Object-Oriented Programming (OOP) and database programming with ADO.NET. Prerequisites: ITSE1332 and ITSE2309 or ITSW1307. 3 credit hours. (W)

**ITSE2309 Database Programming - SQL**

Database development using database programming techniques emphasizing database structures, modeling, and database access. 3 credit hours. (W)

**ITSE2313 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: ITSE1311 or consent of Instructor or Department Chair. 3 credit hours. (W)

**ITSE2317 Java Programming**

Introduction to object-oriented Java programming, including 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: COSC1436 or consent of Department Chair. 3 credit hours. (W)

**ITSE2334 Advanced Visual Basic.NET Programming with ASP.NET**

Continuation of Visual Basic.NET programming using advanced features. 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: ITSE1311 and ITSE1347. 3 credit hours. (W)

**ITSE2338 C# Database Development with ADO.NET and LINQ**

C# applications to access data from a database. Emphasizes Object-Oriented Programming (OOP) and database programming with ADO.NET. Prerequisite: ITSE1330 or consent of Instructor or Department Chair. 3 credit hours. (W)

**ITSE2347 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: ITSE2309 or consent of Department Chair. 3 credit hours. (W)

**ITSE2353 Advanced C# Programming with ASP.NET**

Continuation of C# programming using advanced features of the .NET Framework Class Library. 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: ITSE1330 or consent of Department Chair. 3 credit hours. (W)

**ITSE2354 Advanced Oracle PL/SQL**

A continuation of Oracle SQL. Topics include hierarchical queries, set based subqueries, correlated subqueries, scripting, and scripting generation. Emphasizes stored procedures PL/SQL objects, large objects, data structures and processing for aggregated data, and Business Intelligence Query and Analysis. Lab required. Prerequisite: ITSE2309. 3 credit hours. (W)

**ITSE2371 iOS Programming II**

Course explores developing applications for iOS devices (iPhone, iPod Touch and iPad). The course will focus on data management, network connectivity, and other advanced iOS programming topics. Prerequisites: ITSE 1370 and ITSE 1371 or consent of Instructor or Department Chair. 3 credit hours. (W)

**ITSE2372 J2ME Mobile Programming II**

Course continues to explore the development of applications for hand-held, mobile devices (cell phones, etc.) including the J2ME Java language extensions, the Sun Integrated Development Environment (IDE), and the platform standards. This course will focus on advanced topics related to programming mobile devices with J2ME. Prerequisite: ITSE 1372 or consent of Instructor or Department Chair. 3 credit hours. (W)

**ITSE2373 Android Mobile Programming II**

This course continues to explore mobile application development for the Android platform. Students will design, develop, test, and debug more advanced mobile Android applications. Course will focus on more advanced topics related to programming mobile devices. Prerequisite: ITSE 1373 or consent of Instructor or Department Chair. 3 credit hours. (W)

**ITSE2380 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)

**ITSE2431 Advanced C++ Programming**

Further application of C++ programming techniques including subjects such as 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: COSC1436 or consent of Department Chair. 4 credit hours. (W)

**ITSW1304 Introduction to Spreadsheets-Excel**

Instruction in the concepts, procedures, and application of electronic spreadsheets. 3 credit hours. (W)

**ITSW1307 Introduction to Database-Access**

Introduction to database theory and the practical applications of a database. Emphasis on database design, custom reports, file management, and application creation. 3 credit hours. (W)

**ITSW1380 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)

**ITSW2380 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: ITSW1380 or consent of Department Chair. 3 credit hours. (W)

**ITSY1300 Fundamentals of Information Security**

An introduction to information security including vocabulary and terminology, ethics, the legal environment, and risk management. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning, policies and controls is also discussed. Lab required. Prerequisite: BCIS1305 or COSC1301 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSY1400 Fundamentals of Information Security (Security +)**

An introduction to information security including vocabulary and terminology, ethics, the legal environment, and risk management. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning, policies and controls is also discussed. Lab required. Prerequisite: ITNW1358. 4 credit hours. (W)

**ITSY2300 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)

**ITSY2301 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: ITSY2300 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSY2341 Security Management Practices**

Replaces ITSY 2441 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: ITSY2300 or consent of Program Director. 3 credit hours. (W)

**ITSY2342 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: ITSY2300 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSY2343 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)

**ITSY2371 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: ITSY2300 and ITSY2301 or consent of Instructor or Program Director. 3 credit hours. (W)

**ITSY2401 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: ITSY2300 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITSY2442 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: ITSY2300 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITSY2443 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: ITSY2442 or consent of Instructor or Program Director. 4 credit hours. (W)

**ITSY2572 Certified Information Systems Security Professional (CISSP) Common Body of Knowledge Domain Instruction**

An in-depth study of the 10 domains which make up the Common Body of Knowledge (CBK) of information security professionals. The course is designed to instruct individuals to implement solid security practices, perform risk analysis, identify necessary countermeasures, and help the enterprise as a whole protect its facility, network, systems, and information. Prerequisites: ITSY1400 and ITSY2300 or equivalent experience and consent of Program Director. 5 credit hours. (W)

**JAPN1411 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. (A)

**JAPN1412 Beginning Japanese II**

A continuation of JAPN1411. Prerequisite: JAPN1411 or consent of Instructor or Department Chair. 4 credit hours. (A)

**JAPN2311 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: JAPN1412 or consent of Instructor or Department Chair. 3 credit hours. (A)

**JAPN2312 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: JAPN2311 or consent of Instructor or Department Chair. 3 credit hours. (A)

**LEAD1301 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. (A)

Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

**LEAD2301 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. (A)  
Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

**LGLA1303 Legal Research**

This course presents law library techniques and computer assisted legal research. 3 credit hours. (W)

**LGLA1307 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's role. 3 credit hours. (W)

**LGLA1342 Federal Civil Litigation**

This course presents fundamental concepts and procedures of federal civil litigation with emphasis on the paralegal's role. 3 credit hours. (W)

**LGLA1343 Bankruptcy**

This course presents fundamental concepts of bankruptcy law and procedure with emphasis on the paralegal's role. Topics include individual and business liquidation and reorganization. 3 credit hours. (W)

**LGLA1344 Texas Civil Litigation**

This course presents the 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)

**LGLA1353 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)

**LGLA1355 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)

**LGLA1380 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)



**LGLA2239 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)

**LGLA2303 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)

**LGLA2307 Law Office Management**

This course presents the fundamentals of principles and structure of management, administration, and substantive systems in the law office including law practice technology as applied to paralegals. 3 credit hours. (W)

**LGLA2311 Business Organizations**

This course presents 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: LGLA1307 or LGLA2333 or consent of Instructor or Department Faculty Contact. 3 credit hours. (W)

**LGLA2333 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. 3 credit hours. (W)

**MATH0131 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 required. Assessment: Placement in MATH0305. Prerequisite: MATH0302. 1 credit hour. (D)

Note: Developmental courses may be taken for a combined total of no more than 27 credit hours.

**MATH0132 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

required. Assessment: Placement in MATH0132. Prerequisite: MATH0131. 1 credit hour. (D)  
Note: Developmental courses may be taken for a combined total of no more than 27 credit hours.

**MATH0133 Beginning Algebra III**

This course is designed to develop an understanding of problem solving techniques, rational expressions and equations. Graphing calculator is required. Lab required. Assessment: Placement in MATH0133. Prerequisite: MATH0132. 1 credit hour. (D)  
Note: . Developmental courses may be taken for a combined total of no more than 27 credit hours.

**MATH0141 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 required. Assessment: Placement in MATH 0310. Prerequisite: MATH0305 or MATH0133. 1 credit hour. (D) Note: May not be used to satisfy the requirement of an associate degree. Developmental courses may be taken for a combined total of no more than 27 credit hours.

**MATH0142 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 required. Assessment: Placement in MATH0142. Prerequisite: MATH0141. 1 credit hour. (D) 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.

**MATH0143 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 required. Assessment: Placement in MATH0143. Prerequisite: MATH0142. 1 credit hour. (D)

Note: Developmental courses may be taken for a combined total of no more than 27 credit hours.

**MATH0300 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 required. 3 credit hours. (D) Note: Developmental courses may be taken for a combined total of no more than 27 credit hours.

**MATH0302 Pre-algebra**

Study of mathematical operations with signed numbers, algebraic expressions, and polynomials; involves solving linear equations and geometric applications. Lab required. Assessment: Placement in MATH0302. Prerequisite: MATH0300. 3 credit hours. (D)

Note: Developmental courses may be taken for a combined total of no more than 27 credit hours.

**MATH0305 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 required. Assessment: Placement in MATH0305. Prerequisite: MATH0302. 3 credit hours. (D)

Note: Developmental courses may be taken for a combined total of no more than 27 credit hours.

**MATH0310 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 required. Assessment: Placement in MATH0310. Prerequisite: MATH0305. 3 credit hours. (D)

Note: Developmental courses may be taken for a combined total of no more than 27 credit hours.

**MATH1314 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. Assessment: Placement in MATH1314, MATH1324 or MATH1342. Prerequisite: TSI placement. 3 credit hours. (A)

Note: Students may take either MATH1314 or MATH1414 but not both.

**MATH1316 Trigonometry**

Angular measure, functions of angles, identities, solution of triangles, equations, inverse trigonometric functions, complex numbers, and polar coordinates. Graphing calculator required. Assessment: Placement in MATH1316, MATH1325, MATH1350, or MATH2373. Prerequisite: MATH1314 or MATH1414 or TSI placement. 3 credit hours. (A)

**MATH1324 Finite Mathematics**

Equations, inequalities, functions, matrices, linear programming including the simplex method,

probability, and statistics. Graphing calculator required. Lab required. Assessment: Placement in MATH1314, MATH1324, or MATH1342. Prerequisite: TSI placement. 3 credit hours. (A)

**MATH1325 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. Assessment: Placement in MATH1316, MATH1325, MATH1350 or MATH2373. Prerequisite: MATH1314, MATH1324, or MATH1414. 3 credit hours. (A)

**MATH1332 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. Assessment: Placement in MATH1332. Prerequisite: TSI placement. 3 credit hours. (A)

**MATH1342 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. Assessment: Placement in MATH1314, MATH1324, or MATH1342. Prerequisite: TSI placement. 3 credit hours. (A)

**MATH1350 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. Assessment: Placement in MATH1316, MATH1325, MATH1350, or MATH2373. Prerequisite: MATH1314 or MATH1414. 3 credit hours. (A)

**MATH1351 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: MATH1314, MATH1350, or MATH1414. 3 credit hours. (A)

### **MATH1376 Calculus for Business and Economics II**

Continuation of MATH1325. 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: MATH1325. 3 credit hours. (A)  
Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

### **MATH1414 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. Assessment: Placement in MATH1414. Prerequisite: TSI placement. 4 credit hours. (A)  
Note: Students may take either MATH1314 or MATH1414 but not both.

### **MATH2305 Discrete Mathematics**

Introductory mathematical logic, algorithms, induction, relations and functions, basic counting techniques, and applications to computing devices. Lab required. Prerequisite: MATH1376, MATH2413, or MATH2417. 3 credit hours. (A)

### **MATH2312 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. Assessment: Placement in MATH2312. Prerequisite: MATH1316. 3 credit hours. (A)

### **MATH2318 Linear Algebra**

Linear equations, matrices, real vector spaces, linear transformations, and eigenvectors. Graphing calculator required. Prerequisite: MATH2414 or MATH2419. 3 credit hours. (A)

### **MATH2320 Differential Equations**

Ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, and boundary value problems; application of differential equations to real-world problems.

Graphing calculator required. Prerequisite: MATH2414 or MATH2419. 3 credit hours. (A)

### **MATH2373 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. Assessment: Placement in MATH1316, MATH1325, MATH1350, or MATH2373. Prerequisite: MATH1314 or MATH1414. 3 credit hours. (A)  
Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

### **MATH2413 Calculus I**

Limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas. Graphing calculator required. Lab included. Assessment: Placement in MATH2413 or higher. Prerequisite: MATH2312. 4 credit hours. (A)  
Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Mathematics Department for further information.

### **MATH2414 Calculus II**

Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals. Graphing calculator required. Lab included. Prerequisite: MATH2413. 4 credit hours. (A)  
Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Mathematics Department for further information.

### **MATH2415 Calculus III**

Advanced topics in calculus, including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, and Jacobians; application of the line integral, including Green's Theorem, the Divergence Theorem, and Stokes' Theorem. Graphing calculator required. Lab included. Prerequisite: MATH2414 or MATH2419. 4 credit hours. (A)  
Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural

Sciences (CASMNS). Contact the Mathematics Department for further information.

### **MATH2417 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. Assessment: Placement in MATH2413 or higher. Prerequisite: MATH2312. 4 credit hours. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Mathematics Department for further information.

### **MATH2419 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: MATH2414 or MATH2417. 4 credit hours. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Mathematics Department for further information.

### **MDCA1343 Medical Insurance/Billing**

Emphasizes medical office coding procedures for payment/reimbursement by patient or third party. Additional topics may include managed care and medical economics. Medical insurance billing included. Prerequisite: SRGT 1301. 3 credit hours. (W)

### **MDCA1348 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)

### **MDCA1409 Anatomy and Physiology for Medical Assistants**

Emphasis on structure and function of human cells, tissues, organs, and systems with overview of common pathophysiology. Lab required. Prerequisites: EMSP 1501, and consent of Program Director. 4 credit hours. (W)

### **MRKG1301 Customer Relationship Management**

General principles of customer service including skills, knowledge, attitudes, and behaviors. 3 credit hours. (W)

### **MRKG1302 Principles of Retailing**

Introduction to the retailing environment, types of retailers, current trends, the employment of retailing techniques and factors that influence retailing. 3 credit hours. (W)

### **MRKG1311 Principles of Marketing**

Introduction to the marketing mix functions and process. Includes identification of consumer and organizational needs and explanation of environmental issues. 3 credit hours. (W)

### **MRKG1380 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)

### **MRKG2333 Principles of Selling**

*Formerly BUSI1311*

Overview of the selling process. Identification of the elements of the communication process between buyers and sellers. Examination of the legal and ethical issues of organizations which affect salespeople. 3 credit hours. (W)

### **MRKG2348 Marketing Research and Strategies**

Practical experiences in analyzing marketing studies using data-driven decision-making processes. Includes interrelationships among marketing price, place, promotion, and product responsibility. 3 credit hours. (W)

**MRKG2349 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)

**MRKG2381 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)

**MUAP1101–1191 Secondary Applied Music**

Private instruction in the area of the student's concentration, consisting of one 25-minute lesson per week. Students must remain enrolled in 1 credit hour of a MUEN course, attend weekly Departmental recitals for the semester, and participate in a jury. Contact Music Department for permission prior to registering. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP1101-MUAP2391.

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 1184	Vocal Coaching
MUAP 1187	Composition
MUAP 1188	Electroacoustic Composition
MUAP 1189	Songwriting
MUAP 1190	Arranging
MUAP 1191	Conducting

**MUAP2201–2291 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. Contact Music Department for permission prior to registering. Prerequisite: Audition. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP1101-MUAP2391.

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

**MUEN1121 Jazz Band Lab**

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. (A)

Note: Students may take MUEN1121, MUEN1122, and MUEN1123 for a combined total of no more than 8 credit hours.

**MUEN1131 New Music Ensemble**

Performs experimental, avant garde, electronic, and contemporary music for mixed media ensemble.

Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN1131, MUEN 1132, MUEN1133, MUEN1134, MUEN1135, MUEN 1136, MUEN1137, MUEN1138, MUEN1139, and MUEN1140 for a combined total of no more than 8 credit hours.

**MUEN1132 Keyboard Ensemble**

Traditional piano literature for multiple performers and arrangements for electronic keyboard ensemble. Several performances each semester. Prerequisite:

Audition. 1 credit hour. (A)

Note: Students may take MUEN1131, MUEN 1132, MUEN1133, MUEN1134, MUEN1135, MUEN 1136, MUEN1137, MUEN1138, MUEN1139, and MUEN1140 for a combined total of no more than 8 credit hours.

**MUEN1133 Woodwind Ensemble**

A small group of woodwinds performs traditional classical repertoire. Prerequisite: Audition. 1 credit hour. (A) Note: Students may take MUEN1131, MUEN 1132, MUEN1133, MUEN1134, MUEN1135, MUEN 1136, MUEN1137, MUEN1138, MUEN1139, and MUEN1140 for a combined total of no more than 8 credit hours.

**MUEN1134 Brass Ensemble**

A small group of brass players performs traditional classical repertoire. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN1131, MUEN 1132, MUEN1133, MUEN1134, MUEN1135, MUEN 1136, MUEN1137, MUEN1138, MUEN1139, and MUEN1140 for a combined total of no more than 8 credit hours.

**MUEN1135 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. (A)

Note: Students may take MUEN1131, MUEN 1132, MUEN1133, MUEN1134, MUEN1135, MUEN 1136, MUEN1137, MUEN1138, MUEN1139, and MUEN1140 for a combined total of no more than 8 credit hours.

**MUEN1136 Chamber Ensemble**

A mixed instrumentation of wind and string players performs traditional classical repertoire. Prerequisite:

Audition. 1 credit hour. (A)

Note: Students may take MUEN1131, MUEN 1132, MUEN1133, MUEN1134, MUEN1135, MUEN 1136, MUEN1137, MUEN1138, MUEN1139, and MUEN1140 for a combined total of no more than 8 credit hours.

**MUEN1137 Guitar Ensemble**

A small group of guitarists performs traditional classical repertoire. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN1131, MUEN 1132, MUEN1133, MUEN1134, MUEN1135, MUEN 1136, MUEN1137, MUEN1138, MUEN1139, and MUEN1140 for a combined total of no more than 8 credit hours.

**MUEN1138 Percussion Ensemble**

A small group of percussion players performs jazz and traditional repertoire. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN1131, MUEN 1132, MUEN1133, MUEN1134, MUEN1135, MUEN 1136, MUEN1137, MUEN1138, MUEN1139, and MUEN1140 for a combined total of no more than 8 credit hours.

**MUEN1139 String Ensemble**

A small group of string players performs traditional classical repertoire. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN1131, MUEN 1132, MUEN1133, MUEN1134, MUEN1135, MUEN 1136, MUEN1137, MUEN1138, MUEN1139, and MUEN1140 for a combined total of no more than 8 credit hours.

**MUEN1140 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. (A)

Note: Students may take MUEN1131, MUEN1132, MUEN1133, MUEN1134, MUEN1135, MUEN1136, MUEN1137, MUEN1138, MUEN1139, and MUEN1140 for a combined total of no more than 8 credit hours.

#### **MUEN1141 Collin 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. (A)  
Note: Student may take MUEN1141 and MUEN1142 for a combined total of no more than 8 credit hours.

#### **MUEN1142 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. (A)

Note: Student may take MUEN1141 and MUEN1142 for a combined total of no more than 8 credit hours.

#### **MUEN1151 Chamber Singers**

A select audition-only vocal ensemble. 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. (A)

Note: Students may take MUEN1151, MUEN1152 and MUEN1153 for a combined total of no more than 8 credit hours.

#### **MUEN1152 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. (A)

Note: Students may take MUEN1151, MUEN1152 and MUEN1153 for a combined total of no more than 8 credit hours.

#### **MUEN1153 Chamber Choir**

A select audition-only choir devoted to performance of an eclectic repertory of choral literature for mixed voices (S.A.T.B.). This course will focus on the development of vocal technique, performance practices, and will culminate with several performances throughout the year both on and off campus. This group may have an annual tour. Repertoire consists of advanced collegiate music. Prerequisite: Consent of Instructor. 1 credit hour. (A)

Note: Students may take MUEN1151, MUEN1152 and MUEN1153 for a combined total of no more than 8 credit hours.

#### **MUSB1305 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)

#### **MUSB1341 Concert Promotion and Venue Management**

Concert promotion and venue management. Includes considerations in purchasing a club, concert promotion and advertising, talent buying, city codes, insurance, Texas Alcoholic Beverage Commission Regulation, performance rights organization licenses, personnel management and concert production and administration. Lab required. Prerequisite: MUSB1305. 3 credit hours. (W)

#### **MUSB1391 Special Topics in Music Business Management and Merchandising**

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)

#### **Music Marketing with Emerging Technologies**

Topics address marketing with new technologies including web-based networking and social media, global music marketing, creative commons, placing music in film and television,

and mobile music applications. Prerequisite: MUSB1305.

### **MUSB2301 Music Marketing**

Methods of music distribution, retailing, and wholesaling. Includes identifying a target market, image building, distribution (brick and mortar vs. digital delivery), pricing, advertising, and marketing mix. 3 credit hours. (W)

### **MUSB2345 Live Music and Talent Management**

An examination of the role, scope, and activities of the talent manager including establishing the artist/manager relationship; planning the artist's career; and developing goals, strategies, and tactics with an overall view of the live music business. Prerequisite: MUSB1305. 3 credit hours. (W)

### **MUSB2350 Commercial Music Project**

The primary objective of this course is to apply the skills learned in other Commercial Music courses. This is a hands-on project oriented course aimed at helping students create a portfolio of their work. Artists and their music will be the focus. Each student must design and complete his/her own project with instructor approval. Lab required. Prerequisite: Consent of Department Chair. 3 credit hours. (W)

### **MUSB2355 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: MUSB1305. 3 credit hours. (W)

### **MUSB2380 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)

### **MUSC1209 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)

### **MUSC1303 History of Popular Music**

A survey 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)

### **MUSC1313 Commercial Music Theory I**

Introduction to chord progressions, song forms, and harmonic techniques used in commercial music. Topics include modern chord notation and chord voicings. Prerequisite: MUSI1301. 3 credit hours. (W)

### **MUSC1321 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)

### **MUSC1323 Audio Electronics**

Basic concepts in electricity, Ohm's Law, circuit analysis and troubleshooting. Includes soldering techniques, and equipment maintenance. Lab required. 3 credit hours. (W)

### **MUSC1327 Audio Engineering I**

Overview of the recording studio. Includes basic studio electronics and acoustic principles, waveform properties, microphone concepts and placement techniques, studio set up and signal flow, console theory, signal processing concepts, multi-track principles and operation, and an overview of mixing and editing. Lab required. 3 credit hours. (W)

### **MUSC1331 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)

### **MUSC1333 Synthesis I**

An exploration of sound synthesis. Includes additive, subtractive, and FM synthesizers. Lab required. 3 credit hours. (W)

### **MUSC1405 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. Prerequisite: MUSC1327. 4 credit hours. (W)



**MUSC2313 Commercial Music Theory II**

Continuation of Commercial Music Theory I. Emphasizes harmonic and melodic analysis, extended chord theory, and modal and altered scales. Prerequisite: MUSC1313 or consent of Instructor. 3 credit hours. (W)

**MUSC2314 Improvisation Theory I**

Chordal structures of commercial music genres. Emphasizes extemporaneous performance. 3 credit hours. (W)

**MUSC2330 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)

**MUSC2345 Synthesis II**

Advanced sound synthesis. Includes hybrid synthesis and digital sampling. Lab required. Prerequisite: MUSC1333. 3 credit hours. (W)

**MUSC2351 Audio for Video**

Advanced audio techniques for video production. Includes synchronization, automated mixdown, audio post production for video, and editing techniques. Lab required. Prerequisite: ARTV1343 or MUSC1327. 3 credit hours. (W)

**MUSC2355 MIDI II**

Advanced MIDI concepts and techniques. Includes synchronizing MIDI and audio devices and advanced sequencer operation. Lab required. Prerequisite: MUSC1331. 3 credit hours. (W)

**MUSC2356 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: MUSC1321, or consent of Instructor. 3 credit hours. (W)

**MUSC2427 Audio Engineering II**

Implementation of the recording process, microphones, audio console, multi-track recorder, and signal processing devices. Lab required. Prerequisite: MUSC1327 with a grade of "B" or better; or consent of Instructor. 4 credit hours. (W)

**MUSC2447 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: MUSC2427 with a grade of "B" or better; or consent of Instructor. 4 credit hours. (W)

**MUSC2448 Audio Engineering IV**

Advanced recording, mixing, arranging, and editing. Includes the role of the producer in session planning, communication, budgeting, business aspects, technical considerations, and music markets. Lab required. Prerequisite: MUSC2447 with a grade of "B" or better; or consent of Instructor. 4 credit hours. (W)

**MUSI1116 Aural Skills I**

Skills developed include sight-singing, solmization, and melodic and harmonic dictation. Prerequisite: MUSI1301. 1 credit hour. (A)  
Note: Student may take MUSI1116 and MUSI1117 for a combined total of no more than 6 credit hours.

**MUSI1117 Aural Skills II**

Further emphasis on diatonic sight-singing and dictation. Prerequisite: MUSI1116. 1 credit hour. (A)  
Note: Student may take MUSI1116 and MUSI1117 for a combined total of no more than 6 credit hours.

**MUSI1160 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. (A)

**MUSI1161 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. Prerequisite: MUSC1301. 1 credit hour. (A)

**MUSI1181 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. Lab required. Prerequisite: MUSI 1301. 1 credit hour. (A)  
Note: Student may take MUSI1181, MUSI1182, MUSI2181, and MUSI2182 for a combined total of no more than 4 credit hours.

**MUSI1182 Beginning Piano II**

Development on two octave minor scales, arpeggios, diatonic chord progressions, and piano repertoire.

Lab required. Prerequisite: MUSI 1181. 1 credit hour. (A)

Note: Student may take MUSI1181, MUSI1182, MUSI2181, and MUSI2182 for a combined total of no more than 4 credit hours.

**MUSI1183 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. (A)

Note: Student may take MUSI1183, MUSI1184, MUSI2183, and MUSI2184 for a combined total of no more than 4 credit hours.

**MUSI1184 Class Voice II**

A continuation of MUSI 1183 with further emphasis on proper technique and vocal literature. May be repeated for up to 3 credit hours. Prerequisite: MUSI 1183. 1 credit hour. (A)

Note: Student may take MUSI1183, MUSI1184, MUSI2183, and MUSI2184 for a combined total of no more than 4 credit hours.

**MUSI1192 Class Guitar I**

Class instruction in the fundamentals of beginning guitar. For the non-guitar major. 1 credit hour. (A)

Note: Student may take MUSI1192, MUSI1193, MUSI2192, and MUSI2193 for a combined total of no more than 4 credit hours.

**MUSI1193 Class Guitar II**

Continuation of MUSI1192 employing advanced reading skills, chord structures, and techniques.

Prerequisite: MUSI1192. 1 credit hour. (A)

Note: Student may take MUSI1192, MUSI1193, MUSI2192, and MUSI2193 for a combined total of no more than 4 credit hours.

**MUSI1301 Music Fundamentals**

Introduces the elements of music theory: scales, intervals, keys, triads, elementary ear training, keyboard harmony, notation, meter, and rhythm. 3 credit hours. (A)

**MUSI1304 Foundations of Music: Teaching Elementary Piano**

Study of the fundamentals of music for prospective classroom teachers with an introduction to melodic, rhythmic, and harmonic elements. Emphasis on participation in singing and reading music. Additional emphasis on examining various methods, materials, theories, and techniques used in the instruction of

keyboard from preschool through intermediate levels, in both individual and group situations. A thorough investigation will be made of current teaching materials and repertoire representing different levels of development. Prerequisite: Consent of Instructor. 3 credit hours. (A)

**MUSI1306 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. Assessment: Placement in at least READ0310. 3 credit hours. (A)

**MUSI1307 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. Prerequisite: MUSI1301. 3 credit hours. (A)

**MUSI1310 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. (A)

**MUSI1311 Music Theory I**

Investigation of music modes, transposition, cadences and non-harmonic tones, phrase structure, musical textures, and four-part voice leading. Prerequisite: MUSI1301 or consent of Instructor. 3 credit hours. (A)

**MUSI1312 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. Prerequisite: MUSI1311. 3 credit hours. (A)

**MUSI1386 Introduction to Composition**

Fundamentals of music composition including structural and formal composition techniques, computer-based musical notation, and basic MIDI sequencing. Prerequisite: MUSI1301. 3 credit hours. (A)

**MUSI2116 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: MUSI1117. 1 credit hour. (A)

Note: Student may take MUSI 2116 and MUSI 2117 for a combined total of no more than 4 credit hours.

#### **MUSI2117 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: MUSI2116. 1 credit hour. (A)

Note: Student may take MUSI2116 and MUSI2117 for a combined total of no more than 4 credit hours.

#### **MUSI2181 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. 1 credit hour. (A)

Note: Student may take MUSI1181, MUSI1182, MUSI2181, and MUSI2182 for a combined total of no more than 4 credit hours.

#### **MUSI2182 Beginning Piano IV**

Final course in Beginning Piano sequence; prepares music majors for piano barrier exams. Culmination of skills including scales and arpeggios four octaves hands together, advanced chord progressions, more difficult piano repertoire, and competency at sight reading. Lab required. Prerequisite: MUSI2181. 1 credit hour. (A)

Note: Student may take MUSI1181, MUSI1182, MUSI2181, and MUSI2182 for a combined total of no more than 4 credit hours.

#### **MUSI2183 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: MUSI1184 or consent of Instructor. 1 credit hour. (A)

Note: Student may take MUSI1183, MUSI1184, MUSI2183, and MUSI2184 for a combined total of no more than 4 credit hours.

#### **MUSI2184 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: MUSI2183 or consent of Instructor. 1 credit hour. (A)

Note: Student may take MUSI1183, MUSI1184, MUSI2183, and MUSI2184 for a combined total of no more than 4 credit hours.

#### **MUSI2192 Class Guitar III**

Continuation of MUSI1193. Development of two and three octave scales, intermediate guitar repertoire from Renaissance to 20th century music.

Prerequisite: MUSI1193. 1 credit hour. (A)

Note: Student may take MUSI1192, MUSI1193, MUSI2192, and MUSI2193 for a combined total of no more than 4 credit hours.

#### **MUSI2193 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.

Prerequisite: MUSI2192. 1 credit hour. (A)

Note: Student may take MUSI1192, MUSI1193, MUSI2192, and MUSI2193 for a combined total of no more than 4 credit hours.

#### **MUSI2311 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. Prerequisite: MUSI1312. 3 credit hours. (A)

#### **MUSI2312 Music Theory IV**

Music theory beginning with the extended harmonies of the Romantic era and continuing through 20th century formal processes and techniques.

Prerequisite: MUSI2311. 3 credit hours. (A)

#### **MUSI2389 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. (A)

#### **MUSP1104 Applied Commercial Music: Bass Guitar**

Private instruction in the bass guitar, with goals related to commercial music. Consists of one 100-minute lesson per week. Students must remain enrolled in three or more credit hours of Music courses (MUSB, MUSC, MUSI, MUSP) as well as one ensemble course. Students must also attend weekly Departmental recitals for the semester, and perform for a jury at the end of the semester. Lab required. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

Note: Students may take MUSP1104 to MUSP 1110, MUSP1117 to MUSP1127 and MUSP2230 to

MUSP2249 for a combined total of no more than 12 credit hours.

**MUSP1105 Applied Commercial Music:  
Commercial Guitar**

Private instruction in commercial guitar, with goals related to commercial music. Consists of one 100-minute lesson per week. Students must remain enrolled in three or more credit hours of Music courses (MUSB, MUSC, MUSI, MUSP) as well as one ensemble course. Students must also attend weekly Departmental recitals for the semester, and perform for a jury at the end of the semester. Lab required. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

Note: Students may take MUSP1104 to MUSP1110, MUSP1117 to MUSP1127 and MUSP2230 to MUSP2249 for a combined total of no more than 12 credit hours.

**MUSP1110 Applied Commercial Music:  
Piano**

Private instruction in piano, with goals related to commercial music. Consists of one 100-minute lesson per week. Students must remain enrolled in three or more credit hours of Music courses (MUSB, MUSC, MUSI, MUSP) as well as one ensemble course. Students must also attend weekly Departmental recitals for the semester, and perform for a jury at the end of the semester. Lab required. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

Note: Students may take MUSP1104 to MUSP1110, MUSP1117 to MUSP1127 and MUSP2230 to MUSP2249 for a combined total of no more than 12 credit hours.

**MUSP1113 Introductory Group Piano I**  
*Formerly MUSC1171*

Fundamentals of playing various accompaniment patterns with chords. Includes reading standard notation, basic scales, and learning introductory improvisational skills. Lab required. 1 credit hour. (W)

**MUSP1114 Introductory Group Piano II**  
*Formerly MUSC1172*

Continuation of playing various accompaniment patterns with chords. Includes reading standard notation, scales, and learning improvisational skills. Lab required. Prerequisite: MUSP1113 or consent of Instructor. 1 credit hour. (W)

**MUSP1117 Applied Commercial Music:  
Percussion**

Private instruction in percussion, with goals related to commercial music. Consists of one 100-minute

lesson per week. Students must remain enrolled in three or more credit hours of Music courses (MUSB, MUSC, MUSI, MUSP) as well as one ensemble course. Students must also attend weekly Departmental recitals for the semester, and perform for a jury at the end of the semester. Lab required. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

Note: Students may take MUSP1104 to MUSP1110, MUSP1117 to MUSP1127 and MUSP2230 to MUSP2249 for a combined total of no more than 12 credit hours.

**MUSP1127 Applied Commercial Music:  
Voice**

Private instruction in voice, with goals related to commercial music. Consists of one 100-minute lesson per week. Students must remain enrolled in three or more credit hours of Music courses (MUSB, MUSC, MUSI, MUSP) as well as one ensemble course. Students must also attend weekly Departmental recitals for the semester, and perform for a jury at the end of the semester. Lab required. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

Note: Students may take MUSP1104 to MUSP1110, MUSP1117 to MUSP1127 and MUSP2230 to MUSP2249 for a combined total of no more than 12 credit hours.

**MUSP1151 Small Commercial Music  
Ensemble: Recording**

Participation in a small recording ensemble concentrating on commercial music performance styles. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

Note: Student may take MUSP1151 and MUSP1153 for a combined total of no more than 8 credit hours.

**MUSP1153 Small Commercial Music  
Ensemble: Rock**

Participation in a rock ensemble concentrating on commercial music performance styles. Prerequisites: Audition and consent of Instructor. 1 credit hour. (W)

Note: Student may take MUSP1151 and MUSP1153 for a combined total of no more than 8 credit hours.

**MUSP1202 Introductory Group Voice**

Introduction to Speech Level Singing philosophy and technique with goals related to commercial voice. Emphasizes sight singing and harmony singing applicable to commercial background singing. Lab required. Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

**MUSP2230 Advanced Applied Commercial Music: Voice**

Advanced private instruction in voice, with goals related to commercial music. Consists of one 150-minute lesson per week. Students must remain enrolled in three or more credit hours of music courses (MUSB, MUSC, MUSI, MUSP) as well as one ensemble course. Students must also attend weekly Departmental recitals for the semester, and perform for a jury at the end of the semester.

Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

Note: Students may take MUSP1104 to MUSP 1110, MUSP1117 to MUSP1127 and MUSP2230 to MUSP2249 for a combined total of no more than 12 credit hours.

**MUSP2233 Advanced Applied Commercial Music: Bass Guitar**

Advanced private instruction in bass guitar, with goals related to commercial music. Consists of one 150-minute lesson per week. Students must remain enrolled in three or more credit hours of music courses (MUSB, MUSC, MUSI, MUSP) as well as one ensemble course. Students must also attend weekly Departmental recitals for the semester, and perform for a jury at the end of the semester.

Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

Note: Students may take MUSP1104 to MUSP 1110, MUSP1117 to MUSP1127 and MUSP2230 to MUSP2249 for a combined total of no more than 12 credit hours.

**MUSP2235 Advanced Applied Commercial Music: Piano**

Advanced private instruction in piano, with goals related to commercial music. Consists of one 150-minute lesson per week. Students must remain enrolled in three or more credit hours of music courses (MUSB, MUSC, MUSI, MUSP) as well as one ensemble course. Students must also attend weekly Departmental recitals for the semester, and perform for a jury at the end of the semester.

Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

Note: Students may take MUSP1104 to MUSP1110, MUSP1117 to MUSP1127 and MUSP2230 to MUSP2249 for a combined total of no more than 12 credit hours.

**MUSP2237 Advanced Applied Commercial Music: Commercial Guitar**

Advanced private instruction in commercial guitar, with goals related to commercial music. Consists of one 150-minute lesson per week. Students must remain enrolled in three or more credit hours of music

courses (MUSB, MUSC, MUSI, MUSP) as well as one ensemble course. Students must also attend weekly Departmental recitals for the semester, and perform for a jury at the end of the semester.

Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

Note: Students may take MUSP1104 to MUSP1110, MUSP1117 to MUSP1127 and MUSP2230 to MUSP2249 for a combined total of no more than 12 credit hours.

**MUSP2249 Advanced Applied Commercial Music: Percussion**

Advanced private instruction in percussion, with goals related to commercial music. Consists of one 150-minute lesson per week. Students must remain enrolled in three or more credit hours of music courses (MUSB, MUSC, MUSI, MUSP) as well as one ensemble course. Students must also attend weekly Departmental recitals for the semester, and perform for a jury at the end of the semester.

Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

Note: Students may take MUSP1104 to MUSP 1110, MUSP1117 to MUSP1127 and MUSP2230 to MUSP2249 for a combined total of no more than 12 credit hours.

**NANO1301 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)

**NURA1160 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. Corequisite: NURA 1301 or consent of Program Director. 1 credit hour. (W)

**NURA1301 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. Corequisite: NURA 1160 or consent of Program Director. 3 credit hours. (W)

**PHED1100 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. (A)

Note: 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.

**PHED1102 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. (A)

Note: 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.

**PHED1104 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. (A)

Note: 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.

**PHED1106 Walking and Fitness**

Improve cardiovascular fitness, muscle tone, and flexibility through a vigorous walking and conditioning program. 1 credit hour. (A)

Note: 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.

**PHED1111 Basketball**

Develops basic skills and strategies through knowledge of the history, rules, and terminology and through participation in game situations. 1 credit hour. (A)

Note: 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.

**PHED1112 Soccer**

Develops the basic skills and strategies through knowledge of the history, rules and terminology and

through participation in game situations. 1 credit hour. (A)

Note: 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.

**PHED1113 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. (A)

Note: 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.

**PHED1114 Volleyball**

Individual skills and techniques, application of rules and an introduction to offensive and defensive strategies are stressed. 1 credit hour. (A)

Note: 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.

**PHED1115 Archery**

Investigates the basic techniques, rules and scoring as well as the history and terminology of archery. 1 credit hour. (A)

Note: 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.

**PHED1116 Badminton**

History, rules, basic strokes and strategies in singles and doubles play are emphasized through intra-class competition. 1 credit hour. (A)

Note: 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.

**PHED1117 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. (A)

Note: 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.

**PHED1118 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. (A)

Note: 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.

### **PHED1120 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. (A)

Note: 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.

### **PHED1121 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. (A)

Note: 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.

### **PHED1123 Beginning Golf**

Stresses basic skills, history, terminology and scoring of golf. 1 credit hour. (A)

Note: 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.

### **PHED1124 Intermediate Golf**

Develops advanced skill techniques and strategies of golf. 1 credit hour. (A)

Note: 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.

### **PHED1125 Bowling**

Teaches ball selection, stance, four-step approach, rules, and scoring procedures. Emphasis on game situations. 1 credit hour. (A)

Note: 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.

### **PHED1126 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. (A)

Note: 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.

### **PHED1127 Beginning Karate**

Introduction to basic techniques, formal exercises, and sparring techniques for the beginner. 1 credit hour. (A)

Note: 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.

### **PHED1129 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. (A)

Note: 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.

### **PHED1130 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. (A)

Note: 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.

### **PHED1131 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. (A)

Note: 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.

### **PHED1133 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. (A)

Note: 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.

**PHED1136 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. (A)

Note: 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.

**PHED1137 Swimming Conditioning**

Fitness level is improved through swimming strokes and water exercises. Different swimming programs enhance muscular strength, endurance and cardiovascular fitness. Prerequisite: Consent of Instructor. 1 credit hour. (A)

Note: 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.

**PHED1140 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. (A)

Note: 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.

**PHED1147 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. (A)

Note: 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.

**PHED1148 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. (A)

Note: 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.

**PHED1253 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. (A)

**PHED1301 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. (A)

Note: Does not satisfy the PHED/DANC activity core requirement.

**PHED1304 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. (A)

Note: Does not satisfy the PHED/DANC activity core requirement.

**PHED1306 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. (A)

Note: Does not satisfy the PHED/DANC activity core requirement.

**PHED1336 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. (A)

Note: Does not satisfy the PHED/DANC activity core requirement.

**PHED1337 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. (A)

Note: Does not satisfy the PHED/DANC activity core requirement.



**PHED1338 Concepts of Physical Fitness  
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. (A)

**PHIL1301 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**PHIL1304 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**PHIL1316 History of World Religions I-  
Eastern Religions**

This course is designed to introduce students to a historical study of Hinduism, Buddhism, and the religions of China, Japan and other Asian countries. In addition to the history of these religions, beliefs and practices of the principal religions will be topics of discussion. The course will provide students with a condensed introduction to Asian civilizations as students explore the complex interaction of religion and society throughout this region of the world. Assessment: Placement in College-Level Reading. 3 credit hours. (A)

**PHIL1317 History of World Religions II-  
Western Religions**

This course is designed to introduce students to a historical study of western religions; emphasis will be placed on Judaism, Christianity and Islam, and other religions found in the West. Students will be introduced not only to the historical developments and inter-relations between these religions, but also the beliefs and practices of these religions. Assessment: Placement in College-Level Reading. 3 credit hours. (A)

**PHIL2303 Introduction to Logic**

Symbolic and informal logic; emphasis on logical argument, fallacies, inductive and deductive proof, and correct reasoning. Assessment: Placement in

ENGL1301; College-Level Reading. 3 credit hours. (A)

**PHIL2306 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**PHIL2307 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**PHIL2321 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**PHTC1300 Photo Digital Imaging I**

An introduction to computer and software instruction for electronic imaging. Includes color, gray scale, image conversion, presentation, and ethics. Lab required. Prerequisite: ARTS2356 or PHTC1311. 3 credit hours. (W)

**PHTC1311 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)

**PHTC1341 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: ARTS2356 or PHTC1311. 3 credit hours. (W)

**PHTC1343 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: ARTS2356 or PHTC1311. 3 credit hours. (W)

**PHTC1345 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. Prerequisite: ARTS2356 or PHTC1311. 3 credit hours. (W)

**PHTC1347 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: ARTS2356 or PHTC1311. 3 credit hours. (W)

**PHTC1351 Photojournalism I**

Presentation of photographic techniques used by photojournalists in newspapers, magazines, trade publications and digital media to include news, feature, sports, editorial portraits, and photo essays. Includes a study of layout design and the freelance market. Lab required. Prerequisite: ARTS2356 or PHTC1311. 3 credit hours. (W)

**PHTC1353 Portraiture I**

Skill development in the photographic principles of portrait lighting, posing 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: ARTS2356 or PHTC1311. 3 credit hours. (W)

**PHTC2331 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: ARTS2356 or PHTC1311. 3 credit hours. (W)

**PHTC2340 Photographic Studio Management**

In-depth study of photography business management, pricing, market analysis, promotion, networking, job acquisition, and photographic equipment analysis. Lab required. Prerequisite: ARTS2356 or PHTC1311. 3 credit hours. (W)

**PHTC2341 Color Photography II**

Advanced skill development in color image production. Emphasis on use of specialized color techniques and applications. Lab required. Prerequisite: PHTC1341. 3 credit hours. (W)

**PHTC2342 Fashion Photography**

Skill development in fashion photography in terms of trends and techniques included in studio and location work. Emphasizes model direction and lighting control. Lab required. Prerequisite: ARTS2356, or PHTC1311. 3 credit hours. (W)

**PHTC2343 Portfolio Development**

A culmination experience for the evaluation of the student's photographic competencies. Includes association with a professional photographic organization, skills in resume creation, completion of portfolio, professional self-presentation, comprehensive exam, and seminars in areas of photographic interest. Lab required. Prerequisites: Completed a minimum of 9 credit hours of PHTC courses, or consent of Department Chair. 3 credit hours. (W)

**PHTC2349 Photo Digital Imaging II**

Advanced concepts in the use of the computer and software for photographic manipulation and output. Lab required. Prerequisite: PHTC1300. 3 credit hours. (W)

**PHTC2353 Portraiture II**

Advanced concepts in the study of principles of effective portraiture with specific emphasis on unique presentation and environmental and location studies. Lab required. Prerequisite: PHTC1353. 3 credit hours. (W)

**PHYS1401 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. Assessment: Placement in MATH2312; College-Level Reading. Prerequisites: High school pre-calculus or equivalent within the last five years with a grade of "C" or better. 4 credit hours.

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

**PHYS1402 General Physics II**

A continuation of PHYS1401. Includes electricity, magnetism, light, optics, relativity and atomic physics. Lab required. Prerequisite: PHYS1401

within the last five years with a grade of "C" or better. 4 credit hours.

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **PHYS1403 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. Assessment: Placement in MATH0310; College-Level Reading. 4 credit hours. (A)

### **PHYS1404 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. Assessment: Placement in MATH0310; College-Level Reading. 4 credit hours. (A)

### **PHYS1405 Conceptual Physics**

This course presents concepts of classical and modern physics with application to biology and health sciences. What students should bring to this course is curiosity about how the world works. Intended for liberal arts, health science, or any majors. Lab required. Assessment: Placement in MATH 0310, College-Level Reading. 4 credit hours. (A)

### **PHYS1410 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. Assessment: Placement in MATH0310; College-Level Reading. 4 credit hours. (A)

### **PHYS1415 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. Assessment:

Placement in MATH0310; College-Level Reading. 4 credit hours. (A)

### **PHYS1417 Physical Science II**

Investigation of topics in physics, chemistry, geology, and meteorology in the context of a one-semester astronomy course. Topics will include: Celestial measurement of time, calendars, and seasons; geology and meteorology of the Earth, Moon, and planets; Chemistry and physics of stars and galaxies; and the interdisciplinary question of life beyond Earth. Laboratory exercises and night observations combine to enhance lecture material. Lab required. Assessment: Placement in MATH0310; College-Level Reading. 4 credit hours. (A)

### **PHYS2389 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. (A)

### **PHYS2425 University Physics I**

Lecture: Fundamental principles of physics, using calculus, for science, computer science, and engineering majors; the principles and applications of classical and modern mechanics, including harmonic motion, physical systems, and the laws of thermodynamics; emphasis on problem solving. Lab: Basic laboratory experiments supporting theoretical principles presented in the lecture section involving the principles and applications of classical mechanics, including harmonic motion and physical systems; experimental design, data collection and analysis, and preparation of laboratory reports. Lab required. Prerequisite: MATH2413 within the last five years with a grade of "C" or better. Prerequisite/Concurrent enrollment: MATH2414. 4 credit hours. (A)  
Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **PHYS2426 University Physics II**

Lecture: Principles of physics for science, computer science, and engineering majors, using calculus, involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, optics, and modern physics. Lab: Laboratory experiments supporting theoretical principles presented in the lecture section involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics; experimental design, data collection and analysis, and preparation of laboratory reports. Lab

required. Prerequisites: MATH2414 and PHYS2425 within the last five years with a grade of "C" or better. 4 credit hours. (A)

Note: This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Contact the Natural Sciences Department for further information.

### **PLAB1323 Phlebotomy**

Skill development in the performance of a variety of blood collection methods using proper techniques and standard precautions. Includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, patient identification, specimen labeling, quality assurance, specimen handling, processing, accessioning, professionalism, ethics, and medical terminology. Lab required. Prerequisite: Current Healthcare Provider Cardiopulmonary Resuscitation (CPR) Certification from American Heart Association (AHA). Corequisite: PLAB1360. 3 credit hours. (W)

### **PLAB1360 Clinical - Phlebotomy**

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: Current Healthcare Provider Cardiopulmonary Resuscitation (CPR) Certification for American Heart Association (AHA). Corequisite: PLAB1323. 3 credit hours. (W)

### **POFI1301 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: POFT2301 or consent of Department Faculty Contact. 3 credit hours. (W)

### **POFI2301 Word Processing-MS Word**

Word processing software focusing on business applications. Prerequisite: POFT1329 or POFT2301 or consent of Department Faculty Contact. 3 credit hours. (W)

### **POFI2331 Desktop Publishing for the Office-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: POFI2301 or consent of Department Faculty Contact. 3 credit hours. (W)

### **POFL1359 Legal Transcription**

This course presents legal transcription techniques. Prerequisite: POFI2301 or POFT2301 or consent of Department Faculty Contact. 3 credit hours. (W)

### **POFL1380 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)

### **POFM1300 Medical Coding Basics**

Presentation and application of basic coding rules, principles, guidelines, and conventions utilizing various coding systems. Lab required. Prerequisite/Concurrent enrollment: SRGT1301. 3 credit hours. (W)

### **POFM1380 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)

### **POFT1127 Introduction to Keyboarding**

Skill development in keyboarding techniques. Emphasis on the development of acceptable speed and accuracy. 1 credit hour. (W)

### **POFT1307 Proofreading and Editing**

Instruction in proofreading and editing skills necessary to assure accuracy in business documents. Prerequisite: POFT1127 or POFT1329 or POFT2301 or consent of Department Faculty Contact. 3 credit hours. (W)

### **POFT1319 Records and Information Management I**

Introduction to basic records information management filing systems including manual and electronic filing. Prerequisite: POFT1127 or POFT1329 or POFT2301 or consent of Department Faculty Contact. 3 credit hours. (W)

**POFT1329 Beginning Keyboarding**

Skill development of keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. 3 credit hours. (W)

**POFT1349 Administrative Office Procedures II**

In-depth coverage of office procedures with 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: POFI2301 or POFT2301 or consent of Department Faculty Contact. 3 credit hours. (W)

**POFT1380 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)

**POFT2203 Speed and Accuracy Building**

Review, correct, and improve keyboarding techniques for the purpose of increasing speed and improving accuracy. Prerequisite: POFT1127 or POFT1329 or POFT2301 or consent of Department Faculty Contact. 2 credit hours. (W)

**POFT2301 Intermediate Keyboarding**

A continuation of keyboarding skills emphasizing acceptable speed and accuracy levels and formatting documents. Prerequisite: POFT1329 or consent of Department Faculty Contact. 3 credit hours. (W)

**POFT2312 Business Correspondence and Communication**

Development of writing and presentation skills to produce effective business communications. Prerequisite: POFI1301 or POFI2301 or POFT1329 or POFT2301 or consent of Department Faculty Contact. 3 credit hours. (W)

**POFT2380 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)

**PSTR1301 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. 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.

**PSTR1305 Breads and Rolls**

Concentration on fundamentals of chemically and yeast raised breads and rolls. Instruction on commercial preparation of a wide variety of products. Professional chef uniform and kitchen tools required. Lab required. Prerequisites: CHEF1305 with a grade of "C" or better and PSTR1301 with a grade of "C" or better. 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.

**PSTR1306 Cake Decorating I**

Introduction to skills, concepts and techniques of cake decorating. Professional chef uniform and kitchen tools required. Lab required. Prerequisites: CHEF1305 with a grade of "C" or better and PSTR1301 with a grade of "C" or better. 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

**PSTR1310 Pies, Tarts, Teacakes, and Cookies**

Focus on preparation of American and European style pie and tart fillings and dough, cookies, teacakes, custard and batters. Instruction in finishing and presentation techniques. Professional chef uniform and kitchen tools required. Lab required. Prerequisites: CHEF1305 with a grade of "C" or better and PSTR1301 with a grade of "C" or better. 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.

### **PSTR1312 Laminated Dough, Pate a Choux, and Donuts**

Focus on preparation of laminated dough to include puff pastry, croissant, and Danish and a variety of pate a choux (éclair paste) products and donuts. Fillings and finishing techniques included. Professional chef uniform and kitchen tools required. Lab required. Prerequisites: CHEF1305 with a grade of “C” or better and PSTR1301 with a grade of “C” or better. 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.

### **PSTR1340 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. Lab required. Prerequisites: CHEF1305 with a grade of “C” or better and PSTR1301 with a grade of “C” or better. 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.

### **PSTR1380 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)

### **PSTR1391 Special Topics in Baker/Pastry Chef**

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)

#### **Allergy Free and Special Dietary Baking**

Focus on adapted recipes and testing recipes to accommodate special dietary needs.

Prerequisites: CHEF 1305, IFA 1310, and PSTR 1301

### **PSTR2301 Chocolates and Confections**

Production and decoration of traditional truffles, marzipan, molded and hand-dipped chocolate, caramels, nougats, and pate de fruit. Professional chef uniform and kitchen tools required. Lab required. Prerequisites: CHEF1305 with a grade of “C” or better and PSTR1301 with a grade of “C” or better. 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.

### **PSTR2307 Cake Decorating II**

A course in decoration of specialized and seasonal products. Professional chef uniform and kitchen tools required. Lab required. Prerequisite: PSTR1306. 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.

### **PSTR2331 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. Lab required. Prerequisites: CHEF1305 with a grade of “C” or better and PSTR1301 with a grade of “C” or better. 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 2350 Wedding Cakes**

Skills, concepts, and techniques for preparing wedding cakes. Includes marzipan, plastic chocolate-rolled fondant, chocolate garnish, flower making, and royal icing piping work. Prerequisites: PSTR 1306 and PSTR 2307. 3 credit hours. (W)

### **PSTR2380 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. Prerequisites: CHEF1305 with a grade of "C" or better, PSTR1301 with a grade of "C" or better, and completion of 9 credit hours in the major core of PSTR. 3 credit hours. (W)

### **PSYC2301 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **PSYC2302 Applied Psychology**

Application of psychological principles to human relations issues in organizational settings. Emphasis on self-understanding, interpersonal relations, and career development. Assessment: Placement in ENGL1301. 3 credit hours. (A)

### **PSYC2306 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

Note: Students may take either PSYC 2306 or SOCI2306 but not both.

### **PSYC2314 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. Assessment: Placement in ENGL1301; College-Level Reading. Prerequisite: PSYC2301. 3 credit hours. (A)

### **PSYC2315 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **PSYC2316 Psychology of Personality**

In-depth study of theories of personality with practical application of each. Methods of personality measurement and assessment are also included.

Assessment: Placement in ENG 1301; College-Level Reading. Prerequisite: PSYC2301. 3 credit hours. (A)

### **PSYC2319 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. Assessment: Placement in ENGL1301. 3 credit hours. (A)

### **PSYC2371 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. Assessment: Placement in ENGL1301. 3 credit hours. (A)

Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

### **PSYC2372 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. Assessment: Placement in ENGL1301. Prerequisite: PSYC2301. 3 credit hours. (A)

Note: This academic course has limited transferability at this time. Check with an advisor at your transfer institution.

### **PSYC2389 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. Assessment: Placement in ENGL1301. Prerequisite: Consent of Instructor. 3 credit hours. (A)

### **RBTC1305 Robotic Fundamentals**

An introduction to flexible automation. Topics include installation, repair, maintenance, and development of flexible robotic manufacturing systems. 3 credit hours. (W)

### **READ0300 Developmental Reading I**

Raises the reading level of students through the acquisition of basic vocabulary and comprehension

skills. Lab required. Assessment: Placement in READ0300. 3 credit hours. (D)

Note: Developmental courses may be taken for a combined total of no more than 27 credit hours.

**READ0305 Developmental Reading II**

Offers additional instruction in developing vocabulary and comprehension skills. Effective study skills are introduced. Lab required. Assessment: Placement in READ0305. Prerequisite: READ0300. 3 credit hours. (D)

Note: Developmental courses may be taken for a combined total of no more than 27 credit hours.

**READ0310 Developmental Reading III**

Seeks to further improve student's vocabulary, comprehension and study skills. Lab required.

Assessment: Placement in READ0310. Prerequisite: READ0305. 3 credit hours. (D)

Note: Developmental courses may be taken for a combined total of no more than 27 credit hours.

**RELE1301 Principles of Real Estate I**

A beginning 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)

**RELE1303 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)

**RELE1307 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)

**RELE1309 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)

**RELE1311 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)

**RELE1315 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)

**RELE1319 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, Community Reinvestment Act, and the state housing agency. 3 credit hours. (W)

**RELE1321 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)

**RELE1325 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)

**RELE1327 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)

**RELE1338 Principles of Real Estate II**

A continuing 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)

### **RELE1380 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)

### **RELE2301 Law of Agency**

A study of law of agency including principal-agent and master-servant relationships, the authority of an agent, the termination of an agent's authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying procedures, and the disclosure of an agency. 3 credit hours. (W)

### **RELE2331 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)

### **RELE2381 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)

### **RNSG1219 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: RNSG1360 and RNSG1523, or consent of Program Director. 2 credit hours. (A)

### **RNSG1227 Transition from Vocational / 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. Major Requirement: AAS-Nursing. 2 credit hours. (W)

### **RNSG1229 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. Lab required. Prerequisite: RNSG1219, RNSG1360, and RNSG1523, or consent of Program Director. Corequisite: RNSG1461 and RNSG2504, or consent of Program Director. Major Requirement: AAS-Nursing. 2 credit hours. (A)

### **RNSG1360 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. Corequisite: RNSG1219 and RNSG1523, or consent of Program Director. Major Requirement: AAS-Nursing. 3 credit hours. (A)

### **RNSG1461 Clinical II-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. 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: RNSG1219, RNSG1360 and RNSG1523, or consent of Program Director. Corequisites: RNSG1229 and RNSG2504, or consent of Program Director. Major Requirement: AAS-Nursing. 4 credit hours. (A)

### **RNSG1523 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: RNSG1219 and RNSG1360, or consent of Program Director. Major Requirement: AAS-Nursing. 5 credit hours. (A)

### **RNSG2207 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: RNSG1219, RNSG1229, RNSG1360, RNSG1461, RNSG1523, RNSG2460, RNSG2504, and RNSG2514. Corequisites: RNSG2535 and RNSG2561, or consent of Program Director. Major Requirement: AAS-Nursing. 2 credit hours. (W)

### **RNSG2460 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: RNSG1219, RNSG1229, RNSG1360, RNSG1461, RNSG1523, and RNSG2504. Corequisite: RNSG2514 or consent of Program Director. Major Requirement: AAS-Nursing. 4 credit hours. (A)

### **RNSG2504 Integrated Care of the Client with Common Health Care Needs**

Application of a systematic problem-solving process and critical thinking skills to provide nursing care to diverse clients/families across the 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: RNSG1219, RNSG1360, and RNSG1523. Corequisites: RNSG1229 and RNSG1461, or consent of Program Director. Major Requirement: AAS-Nursing. 5 credit hours. (A)

### **RNSG2514 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: RNSG1219, RNSG1229, RNSG1360, RNSG1461, RNSG1523, and RNSG2504. Corequisite: RNSG2460, or consent of Program Director. Major Requirement: AAS-Nursing. 5 credit hours. (W)

### **RNSG2535 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: RNSG1219, RNSG1229, RNSG1360, RNSG1461, RNSG1523, RNSG2461, RNSG2504, and RNSG2514. Corequisites: RNSG2207 and RNSG2561, or consent of Program Director. Major Requirement: AAS-Nursing. 5 credit hours. (W)

### **RNSG2561 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: RNSG1360, RNSG1461, RNSG2460 and RNSG2514. Corequisites: RNSG2207 and RNSG2535 or consent of Program Director. Major Requirement: AAS-Nursing. 5 credit hours. (A)

### **RSPT1160 Clinical I-Respiratory Care 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: Consent of Program Director. Corequisite: Consent of Program Director. Major Requirement: AAS-Respiratory Care. 1 credit hour. (W)

### **RSPT1201 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). Lab required. Prerequisite: Admission to the Respiratory Care Program. Corequisites: RSPT1307 and RSPT1410. Major Requirement: AAS-Respiratory Care. 2 credit hours. (W)

### **RSPT1307 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. Major Requirement: AAS-Respiratory Care. 3 credit hours. (W)

### **RSPT1361 Clinical II-Respiratory Care 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: RSPT1160. Major Requirement: AAS-Respiratory Care. 3 credit hours. (W)

### **RSPT1362 Clinical III-Respiratory Care 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: RSPT1361. Major Requirement: AAS-Respiratory Care. 3 credit hours. (W)

### **RSPT1410 Respiratory Care Procedures I**

Essential knowledge of the equipment and techniques used in the treatment of cardiopulmonary disease. Contents areas include: oxygen therapy, humidity and aerosol therapy, lung expansion therapy, bronchial hygiene therapy, pulse oximetry, arterial blood gas sampling, and interpretation. Lab required. Prerequisite: Admission to the Respiratory Care Program. Major Requirement: AAS-Respiratory Care. 4 credit hours. (W)

**RSPT1411 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: RSPT1410. Major Requirement: AAS-Respiratory Care. 4 credit hours. (W)

**RSPT2130 Respiratory Care Examination Preparation**  
Comprehensive review to optimize respiratory care credentialing exam success. Lab required. Prerequisites: RSPT2255, RSPT2353, and RSPT2360. Corequisites: RSPT2139, RSPT2231, RSPT2247, and RSPT2361. Major Requirement: AAS-Respiratory Care. 1 credit hour. (W)

**RSPT2139 Advanced Cardiac Life Support**  
Advanced Cardiac Life Support (ACLS) with an emphasis on airway management. Designed to develop skills for resuscitation of the adult. Includes strategies for managing and stabilizing the cardiopulmonary arrested patient. May include certification. Prerequisites: RSPT2255 and RSPT2471. Corequisites: RSPT2130, RSPT2231, RSPT2247, and RSPT2361. Major Requirement: AAS-Respiratory Care. 1 credit hour. (W)

**RSPT2217 Respiratory Care Pharmacology**  
A study of drugs that affect cardiopulmonary systems. Emphasis on classifications, route of administration, dosages and calculations, and physiological interactions. Prerequisites: RSPT1160, RSPT1201, RSPT1307, and RSPT1410. Corequisites: RSPT1361, RSPT1411, and RSPT2310. Major Requirement: AAS-Respiratory Care. 2 credit hours. (W)

**RSPT2231 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: RSPT2255. Major Requirement: AAS-Respiratory Care. 2 credit hours. (W)

**RSPT2247 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: RSPT2353. Major Requirement: AAS-Respiratory Care. 2 credit hours. (W)

**RSPT2255 Critical Care Monitoring**  
Advanced monitoring techniques used clinically to assess a patient in the critical care setting. Lab required. Prerequisites: RSPT1362 and RSPT2471. Corequisites: RSPT2353 and RSPT2360. Major Requirements: AAS-Respiratory Care. 2 credit hours. (W)

**RSPT2310 Cardiopulmonary Disease**  
Etiology, pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. Lab required. Prerequisites: RSPT1307 and RSPT1410. Corequisites: RSPT1361, RSPT1411, and RSPT2217. Major Requirement: AAS-Respiratory Care. 3 credit hours. (W)

**RSPT2353 Neonatal/Pediatric Cardiopulmonary Care**  
Advanced study of acute care, monitoring, and management of the neonatal/pediatric patient. Lab required. Prerequisites: RSPT1362 and RSPT2471. Corequisites: RSPT2255 and RSPT2360. Major Requirement: AAS-Respiratory Care. 3 credit hours. (W)

**RSPT2355 Critical Care Monitoring**  
Advanced monitoring techniques used to assess a patient in the critical care setting. Prerequisite: RSPT2471 (or RSPT1471). Major Requirement: AAS Respiratory Care. 3 credit hours. (W)

**RSPT2360 Clinical IV-Respiratory Care 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: RSPT1362. Major Requirement: AAS-Respiratory Care. 3 credit hours. (W)

**RSPT2361 Clinical V-Respiratory Care 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:

RSPT2360. Corequisite: BIOL2421 or consent of Program Director. Major Requirement: AAS-Respiratory Care. 3 credit hours. (W)

**RSPT2453 Neonatal/Pediatric  
Cardiopulmonary Care**

A study of acute care, monitoring, and management of the neonatal and pediatric patient. Lab required. Prerequisite: RSPT2471 (or RSPT1471). Major Requirement: AAS Respiratory Care. 4 credit hours. (W)

**RSPT2471 Respiratory Care Procedures III**

Provides essential knowledge of advanced mechanical ventilation concepts, critical care assessment, quality control, and basic neonatal/pediatric assessment. Advanced mechanical ventilation concepts include: methods of weaning, advanced modes, and methods of non-invasive ventilation. Critical care assessment includes: basic ECG interpretation and chest tube drainage systems. Quality control includes: maintenance of ABG analyzers. Neonatal/Pediatric assessment includes: APGAR scoring, gestational age assessment, Silverman score, vital signs, and pediatric assessment methods. Lab required. Prerequisite: RSPT1411. Corequisite: RSPT1362. Major Requirement: AAS-Respiratory Care. 4 credit hours. (W)

**RSTO1301 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)

**RSTO1304 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: CHEF1314. 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.

**RSTO1325 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)

**RSTO1380 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)

**RSTO2307 Catering**

Principles, techniques, and applications for both on-premises, off-premises, and group marketing of catering operations including food preparation, holding, and transporting techniques. Lab required. 3 credit hours. (W)

**RTVB1329 Scriptwriting**

Writing scripts for film and electronic media. Emphasizes format and style for commercials, public service announcements, promos, news, and documentaries. Lab required. Assessment: Placement in ENGL1301 and College-Level Reading. 3 credit hours. (W)

**RUSS1411 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. (A)

**RUSS1412 Beginning Russian II**

Continuation of RUSS1411. Prerequisite: RUSS1411 or consent of Instructor or Department Chair. 4 credit hours. (A)

**RUSS2311 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: RUSS1412 or consent of Instructor or Department Chair. 3 credit hours. (A)

**RUSS2312 Intermediate Russian II**

Continuation of RUSS2311. Instruction enhanced by slides, tapes, and other audio-visual aids.

Prerequisite: RUSS2311 or consent of Instructor or Department Chair. 3 credit hours. (A)

**SGNL1401 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. (A)

**SGNL1402 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: SGNL1401 or credit by exam. 4 credit hours. (A)

**SGNL2301 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: SGNL1402 or credit by exam. 3 credit hours. (A)

**SGNL2302 American Sign Language (ASL):  
Intermediate II**

Continuation of SGNL2301; 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: SGNL2301 or credit by exam. 3 credit hours. (A)

**SLNG1311 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: SGNL1402. 3 credit hours. (W)

**SLNG1321 Introduction to the Interpreting  
Profession**

An overview of the field of American Sign Language (ASL)/English interpretation. Provides a historical framework for the current principles, ethics, roles, responsibilities, and standard practices of the interpreting profession. Lab required.

Prerequisite/Concurrent enrollment: SGNL2302. 3 credit hours. (W)

**SLNG1347 Deaf Culture**

*Formerly SLNG1447*

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. 4 credit hours. (W)

**SLNG2266 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: SLNG2301. 2 credit hours. (W)

**SLNG2267 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: SLNG2266 and SLNG2311 or SLNG2331. 2 credit hours. (W)

**SLNG2301 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: SLNG1321. 3 credit hours. (W)

### **SLNG2311 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: SLNG2301. 3 credit hours. (W)

### **SLNG2331 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: SLNG2301 or SLNG2311, or state or national interpreter certification. 3 credit hours. (W)

### **SLNG2403 Transliterating**

A practice-oriented course designed to develop skills necessary for rendering spoken English to a signed English format and signed English to spoken English. Lab required. Prerequisites: ENGL1302, SGNL2301 and SLNG2301. 4 credit hours. (W)

### **SMFT1343 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)

### **SMFT1370 Introduction to Silicon Solar Cell Engineering**

The chemistry, device physics, and materials science of Photovoltaic Solar Cell technology which results in the production of electricity from sunlight is covered. An overview of the process flows used to manufacture solar cells, the resulting device characteristics, the variety of solar cell structures and the solid state electronics characterization of the structures is presented. The course is taught from an operations perspective using an appropriate level of mathematics for comprehension. Lab required. 3 credit hours. (W)

### **SMFT1372 Introduction to Silicon Solar Cell Manufacturing**

The course covers the fundamentals of silicon Photovoltaic Solar Cell fabrication from ingot to the final solar cell array. The basic chemistry, physics, and materials science of the fabrication process is presented. The course is taught from an operations perspective using an appropriate level of mathematics for comprehension. Lab required. 3 credit hours. (W)

### **SMFT1374 Introduction to Materials Technology, Measurement Technology and Characterization Methods used in Semiconductor Solar Cell Manufacturing**

The course will include an in-depth coverage of materials measurement techniques, statistical process control/capability analysis, six sigma process characterization, and FEMA from the perspective of Photovoltaic Solar Cell materials characterization, electrical characterization and optical characterization technology and techniques. The course is taught from an operations perspective using an appropriate level of mathematics for comprehension. Lab required. Prerequisites: SMFT1370 and SMFT1372, or consent of Program Director. 3 credit hours. (W)

### **SMFT1471 Fundamentals of Solar Cell Engineering**

The chemistry, device physics, and materials science of Photovoltaic Solar Cell technology which results in the production of electricity from sunlight is covered. An overview of the process flows used to manufacture solar cells, the resulting device characteristics, the variety of solar cell structures and the solid state electronics characterization of the structures is presented. The course is taught from an engineering perspective using an appropriate level of

mathematics for the engineering models presented. Lab required. Prerequisite: MATH1314 or Consent of Program Director. 4 credit hours. (W)

**SMFT1473 Fundamentals of Solar Cell Manufacturing**

The course covers the fundamentals of Photovoltaic Solar Cell fabrication from ingot to the final solar cell array. The basic chemistry, physics, and materials science of the fabrication process is presented. The course is taught from an engineering perspective using an appropriate level of mathematics for the engineering models presented. Lab required. Prerequisite: MATH1314 or Consent of Program Director. 4 credit hours. (W)

**SMFT1475 Materials Technology, Measurement Technology and Characterization Methods used in Semiconductor Solar Cell Manufacturing**

The course will include an in-depth coverage of materials measurement techniques, statistical process control/capability analysis, six sigma process characterization, and FEMA from the perspective of Photovoltaic Solar Cell materials characterization, electrical characterization and optical characterization technology and techniques. The course is taught from an engineering perspective using an appropriate level of mathematics for the engineering models presented. Lab required. Prerequisites: SMFT1471 and SMFT1473, or consent of Program Director. 4 credit hours. (W)

**SMFT2343 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: SMFT1343 or consent of Instructor or Program Director. 3 credit hours. (W)

**SMFT2370 Semiconductor Solar Cell Manufacturing Facilities, Methods and Safety**

The course describes the facilities in which semiconductor solar cells are manufactured and the requirements for cleanliness in the facilities. The materials used to fabricate solar cells are described along with the safety implications of utilizing these materials. Methods of manufacturing work flow and the facilitation/use of vacuum systems, continuous flow fabrication systems and industrial test equipment are discussed in detail. Lab required. 3 credit hours. (W)

**SMFT2379 Advanced Topics in Solar Cell Design**

The course reviews current advanced topics in solar cell design from the current literature, current conference records and current workshops. Relationships between the customary approaches in production and the advanced designs are sought and are rendered. Discussions of the production worthiness of the advanced designs result in technical assessment of the design's worthiness for fabrication and a cost benefit analysis. Lab required. Prerequisite: MATH2413 or consent of Program Director. 3 credit hours. (W)

**SMFT2471 Advanced Solar Cell Design and Engineering**

In-depth coverage of advanced semiconductor solar cell structures incorporated in industrial production today, in process development for tomorrow and in the feasibility and concept phase for the future. Lab required. Prerequisite: MATH2413 or consent of Program Director. 4 credit hours. (W)

**SOCI1301 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

**SOCI1306 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. Assessment: Placement in ENGL1301. 3 credit hours. (A)

**SOCI2301 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. Assessment: Placement in ENGL1301. 3 credit hours. (A)

**SOCI2306 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. Assessment: Placement



in ENGL 1301; College-Level Reading. 3 credit hours. (A)

Note: Student may take either PSYC2306 or SOCI2306 but not both.

### **SOCI2319 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **SOCI2340 Drug Use and Abuse**

Study of the use and abuse of drugs in today's society with emphasis on the physiological, psychological, and sociological factors that contribute to this behavior. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **SOCI2389 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. Assessment: Placement in ENGL1301. Prerequisite: Consent of Instructor. 3 credit hours. (A)

### **SOCW2361 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). Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **SOCW2362 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. Assessment: Placement in ENGL1301; College-Level Reading. Prerequisite/Concurrent enrollment: SOCW2361. 3 credit hours. (A)

### **SPAN1300 Conversational Spanish I**

Intensive practice in spoken Spanish. Prerequisite: SPAN1412 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **SPAN1310 Conversational Spanish II**

Continuation of Spanish 1300. Prerequisite: SPAN1300 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **SPAN1411 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. (A)

### **SPAN1412 Beginning Spanish II**

Continuation of SPAN1411. Prerequisite: SPAN1411 or consent of Instructor or Department Chair. 4 credit hours. (A)

### **SPAN2311 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: SPAN1412 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **SPAN2312 Intermediate Spanish II**

Extensive written and oral work and extensive reading of literary works in Spanish of moderate difficulty. Prerequisite: SPAN2311 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **SPAN2313 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: SPAN1412 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **SPAN2315 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: SPAN2313 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **SPAN2321 Spanish Literature I**

Study of Spanish literature from its origin to 700. Lectures, discussions, and reading of major literary works with some attention to historical contexts.

Prerequisite: SPAN2312 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **SPAN2322 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: SPAN2312 or consent of Instructor or Department Chair. 3 credit hours. (A)

### **SPCH1144 Forensic Activities I**

This course consists of laboratory/practicum experience for students who participate in the preparation of forensic activities. 1 credit hour. (A)

### **SPCH1311 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **SPCH1315 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **SPCH1318 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **SPCH1321 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **SPCH2335 Argumentation and Debate**

This course introduces the students to various argumentation techniques. The student will learn

basic research skills and methods of cataloging evidence. The student will learn to organize and present ideas in effective communication paradigms. Individual debate and team formats will be demonstrated. 3 credit hours. (A)

### **SPCH2389 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. Assessment: Placement in ENGL1301; College-Level Reading. 3 credit hours. (A)

### **SRGT1160 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: SRGT1409, or consent of Program Director. Major Requirement: AAS-Surgical Technology. 1 credit hour. (W)

### **SRGT1161 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: SRGT1160 and SRGT1409. Corequisite: SRGT1541, or consent of Program Director. Major Requirement: AAS-Surgical Technology. 1 credit hour. (W)

### **SRGT1171 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: SRGT1542 and SRGT2260. Corequisites: SRGT2130 and SRGT2361, or consent of Program Director. Major Requirement: AAS-Surgical Technology. 1 credit hour. (W)

### **SRGT1301 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 professions. 3 credit hours. (W)

**SRGT1409 Fundamentals of Peri-operative Concepts and Techniques**

In-depth coverage of peri-operative concepts such as aseptic/sterile 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: HPRS2201, and SRGT1160, or consent of Program Director. Major Requirement: AAS-Surgical Technology. 4 credit hours. (W)

**SRGT1541 Surgical Procedures I**

Introduction to surgical procedures and related pathologies. Emphasis on surgical procedures related to the general, obstetrics/gynecology, genitourinary, otorhinolaryngology, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for peri-operative patient care. Lab required. Prerequisites: HPRS2201, SRGT1160, and SRGT1409. Corequisites: MDCA1348 and SRGT1161, or consent of Program Director. Major Requirement: AAS-Surgical Technology. 5 credit hours. (W)

**SRGT1542 Surgical Procedures II**

Introduction to surgical procedures and related pathologies. Emphasis on surgical procedures related to the thoracic, peripheral vascular, plastic/reconstructive, ophthalmology, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies required for peri-operative patient care. Lab required. Prerequisites: SRGT1161 and SRGT1541. Corequisite: SRGT2260, or consent of Program Director. Major Requirement: AAS-Surgical Technology. 5 credit hours. (W)

**SRGT2130 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: SRGT1542 and SRGT2260. Corequisites: SRGT1171 and SRGT2361, or consent of Program Director. Major Requirement: AAS-Surgical Technology. 1 credit hour. (W)

**SRGT2260 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: SRGT1161 and SRGT1541. Corequisite: SRGT1542, or consent of Program Director. Major Requirement: AAS-Surgical Technology. 2 credit hours. (W)

**SRGT2361 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: SRGT1542 and SRGT2260. Corequisites: SRGT1171 and SRGT2130, or consent of Program Director. Major Requirement: AAS-Surgical Technology. 3 credit hours. (W)

**TECA1303 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. Assessment: Placement in ENGL0315; READ0310. 3 credit hours. (A)

**TECA1311 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. Assessment: Placement in ENGL0315; READ0310. 3 credit hours. (A)

**TECA1318 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. Assessment: Placement in ENGL0315; READ0310. 3 credit hours. (A)

**TECA1354 Child Growth and Development**

A study of the physical, emotional, social and cognitive factors of growth and development of children birth through adolescence. Assessment: Placement in ENGL0315; READ0310. 3 credit hours. (A)

**TRVM1327 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)

**TRVM1380 Cooperative Education-Tourism  
and Travel Service 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)

**TRVM2301 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)

**TRVM2333 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: TRVM2301 or consent of Instructor or Department Chair. 3 credit hours. (W)

**TRVM2355 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)