



STUDENT  
**CATALOG**  
2020-2021





# The Collin College Catalog

Academic Year: 2020-2021

Published:  
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# ABOUT COLLIN COLLEGE

## **COLLEGE MISSION STATEMENT**

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

## **VISION STATEMENT**

Delivering a brighter future for our students and communities.

## **CORE VALUES**

We have a passion for:

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

## **PHILOSOPHY AND PURPOSE**

### **STATEMENT**

Through its campuses, centers and programs, Collin County Community College District fulfills community and industry needs and its statutory charge by providing:

- Academic courses in the arts and sciences to transfer to senior institutions.
- Programs leading to baccalaureate degrees, associate degrees or certificates, including technical programs, 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 initiatives designed to meet local and statewide needs.
- Other purposes as may be directed by the Board and/or the laws of the State of Texas.

## **EQUAL OPPORTUNITY STATEMENT**

Collin College is an equal opportunity institution and provides educational and employment opportunities without discrimination on any basis protected by

applicable law. In accordance with the Americans with Disabilities Act as amended in 2008 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. Terrence Brennan, the Student ADA/504 Coordinator, can be located at the Collin Higher Education Center, Office Suite 448; 972.881.5604.

For more information or to request accommodation services for students, contact ACCESS (Accommodations at Collin College for Equal Support Services) at 972.881.5898 (Voice). For persons who are deaf, hard of hearing, or have speech impairments, please contact the ACCESS office at 972.516.5056. The Collin College ACCESS Department Video Phone number is 214.299.8216. Upon request to the ACCESS Office, the college catalog can be converted to an accessible format for vision or print-oriented disabilities.

## **ACCREDITATION STATUS**

Collin County Community College District is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate degrees, 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 County Community College District.

## **ACCREDITING BODIES**

Accreditation Commission for Education in Nursing (ACEN); Accreditation Commission for Programs in Hospitality Administration; American Culinary Federation Education Foundation; American Dental Association's Commission on Dental Accreditation (CODA); Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM); Commission on Accreditation for Respiratory Care (CoARC); Commission on Accreditation of Allied Health Education Programs (CAAHEP) through the Committee on Accreditation of Emergency Medical Services Professions (CoAEMSP); Commission on Accreditation of Allied Health Education Programs (CAAHEP) through the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA); Commission on Accreditation of Allied Health Education Programs (CAAHEP) through the Committee on Accreditation for Polysomnographic Technologist Education (CoAPSG); National Association for the Education of Young Children (NAEYC).

## CAMPUS AND WEBSITE INFORMATION

### Campuses and Locations

To see campus maps, visit [www.collin.edu/campuses](http://www.collin.edu/campuses)

#### Collin Higher Education Center (CHEC)

3452 Spur 399  
McKinney, Texas 75069  
972.599.3100

#### Collin Virtual Campus (CVC)

2800 E. Spring Creek Parkway  
Plano, Texas 75074  
972.881.5770  
[cvc@collin.edu](mailto:cvc@collin.edu)

#### Courtyard Center (CYC)

4800 Preston Park Blvd.  
Plano, Texas 75093  
972.985.3790

#### Frisco Campus (Preston Ridge)

9700 Wade Blvd.  
Frisco, Texas 75035  
972.377.1790

#### McKinney Campus (Central Park)

2200 W. University Drive  
McKinney, Texas 75071  
972.548.6790

#### Plano Campus (Spring Creek)

2800 E. Spring Creek Parkway  
Plano, Texas 75074  
972.881.5790

#### Public Safety Training Center

3600 Redbud Blvd.  
McKinney, Texas 75069  
972.548.6863

#### Rockwall Center (RW)

2301 John King Blvd.  
Rockwall, TX 75087  
469.698.7499

#### Technical Campus

2550 Bending Branch Way  
Allen, TX 75013  
972-553-1290

#### Wylie Campus

391 Country Club Road  
Wylie, TX 75098  
972-378-8790

### Collin College Home

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

### Board of Trustees

[www.collin.edu/leadership/board\\_of\\_trustees.html](http://www.collin.edu/leadership/board_of_trustees.html)

### Administration, Leadership Team, and Org Chart

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

### Faculty

[www.collin.edu/hb2504](http://www.collin.edu/hb2504)  
(*course syllabi, professors' curricula vitae*)

### ACCESS – Disability Support Services

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

### Athletics

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

### Center for Scholarly and Civic Engagement

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

### Continuing Education and Workforce Development

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

### Fitness Centers/Intramurals

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

### Honors Institute

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

### Learning Communities

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

### Law Enforcement Academy

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

### Service Learning

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

### Student Organizations/Cougar Connect

[collin.campuslabs.com/engage/](http://collin.campuslabs.com/engage/)

### The Art Gallery

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

### The Center for Advanced Studies In Mathematics and Natural Sciences

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

### Weekend College

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

## QUICK REFERENCE GUIDE

### ***Allen Center (AL) (Refer to the Technical Campus after Fall 2020)***

General Information.....972.377.1060

### ***Collin Higher Education Center (CHEC)***

#### **Student Services**

Associate Provost of Instruction.....972.599.3121

Collin College Police Department.....972.578.5555

Cougar News (Online Newspaper).....972.758.3845

Information Center.....972.599.3100

Transfer Programs .....972.599.3121

#### **Administrative Departments**

##### **Title IX Coordinator for Complaints**

Against Employees .....972.599.3159

Business Office.....972.758.3820

Cashier's Office.....972.758.3813

Dean of Students and Title IX Coordinator for

Complaints Against Students.....972.881.5604

District President's Office.....972.758.3800

Executive Vice President.....972.758.3883

Foundation (Scholarships) .....972.599.3145

Vice President of Academic Affairs.....972.549.6338

Vice President of Administrative

Services/CFO .....972.758.3831

Vice President of Advancement .....972.758.3894

Vice President of Student and

Enrollment Services.....972.599.3151

CHEC Four-year University Representatives

Texas A&M University-Commerce .....972.599.3122

Texas Tech University.....972.599.3123

Texas Woman's University .....972.599.3124

The University of Texas at Dallas .....972.599.3127

University of North Texas .....972.599.3126

### ***Courtyard Center (CYC)***

#### **Student Services**

Admissions.....972.985.3711

Bookstore.....972.985.3710

Career Center .....972.599.3174

Collin College Police Department.....972.578.5555

Registration.....972.985.3711

#### **Administrative Departments**

Cashier's Office.....972.985.3724

Texas Success Initiative (TSI) Info .....972.548.6773

#### **Divisions**

Continuing Education.....972.985.3750

### ***Frisco Campus (Preston Ridge Campus)***

#### **Student Services**

ACCESS.....972.881.5950

Admissions.....972.377.1710

Bookstore.....972.377.1680

Career Center .....469.365.1904

Collin College Police Department.....972.578.5555

#### **Cooperative Work Experience:**

Co-ops/Internships.....972.377.1594

Counseling Services.....972.377.1781

Dean of Students .....972.881.5604

eCollin Learning Center .....972.881.5870

Financial Aid/Veterans Affairs .....972.377.1760

Fitness Center.....972.377.1758

Information Center .....972.377.1790

Library .....972.377.1560

Math Lab.....972.377.1639

Student Computer Lab.....972.377.1565

Student and Enrollment Services.....972.377.1770

Student Engagement.....972.377.1788

Student Technical Support 24/7 .....972.377.1777

Testing Center .....972.377.1522

Transfer Programs.....972.985.3734

Writing Center.....972.377.1576

#### **Administrative Departments**

Cashier's Office .....972.377.1637

Dean of Student and

Enrollment Services .....972.881.5902

Facilities Scheduling Coordinator .....972.377.1743

Instruction Office - Lawler Hall

(LH158).....972.377.1554

Instruction Office - Founders Hall

(F243) .....972.377.1506

Instruction Office - J Building

(J240).....972.377.1064

Instruction Office - Library

(L222) .....972.377.1022

Instruction Office - University Hall

(U111).....972.377.1506

Texas Success Initiative (TSI) Info.....972.548.6773

Vice President/Provost Office.....972.377.1550

#### **Divisions**

Academic Affairs .....972.377.1006

Computer Science, Engineering Tech

and Human Services .....469.365.1900

### ***McKinney Campus (Central Park Campus)***

#### **Student Services**

ACCESS.....972.548.6816

Admissions .....972.548.6710

Bookstore .....972.548.6680

Career Center.....972.548.6747

Center for Academic Assistance .....972.548.6505

Collin College Police Department .....972.578.5555

Cooperative Work Experience:

Co-ops/Internships.....972.377.1594

Counseling Services.....972.548.6648

Dean of Students .....972.881.5604

Director of Testing.....972.548.6773

eCollin Learning Center .....972.881.5870

Financial Aid/Veterans Affairs .....972.548.6760

Fitness Center.....	972.548.6891
Information Center.....	972.548.6790
Library.....	972.548.6869
Math Lab.....	972.548.6896
Student Computer Lab.....	972.548.6877
Student and Enrollment Services.....	972.548.6770
Student Engagement.....	972.548.6788
Student Technical Support 24/7.....	972.377.1777
Testing Center.....	972.548.6849
Transfer Programs.....	972.985.3734
Writing Center.....	972.548.6857

#### **Administrative Departments**

Instruction Office.....	972.548.6830
Cashier's Office.....	972.548.6616
Collaborative Instruction Center.....	972.548.6830
Dean of Student and Enrollment Services.....	972.881.5707
Facilities Scheduling Coordinator.....	972.377.1743
Texas Success Initiative (TSI) Info.....	972.548.6773
Vice President/Provost.....	972.548.6800

#### **Divisions**

Academic Affairs.....	214.491.6270
Health Sciences and Emergency Services.....	972.548.6679
Nursing.....	972.548.6772

#### ***Plano Campus (Spring Creek Campus)***

Student Services	
ACCESS.....	972.881.5898
ADA/Section 504 Coordinator.....	972.881.5779
Admissions.....	972.881.5710
THE ARTS gallery.....	972.881.5873
Bookstore.....	972.881.5680
Center for Scholarly and Civic Engagement (CSCE).....	972.881.5927
Child Development Lab School.....	972.881.5945
Collin College Police Department.....	972.578.5555
Cooperative Work Experience: Co-ops/Internships.....	972.377.1594
Career Center.....	972.881.5627
Counseling Services.....	972.881.5126
Dean of Students.....	972.881.5604
eCollin Learning Center.....	972.881.5870

Financial Aid/Veterans Affairs.....	972.881.5760
Fitness Center.....	972.881.5848
Food Services.....	972.881.5949
Honors Institute.....	972.516.5003
Information Center.....	972.881.5790
International Student Office.....	972.516.5012
Library.....	972.881.5985
Math Lab.....	972.881.5921
Service Learning.....	972.881.5900
Student Computer Lab.....	972.881.5966
Student and Enrollment Services.....	972.881.5849
Student Engagement.....	972.881.5788
Student Technical Support 24/7.....	972.377.1777
Testing Center.....	972.881.5922
Transfer Programs.....	972.985.3734
Tutoring.....	972.881.5128
Wellness Center.....	972.881.5777
Writing Center.....	972.881.5843

#### **Administrative Departments**

Cashier's Office.....	972.881.5634
Dean of Student and Enrollment Services.....	972.377.1595
Facilities Scheduling Coordinator.....	972.881.5606
Instruction Office (B103).....	972.516.5090
Instruction Office (K237).....	972.881.5759
Instruction Office (L215).....	972.881.5756
Texas Success Initiative (TSI) Info.....	972.548.6773
Vice President/Provost Office.....	972.881.5770

#### ***Public Safety Training Center***

General Information.....	972.548.6863
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#### ***Rockwall Center (RW)***

General Information.....	469.698.7499
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#### ***Technical Campus (Opening Fall 2020)***

TechnicalCampus@collin.edu

#### ***Wylie Campus (Opening Fall 2020)***

WylieCampus@collin.edu

## 2020-2021 ACADEMIC CALENDAR

### FALL 2020

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<b>Aug. 14</b>	<b>All College Day (All Campuses Closed)</b>
Aug. 24	Fall Classes Begin
<b>Sept. 7</b>	<b>Labor Day Holiday (All Campuses Closed)</b>
Sept. 8	Fall Census Date
<b>Sept. 18</b>	<b>Plano Balloon Festival-Plano Campus Closes @ 3 pm</b>
<b>Sept. 19-20</b>	<b>Plano Balloon Festival-Plano Campus Closed</b>
Oct. 16	Fall Last Day to Withdraw
<b>Nov. 25-29</b>	<b>Thanksgiving Holiday (All Campuses Closed)</b>
Dec. 7-13	Fall Final Exam Week
Dec. 11	Collin College 2020 Commencement @ 7 p.m.
Dec. 14-23	Wintermester Classes Meet
Dec. 15	Wintermester Census Date
Dec. 18	Wintermester Last Day to Withdraw
<b>Dec. 24-Jan. 3</b>	<b>Winter Break (All Campuses Closed)</b>

### SPRING 2021

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Jan. 4	Wintermester Classes Resume
Jan. 6	Wintermester Final Exams
Jan. 8	All College Day Campus Meetings (Campuses Open)
<b>Jan. 18</b>	<b>MLK Holiday (All Campuses Closed)</b>
Jan. 19	Spring Classes Begin
Feb. 1	Spring Census Date
<b>Mar. 8-11</b>	<b>Spring Break (No Classes)</b>
<b>Mar. 12-14</b>	<b>Spring Break (All Campuses Closed)</b>
Mar. 19	Spring Last Day to Withdraw
<b>Apr 2-4</b>	<b>Spring Holiday (All Campuses Closed)</b>
May 10-16	Spring Final Exam Week
May 14	Collin College 2021 Commencement @ 7:00 p.m.

### SUMMER 2021

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May 17	Maymester Classes Begin
May 18	Maymester Census Date
May 21	Maymester Last Day to Withdraw
<b>May 31</b>	<b>Memorial Day Holiday (All Campuses Closed)</b>
June 1	Maymester Final Exams
June 7	5 Week June (Summer I) and 10 Week Summer (Summer III) Classes Begin
June 10	5 Week June (Summer I) Census Date
June 15	10 Week Summer (Summer III) Census Date
June 22	5 Week June (Summer I) Last Day to Withdraw
<b>July 3-5</b>	<b>Independence Day Holiday (All Campuses Closed)</b>
July 8	10 Week Summer (Summer III) Last Day to Withdraw
July 9	July 4 <sup>th</sup> Make-up Day for 5 Week June (Summer I) and 10 Week Summer (Summer III) MW Classes
July 9	5 Week June (Summer I) Final Exams
July 12	5 Week July (Summer II) Classes Begin
July 15	5 Week July (Summer II) Census Date
July 16	Required Class Day for 5 Week July (Summer II) and 10 Week Summer (Summer III) MW Classes
July 23	Required Class Day for 5 Week July (Summer II) and 10 Week Summer (Summer III) TR Classes
July 27	5 Week July (Summer II) Last Day to Withdraw
Aug. 9-10	10 Week Summer (Summer III) Final Exams
Aug. 10	5 Week July (Summer II) Final Exams

## ADMISSIONS AND REGISTRATION

### **ADMISSIONS POLICIES**

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 the special admission requirements. 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 College being blocked and ineligibility to receive Collin College transcripts. If no college/ university has been attended, a high school transcript or GED is required. Documents and transcripts submitted for admission become the property of Collin College and will not be returned to the applicant.

### **ADMISSION TO SPECIAL PROGRAMS**

Programs and certificates in activity care professional, dental hygiene, fire academy and fire science certification, nursing, child development, polysomnographic technology, health information management, emergency medical services professions, medical assisting, pastry arts and culinary arts, respiratory care, surgical professions, veterinary technology have specific program admissions criteria and require approval to enroll. Refer to the catalog and/or contact the academic department office for information on requirements.

### **Air Force and Army ROTC**

Collin College students are given the opportunity to participate in the Air Force and Army ROTC programs as crosstown students at the University of North Texas in Denton.

Students are required to attend an academic class, leadership laboratory and physical training at the University of North Texas once a week during the Fall and Spring academic semesters.

The ROTC mission is to develop quality leaders to serve our country as officers in the United States Air Force or Army. As a part of the program, you will prepare yourself to become an Air Force or Army officer while completing

your degree as a college student. Students may participate in the four-year or three-year programs.

Students enroll in ROTC classes at the same time and in the same manner as other Collin College courses. Business and Computer Systems administers the offering of Air Force and Army ROTC courses for Collin College; students register and pay via Collin College in accordance with published payment deadlines. For more information please visit [www.afrotc.unt.edu](http://www.afrotc.unt.edu), [armyrotc.unt.edu](http://armyrotc.unt.edu), or e-mail [det835@unt.edu](mailto:det835@unt.edu).

### **COLLEGE WIDE IDENTIFICATION (CWID) AND E-MAIL**

Students at Collin College are issued a College 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.

Official communication between students and faculty/staff is through the college wide email system, Collin College email, which is accessed through the campus portal CougarWeb. For login information, contact the Admissions Office or visit <http://www.collin.edu>.

### **STUDENTS NEW TO COLLIN**

#### **First-Time Freshmen**

Students 18 years and older who have never attended a college/university must:

1. Complete an application online at <https://apply.collin.edu>.
2. Submit a final, official high school transcript or GED.
3. Complete the TSI Assessment with the Pre-Assessment Activity or provide proof of exemption/waiver.
4. Provide proof of meningitis vaccination, if needed.
5. Participate in New Student Orientation.
6. Complete mandatory campus safety training.

#### **APPLICANTS WITHOUT A DIPLOMA OR GED\***

Students under age 18 without a high school diploma or equivalent and no longer involved in a high school program applying for admission must:

1. Complete an application online at <https://apply.collin.edu>.
2. Provide documentation that the student is no longer enrolled in a high school program.
3. Submit an official transcript from the last U.S. high school attended.

4. Complete the TSI Assessment with the Pre-Assessment Activity or provide proof of exemption/waiver.
5. Provide written parental/guardian permission for students under 18 years of age.
6. Provide proof of meningitis vaccination, if needed.
7. Complete mandatory campus safety training.

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 through the Texas Education Agency's website at <http://www.tea.state.tx.us>. Additionally, the Collin County Adult Literacy Council, through its website and help line, offers a referral service for North Texas (<http://www.ccalc.org>).

\*Note: Students admitted under this policy are not eligible for Title IV-financial aid.

### HOME-SCHOOL STUDENT ADMISSIONS

To be admitted, all home-schooled students under the age of 18 must:

1. Complete an application online at <https://apply.collin.edu>.
2. Provide Official Home School Transcript.
3. Complete the TSI Assessment with the Pre-Assessment Activity or provide proof of exemption/waiver.
4. Provide proof of meningitis vaccination, if needed.
5. Submit signed High School Student Enrollment Permission Form with appropriate signatures.
6. Complete mandatory campus safety training.

### HIGH SCHOOL STUDENT ENROLLMENT CONCURRENT ENROLLMENT/DUAL CREDIT

The High School Concurrent Enrollment/Dual Credit program is designed for high-school-aged students who are ready to begin earning college credits. All students are encouraged to participate.

High school students interested in concurrent enrollment or dual credit admission to Collin College must:

1. Complete an application online at <https://apply.collin.edu>.
2. Complete the TSI Assessment with the Pre-Assessment Activity or provide proof of exemption/waiver.
3. Provide proof of meningitis vaccination, if needed.
4. Submit signed High School Student Enrollment Permission Form with appropriate signatures.

5. Complete mandatory campus safety training.

Students not applying through their high school dual credit program may contact a Special Admission Coordinator for admissions and course availability information (Due to state law, not all college courses are available for dual credit or concurrent enrollment).

Students needing academic accommodations must apply and be approved with [ACCESS](#).

### INTERNATIONAL STUDENTS

Applicants on temporary visas may be eligible for admission. To verify residency status, applicants are required to present their visa with their application to the admissions area in the Student and Enrollment Services Office.

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

All applicants holding F-1 visas should contact the International Student Office (ISO) at 972.516.5012 or email [iso@collin.edu](mailto:iso@collin.edu). The following deadlines are required for degree-seeking applicants residing outside of the United States seeking the F-1 student visa:

- Fall semester – June 1
- Spring semester – October 1
- Summer semesters – March 1

All applicants for international student admissions must complete an online application and submit the following to the International Students Office (ISO) at the Plano Campus (Spring Creek) in Room G103 or through email to [iso@collin.edu](mailto:iso@collin.edu):

1. Test Scores:
  - a. F-1 degree-seeking applicants must submit one (1) of the following:
    - i. TOEFL Internet-based Test (IBT) score of 71 or higher,
    - ii. TOEFL Paper-based Test (PBT) score of 525 or higher,
    - iii. TOEFL Computer-based Test (CBT) score of 197 or higher, or
    - iv. International English Language Testing System (IELTS) score of 6.5 or higher.
  - b. F-1 English as a Second Language (ESL) program applicants must submit one (1) of the following:
    - i. TOEFL Internet-based Test (IBT) score of 32 (minimum score of 8 in each skill),
    - ii. TOEFL Paper-based Test (PBT) score of 385 (minimum score of 93 in each skill), or
    - iii. IELTS score of 4.5 (minimum score of 4.0 in each skill).

- c. If the applicant has completed at least one academic year and graduated from a U.S. high school, then an official high school diploma or transcript can be submitted in place of official TOEFL or IELTS scores.
2. A Letter of Guarantee dated within six (6) months of the date of the application deadline and the supporting financial evidence statement.
3. Submit transcripts (i.e., mark sheets, school records) from the foreign high school or college attended. Unofficial transcripts are acceptable.
4. Copy of passport ID page showing official name, date of birth and citizenship.
5. Proof of receiving the bacterial meningitis vaccine, if needed.
6. Complete training on preventing sexual violence.

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 local address form will be copied and kept on file with ISO.

All students are required to take the Pre-Assessment Activity and the Texas Success Initiative (TSI) assessment 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)**

The following deadlines are required for transfer international students holding an F-1 visa:

- Fall semester – July 15
- Spring semester – November 15
- Summer semesters – April 15

In addition to the requirements listed in the [International Student Admissions \(F-1 Visa\)](#) subsection above, the following items must also be submitted:

1. A copy of current I-20, passport, visa and I-94.
2. Transfer Verification Form 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. 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. Applicants 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.

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

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

#### **TRANSFER STUDENTS**

Transfer students are eligible for admission to Collin College and must:

1. Complete an application online at <https://apply.collin.edu>.
2. Provide an official transcript from all regionally accredited institutions of higher education.
3. Provide proof of exemption/waiver of TSI.
4. Provide proof of meningitis vaccination, if needed.
5. Complete mandatory campus safety training.

#### **ACADEMIC FRESH START**

State law (Education Code, Sec. 51.931) allows students who are residents of Texas and who have academic credits earned 10 or more years prior to the starting date of the semester in which they seek admission to Collin College to have those credits or grades not considered in the admission decision. This allows students to begin a new course of study with a clear academic record.

**Note: This is an all or nothing option.** Students are not able to pick and choose which courses to include or exclude. If the "Academic Fresh Start" option is selected, credits for any courses taken 10 or more years ago will not be counted. This means that

- Courses taken previously cannot be used to fulfill new prerequisite requirements.
- Courses taken previously cannot be counted towards the new degree.
- Courses taken previously will not be counted in the new GPA calculations.

Students must complete the admissions process, including providing information on all colleges or universities



previously attended and providing official transcripts from all schools attended.

Students under the Fresh Start provision must still meet the criteria for the [Texas Success Initiative](#).

Additional notes:

- Academic Fresh Start must be claimed upon application to Collin College and will not be applicable to currently enrolled students.
- Once the "Right to an Academic Fresh Start" provision has been claimed, and the student has enrolled, the provision cannot be reversed.
- An applicant may use the Academic Fresh Start provision only once at Collin College.

### **APPLYING FOR ACADEMIC FRESH START**

Students must submit an application for Fresh Start prior to enrollment at Collin College, preferably at the time of admission. The application is available through the Registrar's Office. Students will not be granted Fresh Start until they have completed their admissions file. The application for Fresh Start should be completed, signed, and returned to the Registrar's Office.

### **Approval of Fresh Start Application**

The final authority on applying or interpreting the State law (Education Code, Sec. 51.931), Right to an Academic Fresh Start is the Registrar.

### **EFFECT ON FINANCIAL AID**

Academic Fresh Start impacts only your academic record. For more information on the impact on financial aid, please contact the Financial Aid/Veterans Affairs office.

### **NEW STUDENT ORIENTATION**

While all First-Time In College students (freshmen) are required to complete New Student Orientation prior to registration, all students are encouraged to attend. The purpose of orientation is to provide a comprehensive overview of available campus services, resources, and opportunities. Students who are unable to attend the on-campus orientation can complete online orientation.

For additional information including dates and reservations, please call 972.881.5788, email [orientation@collin.edu](mailto:orientation@collin.edu) or visit the website at <http://www.collin.edu/orientation>.

### **CAMPUS SAFETY TRAINING**

All entering freshmen and transfer students must complete online training on active shooter preparedness, campus safety, hazing, sexual assault, sexual harassment, and suicide prevention. This training must be completed prior to registration and can be accessed through CougarWeb.

For more information regarding the Mandatory Campus Safety Training hold, call 972.881.5902 or log into

CougarWeb at <https://cougarweb.collin.edu>. For more information regarding the Campus Safety Training content and resources, call 972.881.5604 or email [dos@collin.edu](mailto:dos@collin.edu).

### **RESIDENCE REQUIREMENTS**

To be considered a Texas resident for tuition purposes, students must have clearly established a domicile in Texas for the 12 months preceding enrollment. Documentation of Texas residency is required.

1. An in-county student is an individual who is a resident of Texas and who resides in Collin County on or before 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 Student and Enrollment Services 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. Students not documenting county or state residency prior to census date of the term will be charged the higher rate. Tuition refunds due to residency changes will only be made for college errors if documentation was not submitted before census, see the academic calendar for date. Changes of address, name, etc. must be reported promptly to the Admissions 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 Office.

Students (age 24 and under) who are a dependent of a Texas resident should contact the Admissions 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, or high school transcript (if enrolled the last 12 months) showing three years of attendance and a graduation date.
- State identification card
- Texas driver's license
- Voter's registration card

### **AD VALOREM WAIVERS**

Students who have not lived in Texas for the 12 months preceding registration, but who own residential 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 Student and Enrollment Services for the proper form to complete. This form must be completed each semester until 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**

Former Collin College students who have not been enrolled at Collin College during the preceding 12 months will need to:

1. Complete an updated application online at <https://apply.collin.edu>.
2. Provide an official transcript from all regionally accredited institutions of higher education since last attending Collin College.
3. Provide proof of exemption/waiver of TSI.
4. Provide proof of meningitis vaccination, if needed.
5. Complete mandatory campus safety training, if needed.

### **REGISTRATION PROCEDURES**

#### **ONLINE REGISTRATION**

Registration for credit classes 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 their admissions, TSI, and assessment requirements, and have met with an academic advisor.

#### **ADD/DROP**

Credit students may add classes using the CougarWeb system through the first (1<sup>st</sup>) four (4) days of classes during regular 16-week semesters and during the first (1<sup>st</sup>) day of class of the Summer or mini-semester terms. For express and weekend courses, registration deadlines will vary. For regular 16-week classes, there is a registration hard deadline on the fourth (4<sup>th</sup>) day of the semester.

Registration for any course will result in full tuition and fee assessment for the course hours. Any course dropped on or after the first (1<sup>st</sup>) day of each term or mini-semester will result in charges for the dropped course as determined by the state refund guidelines and approved tuition rates.

All students must initiate the process to be dropped from classes prior to the first (1<sup>st</sup>) class day or they will be

required to make payment for tuition and fees assessed. Students receiving financial aid may not be automatically dropped from classes.

Drops and/or withdrawals may be made online through the posted Last Day to Withdraw for the term. For specific dates, see the *Academic Calendar* section.

Students should contact their professors prior to initiating a drop. A student who discontinues class attendance and does not officially drop the course will receive a performance grade (i.e., A, B, C, D, or F) on his or her official transcript.

International students should contact the International Student Office (ISO) prior to dropping courses. For international students, failure to maintain full-time status\* could affect or jeopardize their F-1 Visa and/or immigration status.

Students receiving financial aid or veterans assistance should contact the Financial Aid/Veterans Affairs Office prior to dropping courses.

\*Full-time status is 12 credit hours during the Fall and Spring semesters and six (6) credit hours in a Summer session. Full-time status for mini-semester varies. International students whose first semester is Summer are required to complete six semester hours. International students who are enrolled in the ESL program are required to enroll in 15 credit hours during the Summer and long sessions.

#### **REGISTRATION FOR CONTINUING EDUCATION (CE) AND WORKFORCE DEVELOPMENT CLASSES**

Each semester Collin College offers Continuing Education (CE) classes to community members through Continuing Education and Workforce Development. Registration for these classes can be done in three (3) ways:

1. Online registration: Registration online at [www.collin.edu/ce/registration.html](http://www.collin.edu/ce/registration.html) if you already have a student account at Collin College. Apply at [www.collin.edu/ce/application.html](http://www.collin.edu/ce/application.html) if you are a new student.
2. Phone registration: Call 972.985.3711 and provide the course name, CRN, and credit card information (we accept VISA, Discover, or MasterCard).
3. Walk-in registration: Available at the Courtyard Center - Plano, Plano Campus (Spring Creek), McKinney Campus (Central Park), and Frisco Campus (Preston Ridge). Times are listed in the current Continuing Education Schedule.

See the current Continuing Education Schedule for registration deadlines.

### **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 Advising, Admissions, the Barnes & Noble College Bookstores, Career Centers, Computer Labs, Intramural / Fitness Centers, Libraries, Math Labs, Student Engagement, Student and Enrollment Services, and the Testing Centers. Student ID office hours are listed in the Collin College Student Handbook.

### **TESTING CENTERS AND ASSESSMENT SERVICES**

Testing Centers are located at the Frisco, McKinney, Plano, Technical, and Wylie campuses for the Texas Success Initiative (TSI) Assessment for course placement, higher level math assessment, credit by exam testing, limited instructional testing, ESL assessments, and proctoring of correspondence exams. Collin College is an official testing site for ACT (American College Testing Program) and CLEP (College-Level Examination Program).

Collin College codes for these tests are:

1. ACT, McKinney Campus (Central Park) 40460
2. ACT, Plano Campus (Spring Creek) 42090
3. CLEP 2290

The Testing Centers are monitored by surveillance equipment.

### **TEXAS SUCCESS INITIATIVE (TSI)**

The Texas Success Initiative (TSI) Assessment is a program designed to determine if the student is ready for college-level course work in the general areas of reading, writing, and mathematics. The TSI mandates that all new students (unless otherwise exempt) entering Texas public colleges and universities be assessed in the basic skills of reading, writing, and mathematics. Based on assessment results, a student may either be enrolled in a college-level course that matches his or her skill level or placed in the appropriate developmental course or intervention to improve skills and prepare the student for success in college-level courses. Students wanting to enroll only in English as a Second Language (ESL) coursework can do so without taking the TSI assessment.

### **MANDATORY PRE-ASSESSMENT ACTIVITY (PAA)**

Before taking the initial TSI Assessment, a student must participate in a Pre-assessment Activity (PAA) located online at [www.collin.edu/preassessment/](http://www.collin.edu/preassessment/). A Certificate of Completion will be printed at the end of the PAA and is required to take the TSI Assessment.

### **EXEMPTIONS**

Students may seek exemption from TSI based on:

- an ACT Composite score of 23 or higher (with individual Mathematics and English scores of no less than 19),
- SAT administration after March 2016 with an Evidence-based Reading and Writing score of 480 or higher and a Math score of 530 or higher,
- SAT administration prior to March 2016 with a combined SAT score of 1,070, Reading and Math only (with a minimum of 500 in Mathematics and Reading),
- high school end-of-course STAAR with a minimum qualifying score of 4,000 in level 2 English III and 4,000 in level 2 Algebra II, or
- documentation for a student who, on or after August 1, 1990, was honorably discharged, retired, or released from active duty as a member of the armed forces of the United States or the Texas National Guard or service as a member of a reserve component of the armed forces of the United States. The student must provide a copy of his or her DD214 to document this exemption.
- Completion of an associate degree or higher from a United States regionally accredited institution.

Note: ACT, SAT, and STAAR scores can be no more than five (5) years old.

### **PARTIAL EXEMPTIONS**

Students with an ACT Composite score of 23 (or higher) can be exempt from TSI Math with an ACT Math score of 19 (or higher) even if the ACT English score is less than 19. Students with an ACT Composite score of 23 or higher can be exempt from the TSI Reading and TSI Writing with an ACT English score of 19 (or higher) even if the ACT Math score is less than 19.

Students with an SAT administered after March 2016 can be exempt from TSI Reading and TSI Writing with an SAT Evidence-based Reading and Writing score of 480 or higher. Students with an SAT administered after March 2016 can be exempt from TSI Math with an SAT Math score of 530 or higher.

Students with an SAT administered prior to March 2016 with a combined Reading and Math score of 1,070 or higher can be exempt from TSI Math with an SAT Math score of 500 or higher even though the SAT Reading may be less than 500. Students with a combined SAT Reading and Math score of 1,070 or higher can be exempt from TSI Reading and TSI Writing with a score of 500 or higher even though the SAT Math may be less than 500. Students with a STAAR Algebra II score of 4,000 are exempt from TSI Math. Students with a STAAR English III score of 4,000 are exempt from TSI Reading and Writing.

New students will be required to furnish Collin College with necessary proof regarding TSI status.

### **WAIVERS**

Students can be waived from TSI requirements if they:

- are dual credit students with qualifying ACT Aspire or English II and/or Algebra I STAAR scores;
- are pursuing a Level I workforce certificate of no more than 42 hours. To obtain this waiver, the student must contact the director of testing; or
- are serving on active duty as a member of the armed forces of the United States, the Texas National Guard, or as a member of a reserve component of the armed forces of the United States, and have been serving for at least three (3) years preceding enrollment (documentation required).

### **Temporary Waivers**

- A student who is enrolled in a Level I workforce certificate program of 42 or less (degree plan must be on file).
- A student who is currently serving on active duty as a member of the armed forces of the United States, the Texas National Guard, or as a member of a reserve component of the armed forces of the United States and has been serving for at least three years preceding enrollment.
- A student who has successfully completed College Preparatory courses is eligible to receive a waiver for one year from the date of high school graduation. Successful completion of College Prep English/Language Arts allows for a one year waiver for Reading and Writing. Successful completion of College Prep Math allows for a one year waiver for Math.

### **Temporary Waivers for Dual Credit Students**

#### **PSAT-NMSQT**

Dual Credit students with a PSAT-NMSQT administered after October 15, 2015, with an Evidence-Based Reading and Writing score of 460 or higher will be waived from TSI Reading and TSI Writing.

PSAT-NMSQT administered after October 15, 2015, with a Math score of 510 or higher will be waived from TSI Math.

#### **ACT-Aspire**

Dual Credit students with a minimum ACT-Aspire English score of 435 or higher will be waived from the TSI Reading and TSI Writing. A minimum ACT-Aspire Math score of 431 or higher will be waived from the TSI Math.

#### **STAAR**

Dual Credit students with a STAAR English II of 4000 or higher will be waived from the TSI Reading and TSI Writing. STAAR Algebra 1 of 4000 or higher and at least a grade of 70 in their Algebra 2 course will be waived from TSI Math.

Dual Credit students only need to meet waiver requirements in the domain(s) for which they are enrolling. For example, ENGL 1301, GOVT 2305, HIST 1301 requires a qualifying waiver only in the Reading and Writing domains. MATH 1314 requires a qualifying waiver only in the Math domain.

### **MANDATORY ADVISING HOLDS**

Students who are below college level in one or two Texas Success Initiative (TSI) areas (reading, writing or mathematics) are required to meet with an academic advisor or complete an online session during their first semester at Collin College. Students will be required to have regular contact with an advisor until they are TSI complete in all three areas.

For students who do not place at college level in all three Texas Success Initiative (TSI) areas (reading, writing, and mathematics), a meeting with an advisor is required in addition to mandatory course registration in EDUC 1300 Learning Framework.

### **ENGLISH AS A SECOND LANGUAGE (ESL)**

New students wanting to enroll in an ESL course must take the ESL New Student Assessment and meet with an advisor. ESL New Student 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.

## **COLLEGE CREDIT FOR PRIOR LEARNING**

Various assessment options enable persons who have acquired knowledge and skills in non-traditional ways to demonstrate academic achievement. For enrolled students with a declared program, or students enrolled within the past year, credit may be given for non-traditional learning experiences also known as prior learning credit or prior learning assessment. The primary goal of Collin College's Credit for Prior Learning is to recognize the diverse ways in which students acquire knowledge and skills outside a traditional college setting. Earned credit for prior learning may accelerate completion of a certificate and/or associate degree for students who have met college and program admission requirements.

Note: Assessment, administrative, and/or transcript recording fees may be applied. Certain prior learning assessments may have expiration periods or time frames in which credit may be awarded.

### **PRIOR LEARNING CREDIT IN TRANSCRIPTS**

Students must complete six semester hours at Collin College before credit is given. Credit earned through a Prior Learning Assessment will be added to the transcript only upon request after student has completed six credit hours at Collin College. These credits are not used in computing grade point average. While there is no limit on the number of hours that can be earned through non-traditional credit, a minimum of 25% of the semester credit hours required for a degree or certificate must be earned at Collin College.

### **PRIOR LEARNING CREDIT**

Prior learning credit may **not** be requested –

- for a course in which the student is currently enrolled.
- for a previously completed credit course.
- for partial credit.
- more than once for a specific course.

For more information on Prior Learning Credit, please visit <http://www.collin.edu/studentresources/testing/index.html>

## **PRIOR LEARNING ASSESSMENT OPPORTUNITIES**

### **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.

- Students must be currently enrolled and must have completed six semester hours at Collin College before

credit is given. Non-developmental courses do not count towards the six credit hours.

- For more information contact the Director of Testing. Please refer to the Collin College website for the full list of allowable credits for AP exams:  
<https://www.collin.edu/studentresources/testing/crditbyexam/ap.html>

### **ARMED FORCES CREDIT**

In addition to using credit earned at other institutions to achieve advanced placement at Collin College, students may 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. The degree plan coordinator evaluates Armed Forces credit. Credit for military training will be awarded upon receipt of a student's DD214 or documentation of active service (Reserves, active duty, or honorable discharge).

### **ARTICULATED HIGH SCHOOL COLLEGE CREDITS**

Students who elected to take Collin College articulated courses in high school may be eligible to receive college credit for those courses upon high school graduation. These credits are completely tuition free and are awarded based on successful completion of an end-of-course assessment. Non-developmental courses are not eligible.

The requirements to receive college credit are:

- Students must be currently enrolled and must have completed six semester hours at Collin College before credit is given. Non-developmental courses do not count towards the six credit hours.
- Submit the petition for articulated credit within 12 months of high school graduation to a special admissions coordinator.
- Earn a passing grade\* on the end-of-course assessment in high school.
- Submit an official final high school transcript along with the petition. Articulated high school credits must be notated on the high school transcript.

Upon completion of the above steps, the college credit that a student is qualified for will be applied to the college transcript at the end of the college grading cycle. For more information, call the Dual Credit Office at 469.365.1850.

\*Passing course grades may vary, check with a special admissions coordinator for details.



## COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)

Most publicly-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:

- Students must be currently enrolled and must have completed six semester hours at Collin College before credit is given. Non-developmental courses do not count towards the six credit hours.
- CLEP credit shall be recorded on transcripts with a “CR” in order to be clearly recognized as credit earned by examination.
- 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.
- Credit is awarded for CLEP Subject Examination scores at or above the 70th percentile. See the Collin College 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 2290.

For each CLEP examination, a non-refundable administrative and examination fee will be charged. For information on taking a CLEP subject exam, please contact the Director of Testing. Please refer to the Collin College website for the full list of allowable credits for CLEP exams:

<https://www.collin.edu/studentresources/testing/creditbyexam/clep.html>

## CREDIT BY EXAM (DEPARTMENTAL EXAMS)

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

- Students must be currently enrolled and must have completed six semester hours at Collin College before credit is given. Non-developmental courses do not count towards the six credit hours.
- 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 the 70th percentile to receive credit for the course.
- Although a maximum of 75% of your degree or certificate requirements can be earned by examination, course exam availability vary by program.
- Credit earned by examination may not be earned in any course for which the student has previously received a grade, either at this institution or elsewhere. (Grades of 'F' and 'W' are included)
- Prior learning credit previously applied at another institution of higher education does not automatically transfer to Collin College.

## CREDIT FOR PRIOR LEARNING THROUGH CONTINUING EDUCATION

Students who have taken for example Cisco Networking (CCNA-only) or real estate licensure courses through Collin Continuing Education may be eligible to receive college credit for those courses. The requirements to receive college credit are:

- Students must be currently enrolled and must have completed six semester hours at Collin College before credit is given. Non-developmental courses do not count towards the six credit hours.
- The CE courses must have been completed within the past 12 months.
- Must have successfully completed the same end-of-course final assessment as the credit students.
- The course was not repeated more than once.

A minimum of 25% of the semester credit hours required for a degree or certificate must be earned at Collin College. A non-refundable fee will be assessed for each course that is transcribed.

## INTERNATIONAL BACCALAUREATE DIPLOMA (IB)

The International Baccalaureate diploma is an international program of courses and exams offered at the high school level. Collin College will award specific college credit in subject appropriate areas on all IB exam scores of 4 or above, with an IB diploma or certificate. Student must have an official IB transcript sent to Collin College. Please refer to the Collin website for the full list of allowable credits for IB exams:

<https://www.collin.edu/studentresources/testing/creditbyexam/ib.html>

## FINANCIAL POLICIES AND PROCEDURES

### **STUDENT ACCOUNT COSTS**

Undergraduate (credit) course tuition and fees are assessed on a per hour basis rather than a per course cost. The per hour tuition rate is determined by the student's residency classification, as determined by Student and Enrollment Services, and whether a course qualifies for state funding. Additional per course lab or special fees may be assessed, as needed and approved.

Continuing Education (CE) course instructional fees are assessed on a per course basis. The cost of each course is listed in the applicable Continuing Education Schedule located on Collin College's website at [www.collin.edu/ce/](http://www.collin.edu/ce/).

All Collin College tuition and fees, both course and/or service related, must be approved by Collin College's Board of Trustees (Board), are added as necessary, and are kept to a practical minimum. For the most current credit course tuition and fee rates, as well as additional course and/or service specific fees, go to [www.collin.edu/bursar/tuition.html](http://www.collin.edu/bursar/tuition.html).

### **AVERAGE IN-STATE COST OF ATTENDANCE (COA) FOR CREDIT STUDENTS**

In addition to the direct costs incurred by a student attending Collin College, the cost of attendance (COA), also known as the budget, is an estimate of anticipated comprehensive costs the typical student would incur for a given academic period. The COA includes not only tuition and fees but also other educationally related expenses such as books and supplies, room and board, transportation, and personal expenses.

Standardized costs of attendance are established each year and are applied equally across similar groups of students (e.g., full-time students), providing a more comprehensive budget picture for an academic year or term. Charts showing the average cost of attendance at Collin College are available online at [www.collin.edu/gettingstarted/financial\\_aid/coa.html](http://www.collin.edu/gettingstarted/financial_aid/coa.html).

### **STUDENT FINANCIAL RESPONSIBILITY**

Registration is required for students to attend courses at Collin College. Registration in any course or acceptance of any service from Collin College creates a contractual obligation and agreement to pay all tuition, fees, and other assessed and/or associated costs resulting from registration and/or receipt of services. The three (3) primary credit terms have an advertised early registration payment deadline. After the initial credit term's payment deadline, and for all CE terms, any registration balance on the student's account is due at the time of registration. It is the

student's responsibility to review account balances, comply with financial aid eligibility requirements and third (3rd) party funding guidelines, and pay any balance due by the established payment deadlines.

By registering for courses at Collin College, the student is acknowledging understanding of, and agreement to, personal financial responsibility, including the following:

Registration is, in fact, acceptance of financial responsibility and constitutes a promissory note agreement (i.e., a financial obligation in the form of an educational loan, as defined by the [U.S. Bankruptcy Code, 11 U.S.C. §523\(a\)\(8\)](#)) in which Collin College is providing educational services, possibly deferring some or all of a payment obligation for those services per payment deadline policies.

The student promises to pay and/or secure alternate funding for all assessed tuition, fees, and other associated costs and/or balances by the published or assigned due date. The student acknowledges default of payment obligations may result in additional collection activities, assessed charges, and/or account and/or service restrictions.

The student is responsible for all course registration activity, including drop/withdrawal from courses.

Registration is only complete upon full funding of courses.

Charges for dropped/withdrawn credit courses will be assessed in accordance with the [Texas Higher Education Coordinating Board \(THECB\) Refund Rules](#), which specifies 100 percent remission of tuition and fees is only available for courses dropped prior to the beginning of the term or mini-term.

Charges for dropped CE courses will be assessed per Collin College's published refund rules, which specify 100 percent remission of instructional fees is only available prior to the course start date/time.

Payment of tuition and fees corresponding to dropped or withdrawn courses is the student's responsibility. Failure to attend class or receive a bill does not absolve the student of financial responsibility.

Per [Texas Education Code 54.007\(d\)](#): A STUDENT WHO FAILS TO MAKE FULL PAYMENT OF TUITION AND MANDATORY FEES, INCLUDING ANY INCIDENTAL FEES, BY THE DUE DATE MAY BE PROHIBITED FROM REGISTERING FOR CLASSES UNTIL FULL PAYMENT IS MADE. A STUDENT WHO FAILS TO MAKE FULL PAYMENT PRIOR TO

THE END OF THE SEMESTER OR TERM MAY BE DENIED CREDIT FOR THE WORK DONE THAT SEMESTER OR TERM.

The Agreement to Collin College's Terms and Conditions of Registration and Agreement to Pay Tuition Charges and Unpaid Student Account Balances is located at [www.collin.edu/bursar/Financial\\_Responsibility.html](http://www.collin.edu/bursar/Financial_Responsibility.html).

### **PAYMENT REQUIREMENTS AND DEADLINES**

Payment deadlines and student account balances are available online. Meeting payment deadline requirements within each registration period is the student's responsibility. Funding must be in place in compliance with payment deadline requirements within the applicable registration period to ensure course enrollment status.

### **REGISTRATION PERIODS**

**Early Registration** (credit term) is the period from the first (1st) day of registration through the advertised early registration payment deadline. Additional information and the payment deadlines for specific terms are located at [www.collin.edu/bursar/payment\\_deadline.html](http://www.collin.edu/bursar/payment_deadline.html).

Funding for all charges on the student's account is due in full on or before the early registration payment deadline. Acceptable funding is payment in full, awarded and authorized financial aid, verified third (3rd) party (TP) funding, eligible exemptions/waivers, a promissory note payment plan agreement, or a combination of the above. Students with any outstanding balances not funded in full on or before the published payment deadline may be dropped from all classes by an automated process that same night. Partial funding will not prevent classes from being dropped.

**Regular Registration** (credit term) for the Fall, Spring, and Summer terms begins after the early registration payment deadline and continues until the day before the term or mini-session begins. Regular registration activity, including Weekend Express or mini-semester registration, must be paid in full or have approved funding noted at the time of registration to prevent the course(s) being dropped for non-payment.

**Late Registration** (credit term) begins the first (1st) day of the primary part of term for each term (i.e., Fall, Spring, and Summer), and a late fee is assessed for registration initiated the first (1st) week of the term. Late registration activity, including Weekend Express or mini-semester registration, must be paid in full or have approved funding noted at the time of registration to prevent the course(s) from being dropped for non-payment and registration and/or transcript holds being placed on the student's account.

**CE registration** terms do not provide an early registration period. All funding sources must be in place at the time of registration to prevent drop for non-payment activity and/or registration and transcript holds being placed on the student's account.

Charges and payments are term specific. When paying online, students need to select the specific term for which they are making payment.

### **AUTOMATIC COURSE CANCELLATION, OR DROP FOR NON-PAYMENT (DNP), OF TUITION**

Students with outstanding balances not totally funded by the Early Registration Payment Deadline for Fall, Spring, and Summer credit terms are subject to drop for non-payment (DNP) from **all** courses the day after the published Early Registration Payment Deadline, regardless of whether a partial payment(s) has been made.

During Regular and Late Registration, including CE terms, regardless of course/session start date, registration and payment activity are calculated on a daily reporting cycle. An unpaid balance on **one (1)** class at the close of the business day may cause the student to be dropped from all classes in the same day/reporting period, including those for which the student previously paid. For example, if a student registers for three (3) credit hours or a CE course at 9 a.m., pays Collin College in full, and then registers for three (3) additional credit hours or another CE course at 10 a.m. and does not pay the additional registration at the time of registration, **all six (6) credit hours and/or both CE courses** are subject to DNP.

Additionally, if a student drops a course when the refund amount is less than 100 percent and receives a partial credit on the account for the dropped course, then adds a new course and does not pay the full amount due for both the dropped course and the added course, the registered course may be DNP.

If a student is dropped from a class(es) for nonpayment of tuition, it is the student's responsibility to re-register for classes. There is no guarantee a seat will remain available in the original course(s) for which the student had registered.

### **COUGARPAY ACCESS AND SERVICES**

For students' convenience, student account services are offered and managed in a secure online site accessible from CougarWeb. Student account services available in the CougarPay site include viewing current charges resulting from account activity; accessing e-bills; paying account balances; initiating promissory note installment plans (when available); establishing an e-Refund account to expedite receipt of refunded monies; authorizing limited access to family members assisting with account activity; and opting in for 1098-T electronic delivery, for eligible students.



Students are encouraged to explore the CougarPay site and the many services available.

Follow the instructions below to access the secure site:

1. Go to CougarWeb (<https://cougarweb.collin.edu>) and log in with the student's assigned Collin College username and password.
2. From the Student Quick Links select CougarPay (Manage Payments & eRefunds).
3. Select Collin College Account Suite bar to enter the secure payment portal.
4. Select the tab for the desired service and follow the prompts.

### ACCOUNT STATEMENTS AND BILLS

Collin College email is the official means of communicating with students and providing billing information for credit students is through their college assigned email address. To activate automated email account notifications, students should initiate at least one (1) login to the CougarPay site. E-bills are generated monthly for any credit student account with a positive or negative balance at that moment in time. Student account history provides real-time account balances as registration or payment/refund activity occurs. Students are responsible for complying with payment deadline requirements, even if an e-bill is not received. Payment deadlines are available on Collin College's academic calendar located at [www.collin.edu/calendars/](http://www.collin.edu/calendars/).

### PAYMENT POLICIES

Collin College accepts cash, check, cashier's check, money order, and MasterCard, VISA or Discover payments not to exceed the tuition and fee charges and/or service charges on the student's account. Partial payments are accepted, but the full account balance must be paid in compliance with payment deadline requirements. When writing a check or using a credit card, the student must show a picture identification card (ID) and provide his or her College Wide Identification (CWID) number.

Collin College does not accept American Express, checks issued by credit card companies, or two-party, out-of-state, or temporary paper checks. Collin College reserves the right to refuse any out-of-state check, including corporate checks. Collin College may refuse or restrict check payments on any account on which a check payment was not honored by the originating financial institution or for payment of any past due account balance.

Incomplete and/or unsuccessful payments, including credit card challenges of selected services, may result in additional fees and/or account or service restrictions.

Payments by paper check are processed through the Automated Clearing House (ACH). For paper checks, the

Texas driver's license number of the person signing the check and the student's CWID and local address must be written on the check. If the student prefers to not provide the CWID on the check, payment may be submitted by web check, cashier's check, or money order. Students requiring payments from out-of-state financial accounts should pay by web check. Check writing privileges will be permanently revoked for students with three (3) or more insufficient funds, rejected, or returned paper or web check payments. Accounts with unpaid balances due to unsuccessful check payments may be submitted to the Justice of the Peace and subject to their laws, rules, and penalties for debt resolution.

Students may also set up authorized users in CougarPay. Authorized users may make credit card or web check payments on an authorized student's account for tuition and fee charges.

### PAYMENT METHODS

Collin College accepts the following methods of payment for tuition, fees, and services:

1. Secure online payment is the recommended method. Convenient online credit card or web check payments may be made 24/7 via the CougarPay secure payment portal accessed through CougarWeb (<https://cougarweb.collin.edu>).
2. In-person payments by cash, credit card, check, or money order may be made at any Collin College Bursar/Cashier's Office location during posted business hours.
3. Mailed checks or money orders are accepted with the same requirements as any paper check and are recorded as of the date received, not the postmark. Checks should be mailed to:
 

Collin College  
Attn: Bursar  
P.O. Box 869055  
Plano, TX 75086-9055
4. Drop boxes are located outside the Bursar/Cashier's Offices at the Frisco and Plano campuses. Drop box payments may be made by check, money order, or cashier's check only. Each payment must include the student's name and CWID number at the top. Drop box payments submitted after 4 p.m. may be posted and dated the next business day.
5. Financial Aid and/or scholarship awards noted on the student's account as Authorized/Anticipated Aid and/or paid amounts for the corresponding term are considered as eligible funding. Students

receiving these financial aid and/or scholarship awards sufficient to cover all of the tuition and fee charges do not need to make an additional payment. Students are responsible for completing any financial aid application and/or acceptance process(es) and maintaining current enrollment status.

Authorized financial aid funds for a credit student with certified course activity disburse to the student's Collin College account five (5) to ten (10) business days after the term/mini-sessions census date. Unpaid charges on the student's account will be deducted from any resulting financial aid credit, and then any remaining credit balance will be processed for refund within 10 days.

CE Financial Aid awards are for course costs only and are not eligible for student refunds.

Student accounts with a scholarship credit remaining from an earlier term should verify with the Collin College Foundation Office or other sponsoring department/entity whether those funds may be used for the new term. For more information, see the [Financial Aid and Veterans Services](#) and [Scholarships](#).

6. Gift/prepaid MasterCard, VISA, or Discover card payments are accepted. However, students should not discard the used gift/prepaid card. If a refund is necessary, the amount will be returned to the original gift/prepaid card.
7. During early registration, students may make partial payments as their budgets allow, but the full amount due should be paid by the early registration payment deadline. Paying in increments during early registration provides a no fee, no contract informal payment plan for students.
8. Promissory note installment plans are available for students who prefer not to pay the full amount due by the required payment deadline. The promissory note installment payment plans are available online in CougarPay prior to the Fall, Spring, and Summer credit terms. At the time of plan origination, the student must complete an installment promissory note, pay 50 percent of all tuition and fees plus a \$25 non-refundable processing charge, and save a payment method for automatic installment payments. Two (2) additional payments of 50 percent of remaining tuition and fees will be due on future predetermined dates. If the student adds a

course(s) after initiating the installment plan, 50 percent of the new tuition and fee charges incurred is due at the time of registration to ensure course registration status.

The installment promissory note and initial payment for early registration activity must be completed on the specified deadline for each term. After the deadline, the installment agreement and payment must be completed at the time of registration.

Making a partial payment on or after the payment deadline without completing the promissory note does not initiate a payment plan or meet funding requirements.

Stopping a check or credit card payment will not cancel the installment plan. Any credit resulting from dropped or withdrawn courses will be applied to unpaid charges.

Official grades and transcripts may be withheld until all installment plan payments have been made, and default may result in course withdrawal.

A student may not apply for the Tuition Installment Plan and the Emergency Tuition Loan (if/when available) in the same term.

9. Third (3rd) Party (TP) funding is accepted if a valid TP agreement between an entity and Collin College is established and/or a voucher from the business or agency verifying the student's eligibility for funding is presented each term to the Bursar/Cashier's Office in compliance with payment deadline requirements.

Students are responsible for any amount owed if the sponsoring agency does not remit payment in full.

Students with TP sponsors who pay for books and/or supplies must meet the Barnes & Noble College Bookstore's TP funding requirements. For more information, contact the preferred campus bookstore.

10. Post 9/11 veteran education benefits are acceptable funding for students with documented eligibility. Eligible students must contact a campus Bursar/Cashier's Office or email [cashier@collin.edu](mailto:cashier@collin.edu) each term to authorize use of veterans' benefits.
11. International currency payments are accepted through Collin College's partnership with Flywire.

This partnership allows international students to pay securely from any country and bank in their home currency. Payments for an amount equal to current student account charges at Collin College may be paid through Flywire Payment and must be received in the Bursar/Cashier's Office by the applicable payment deadline. For more information, go to <https://www.flywire.com/pay/Collin>.

12. College savings/529 plan check payments are accepted and processed with the same requirements and restrictions as personal paper check payments on the student's account.
13. Exemptions and waivers for qualified students may reduce account balances. Collin College offers numerous state and local Board authorized tuition and/or fee exemptions and waivers for eligible students. A list of exemptions and waivers offered at Collin College, including the appropriate office to contact, brief eligibility requirements, the nature of the exemption or waiver offered, and the authorizing citation or policy, is available online at [www.collin.edu/bursar/tuitionwaiverexemptionsrebate.html](http://www.collin.edu/bursar/tuitionwaiverexemptionsrebate.html).

## REFUNDS

**Credit term refunds** are calculated per state mandated rules. One hundred (100) percent refunds (less non-refundable fees) are only issued for courses dropped prior to each term or mini-session's start date. Each term or mini-session's start date is based on the week the course begins and not the first (1st) day of an individual's class. As of 12:01 a.m. on the first (1st) day of the term/mini-session, refunds assessed for dropped or withdrawn courses will be reduced to 70 percent and then graduated down to zero (0) percent, per the THECB refund rules shown below.

THECB Refund Rules for Credit Course Drop/Withdrawal Percentages				
Course Length (# of Weeks)	100%	70%	25%	0%
	Prior to Class Day	Thru Class Day	Thru Class Day	As of Class Day
16 OR MORE	1	15	20	21
15 WEEKS	1	14	19	20
14 WEEKS	1	13	17	18
13 WEEKS	1	13	16	17
12 WEEKS	1	12	15	16

11 WEEKS	1	10	14	15
10 WEEKS	1	9	12	13
9 WEEKS	1	9	11	12
8 WEEKS	1	8	10	11
7 WEEKS	1	7	9	10
6 WEEKS	1	5	7	8
5 WEEKS	1	5	6	7
4 WEEKS	1	4	5	6
3 WEEKS	1	3	4	5
2 OR LESS	1	2	N/A	3

Note: Sunday is only counted if it is the first (1st) day of the course and only the first Sunday class day is counted. Saturday is not counted for Summer terms unless the course begins on a Saturday, in which case the first (1st) Saturday will be counted.

**CE term refunds** are calculated per Collin College's published refund rules. Courses dropped prior to the course start time are eligible for a 100 percent refund. As of the course start date/time, CE courses may not be dropped and are not eligible for any refund percentage.

Students should consider the financial consequences before making schedule changes, including changes based on campus, professor, and/or date or time convenience. Students in cancelled classes who do not add another class will automatically be dropped and receive a full refund credit (i.e., 100 percent minus non-refundable fees), which will be included in the scheduled refund process. Any credit(s) generated on a student's account may be applied to outstanding charges before a refund is issued.

Registration refund processing for a credit term begins approximately three (3) weeks after registration opens. CE course refunds are processed on a continuing weekly basis. Eligible credit amounts from registration and/or residency changes may take up to 30 days to be refunded. Financial aid refund processing begins approximately one (1) week after the primary term's census date and after course activity is certified by faculty. Refunds are generally issued in the same form as the payment received. However, system processes may result in refund types that vary from the initial payment type (e.g., an electronic refund to a saved refund account has priority over a credit card refund after financial aid for a term is posted to the student's account). Cash and check payments will be refunded electronically when authorized. Students who do not receive a credit card refund and/or do not authorize an electronic refund will be issued a paper check. Checks are mailed two (2) to five (5) days after electronic refunds are processed to the student's permanent address on file with the Student and Enrollment Services Office. To expedite refunds, students are encouraged to set up electronic

refunds on the CougarPay site. Note: Sunday is only counted if it is the first (1st) day of the course (and only the first class day Sunday is counted). Saturday is not counted for Summer terms unless the course begins on a Saturday, in which case the first (1st) Saturday will be counted.

**CE term refunds** are calculated per Collin College's published refund rules. Courses dropped prior to the course start time are eligible for a 100 percent refund. As of the course start date/time, CE courses may not be dropped and are not eligible for any refund percentage.

Students should consider the financial consequences before making schedule changes, including changes based on campus, professor, and/or date or time convenience. Students in cancelled classes who do not add another class will automatically be dropped and receive a full refund credit (i.e., 100 percent minus non-refundable fees), which will be included in the scheduled refund process. Any credit(s) generated on a student's account may be applied to outstanding charges before a refund is issued.

Registration refund processing for a credit term begins approximately three (3) weeks after registration opens. CE course refunds are processed on a continuing weekly basis. Eligible credit amounts from registration and/or residency changes may take up to 30 days to be refunded. Financial aid refund processing begins approximately one (1) week after the primary term's census date and after course activity is certified by faculty. Refunds are generally issued in the same form as the payment received. However, system processes may result in refund types that vary from the initial payment type (e.g., an electronic refund to a saved refund account has priority over a credit card refund after financial aid for a term is posted to the student's account). Cash and check payments will be refunded electronically when authorized. Students who do not receive a credit card refund and/or do not authorize an electronic refund will be issued a paper check. Checks are mailed two (2) to five (5) days after electronic refunds are processed to the student's permanent address on file with the Student and Enrollment Services Office. To expedite refunds, students are encouraged to set up electronic refunds on the CougarPay site.

### **DELINQUENT ACCOUNT/COLLECTION**

Accounts not paid when due are subject to holds preventing future registration, receipt of diploma, and/or access to grades and transcripts. Additionally, the student's course enrollment status may be changed to drop for non-payment (DNP) or withdrawn. Students who fail to pay any monies owed by the due date and/or fail to make acceptable payment arrangements to bring their accounts current may have their delinquent accounts referred to an outside collection agency and/or reported to the national credit bureaus. Monies owed include any unpaid amount on the student's account, including, but not limited to, assessed charges for qualified tuition and related education

expenses, including resident housing and/or meal plan charges, and/or adjustments to financial aid awards and/or amounts not covered under an approved and eligible third (3<sup>rd</sup>) party funding agreement. If a student's account is referred to a third (3<sup>rd</sup>) party for collection, a collection fee will be assessed and will be due in full at the time of the referral to the third (3<sup>rd</sup>) party. Students are responsible for all late fees, assessed collection fees, attorney fees, interest, and any costs and charges necessary for the collection of any amount not paid when due. The collection fee will be calculated up to the maximum amount permitted by applicable law, but not to exceed 30 percent of the amount outstanding. If a lawsuit is filed to recover an outstanding balance, the student will also be responsible for any costs associated with the lawsuit. The student further understands and agrees that:

- Collin College may apply monies due to the student from Collin College to any delinquent amount due until the principal account balances, interest, and costs are paid in full;
- Collin College may pay any balance due on the student's account from any Title IV funds awarded and disbursed to the student's account in the same academic award year, including an amount up to \$200 for educationally related expenses incurred in a prior financial aid award year;
- any financial obligation to Collin College constitutes an educational loan to assist in financing education and, therefore, is not dischargeable, pursuant to [United States Bankruptcy Code § 523\(a\)\(8\)](#);
- all disputes about registration or payment will be governed in accordance with the laws of the State of Texas, without regard to the principles of conflicts of laws of the State of Texas; and
- the venue for any lawsuit regarding collection of a delinquent debt will be in Collin County, Texas.

### **FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA) AND STUDENT PAYMENT ACCOUNTS**

The [Family Educational Rights and Privacy Act \(FERPA\)](#) affords eligible students certain rights with respect to their education records, including student financial accounts. In accordance with [FERPA](#), a student's account and payment information may only be provided to the student. However, a student may grant a family member(s) or other designated individual(s) access to view the student's account information and/or make payments by designating the family member(s) or individual(s) as an

authorized user(s) on the CougarPay site. As authorized users, individuals are provided unique login information to access the student's account and make payments. For more information, see CougarPay Access and Services above and the [\*Family Educational Rights and Privacy Act \(FERPA\) and Student Education Records\*](#) section in this student handbook.

### **BURSAR/CASHIER SERVICES**

Bursar/cashier's staff provide support services for students' financial accounts, including payments and refunds. Course registration and residency classification questions should be addressed to a Student and Enrollment Services staff member. Financial aid questions should be addressed to a Financial Aid and Veterans Services Office staff member. For more information or assistance with student account payments and refund processing, contact [cashier@collin.edu](mailto:cashier@collin.edu).

### **TUITION AND FEE CHARGES**

To see a current list of tuition and fees, visit <https://www.collin.edu/bursar/tuition.html>.

### **NON-FUNDABLE COURSE TUITION**

Students enrolled in courses not eligible for funding by the State of Texas will be charged a higher tuition rate for each course at a rate of \$50 per credit hour. These include three-time repeat courses, excess hour courses, and local needs courses not approved by the Texas Higher Education Coordinating Board for funding. See the Collin College website <https://www.collin.edu/gettingstarted/register/withdrawal.html> for a complete list of courses charged the higher tuition rate.

### **EXEMPTIONS AND WAIVERS**

Partnering with the State of Texas to ensure affordability of higher education for all students, Collin College offers numerous State and local Board authorized tuition and/or fee exemptions and waivers for eligible students. The exemption and waivers table outlines the exemptions and waivers offered, the Collin College office to contact, summary data on eligibility, nature of exemption/waiver offered, and authorizing citation/policies.

Eligible students should contact the responsible Collin College office to ascertain what documentation is required to prove eligibility. Proof of exemption/ waiver eligibility must be provided for each term of attendance at Collin College. Students are responsible for meeting any eligibility requirements and providing required documentation to Collin College in compliance with payment deadline requirements to consider exemptions/waivers as a source of funding for the term.



### EXEMPTIONS AND WAIVERS AVAILABLE AT COLLIN COLLEGE

Optional or Mandatory	Exemption or Waiver	Description	Office to Contact	Texas Residency Requirement	Exempted/ Waived <i>(only applies to state funded courses)</i>	Statute Program	Texas Statute/ Administrative Rules
O	E	Exemption-Ad Valorem Residency	Student & Enrollment Services	No	To resident tuition rate only	Ad Valorem	TEC 130.0032(a)
M	E	Exemption-Adoption	Financial Aid	No	Tuition and fees (excludes pass thru fees)	Adopted	TEC 54.367
M	E	Exemption-Child of Clinical Nursing Preceptor	Financial Aid	Yes	Tuition, not to exceed \$500	Preceptors and/or their Children	TEC 54.356/Ch 22, Sub P
M	E	Exemption-Child of Disabled Fire/Police Officer	Financial Aid	No	Tuition and fees (excludes pass thru fees)	Children of Disabled Firemen/Peace Officers	TEC 54.351
M	E	Exemption-Child of POW/MIA	Financial Aid	Yes (POW sponsor)	Tuition and fees (excludes pass thru fees)	Children of POW's and MIAs	TEC 54.343
M	E	Exemption-Child of Professional Nursing Staff	Financial Aid	Yes	Tuition pro-rated per employment percentage	Children of Nursing Faculty	TEC 54.355/Ch 22, Sub O
M	E	Exemption-Child, Hazlewood Legacy	Financial Aid	Yes	Tuition and course lab fees only (not funded by Chapter 33 benefits)	Hazlewood-Legacy recipients	TEC 54.341 (k)
M	E	Exemption-Child/Spouse of Deceased Public Servant	Financial Aid	No	Books, tuition, and fees	Dependents of Deceased Public Servants	TEC 54.354
M	E	Exemption-Clinical Nursing Preceptor	Financial Aid	Yes	Tuition, not to exceed \$500	Preceptors and/or their Children	TEC 54.356/Ch 22, Sub P
O	E	Exemption-Contract Training	Center for Workforce & Economic Development	No	To resident tuition rate for eligible courses only	Agreement with Junior College District	TEC 130.0081
M	E	Exemption-Deaf and Blind	ACCESS Office	Yes	Tuition and fees (excludes pass thru fees)	Deaf or Blind	TEC 54.364
M	E	Exemption-Disabled Firefighter	Financial Aid	Yes	Tuition and fees (excludes pass thru fees)	Permanently disabled during performance of job duties	TEC 54.352
M	E	Exemption-Disabled Police Officer	Financial Aid	Yes	Tuition and fees (excludes pass thru fees)	Permanently disabled during performance of job duties	TEC 54.352

O	E	Exemption-Dual Credit to In-County Tuition	Student & Enrollment Services & Academic Partnership	No	To in-district tuition rate only	Dual Enrollment-- Jr College	TEC 130.008/54.216
M	E	Exemption-Fire Science Undergraduate	Financial Aid	TX Employee	Tuition and lab fees only	Firefighters taking Fire Science Courses	TEC 54.353/Ch 22, Sub T
M	E	Exemption-Foster Care Undergraduate	Financial Aid	No	Tuition and fees (excludes pass thru fees)	Foster Care/TX Dpt Family Protective Svcs	TEC 54.366
M	E	Exemption-Hazlewood Dependent, Disabled sponsor	Financial Aid	Yes	Tuition and course lab/special fees only (not funded by Chapter 33 benefits)	Hazlewood-child/spouse of disabled	TEC 54.341 (a-2) and (b)(1)
M	E	Exemption-Hazlewood Eligible Dependent	Financial Aid	Yes	Tuition and course lab/special fees only (not funded by Chapter 33 benefits)	Hazlewood-child/spouse of deceased	TEC 54.341 (a.2) and (b)(1)
M	E	Exemption-Hazlewood UG	Financial Aid	Yes at time of enlistment	Tuition and course lab/special fees only (not funded by Chapter 33 benefits)	Hazlewood-Veterans	TEC 54.341 (a)
O	E	Exemption-High School Concurrent	Academic Partnership & Testing Center	No, attending local high school and on free and reduced lunch	Tuition and fees (excludes pass thru fees)	Dual Enrollment-- Jr College	TEC 130.008/54.216
O	E	Exemption-Highest Ranking Graduate	Student & Enrollment Services	No-TX high school grad	Tuition only	Highest Ranking HIS Scholar	TEC 54.301
M	E	Exemption-Law Enforcement	Financial Aid	TX Employee	Tuition and lab fees only	Peace Officer Exemption	TEC 54.3531
O	E	Exemption-Non-funded Course Tuition	Financial Aid (hardship) Student & Enrollment Services (graduation)	Yes	Board approved excess tuition charges for identified course	Approved exceptional circumstances (hardship or term prior to graduation)	Texas Statute/ Administrative Rules Title 19, Part 1, Chapter 13(f)
M	E	Exemption-Prisoner of War	Financial Aid	Yes	Tuition and fees (excludes pass thru fees)	Ex-Prisoners of War	TEC 54.342
O	E	Exemption-Senior Citizen, 65 and older	Student & Enrollment Services	Yes	Tuition only for up to 6 hours	Senior Citizen 65+ for 6 hours	TEC 54.365 (b and c)

M	E	Exemption-Texas Guaranteed Tuition Plan Residency	Student & Enrollment Services, then Bursar/Cashier	No	To resident tuition rate only	Texas Prepaid Plan	TEC 54.621.c
M	E	Exemption-Texas Tuition Promise Fund	Bursar/Cashier	No	Tuition charges which exceed allowed program payment	Texas Prepaid Plan	TEC 54.621.c
O	E	Waiver-Board Reciprocal County Agreement	Student & Enrollment Services	No	To resident tuition rate only	Inter-institutional Academic Programs	TEC 54.368/130.0032
O	E	Waiver-Collin Support Staff	Student & Enrollment Services	Yes	Out-of-county to in-county tuition only	Community College District Employees	TEC 130.0851
O	W	Waiver-Competitive Scholarship	Athletic Department	No	Non-resident to resident tuition rate	Competitive Scholarship	TEC 54.213/Ch 21, Sub SS
M	W	Waiver-Continuous Military Dependent	Student & Enrollment Services	No, continuous domicile required	To resident tuition rate only	Military in Texas	TEC 54.241(c)
M	W	Waiver-Economic Development	Student & Enrollment Services	No	To resident tuition rate only	Economic Development as identified by the State	TEC 54.222
M	W	Waiver-Faculty and Dependents	Student & Enrollment Services	No	To resident tuition rate only	College Teachers, Profs, etc. and dependents	TEC 54.211
M	W	Waiver-Foreign Service	Student & Enrollment Services	No	To resident tuition rate only	Foreign Service Officer	TEC 54.206
O	W	Waiver-Good Neighbor	Student & Enrollment Services	No	Tuition as approved by THECB	Good Neighbor/ Students from Other Nations of the American Hemisphere	TEC 54.331/CH 21, Sub K
M	W	Waiver-Military and Dependents	Student & Enrollment Services	No, but active duty orders or continuous presence	To resident tuition rate only	Military in Texas	TEC 54.241
M	W	Waiver-NATO Alien	Student & Enrollment Services	No	To resident tuition rate only	NATO Members and Families	TEC 54.232
M	W	Waiver-Teacher Research Assistant	Student & Enrollment Services	No	To resident tuition rate only	Teaching and Research Assistants	TEC 54.212
M	E	Waiver-Texas National Guard Tuition Reimbursement	Bursar/Cashier	No	Tuition and fees up to amount allocated by adjutant general	National Guard Waiver	TEC 54.345
M	W	Waiver-Veterans and Dependents	Student & Enrollment Services	No, DD214 plus	To resident tuition rate only	Military in Texas	TEC 54.241(i and k)



## FINANCIAL AID AND OTHER RESOURCES

### **FINANCIAL AID**

As a service to Collin College students, the Financial Aid Office administers a comprehensive financial aid program that includes grants, loans and part-time employment for those who meet the eligibility requirements. A primary purpose of the Collin College 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.

If students have questions or need assistance, they can contact the Financial Aid Office via phone or visit any campus Financial Aid Office. Financial aid staff is trained to assist students in realizing their educational goals by answering questions, providing appropriate forms and instructions, and referring students to other resources as needed.

For more information, please visit the Financial Aid Office webpage at: <https://www.collin.edu/getting-started/financialaid/>.

Students receiving financial aid should not withdraw from all of their classes without first consulting the Financial Aid Office. In addition, all financial aid students must become familiar with the standards of academic progress required to remain eligible for financial aid.

Federal law requires a financial aid student to complete at least 60 percent of each semester. If a 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. A financial aid student who earns a grade of "F" for all courses in a semester must have at least one (1) instructor provide proof to the Financial Aid Office that the student was in an academically related activity for 60 percent of the semester. Otherwise, that student will owe money back to the financial aid program.

### **APPLYING FOR AID**

Students can apply for aid online using the Free Application for Federal Student Aid (FAFSA) located at <http://www.fafsa.ed.gov>. Collin College's Title IV School Code is **016792** and must be reported on the FAFSA application in order for aid to be processed by Collin College.

### **DEADLINES**

Students must apply for financial aid each year. Students wanting to receive priority consideration should apply as early as possible. The new FAFSA is typically available Oct. 1 each year. Students who meet the priority deadline will have aid in place before the payment deadline.

### **FINANCIAL AID PROGRAMS – FEDERAL ASSISTANCE**

Actual award amounts are determined by federal guidelines, a demonstration of need, and the student's enrollment. Collin College participates in the following financial aid programs:

#### **FEDERAL PELL GRANT**

Eligibility for the Pell Grant is based on the financial need of the student and/or the student's family, as well as the student's enrollment status.

Financial need is determined by the U.S. Department of Education from information provided on the student's FAFSA (Free Application for Federal Student Aid). The standard formula, established by Congress, produces an Expected Family Contribution (EFC) that indicates how much a student, and their spouse or family, is expected to contribute financially toward the cost of their education. EFC's within a particular range (varies by year and consists of those students determined to have the "most need") will be eligible for Pell Grant provided the student meets all other eligibility criteria.

In general, only undergraduate students are eligible to receive a Pell Grant. A student who has earned a baccalaureate or a first professional degree is not eligible to receive a Pell Grant.

#### **FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITIES GRANT (FSEOG)**

FSEOG is limited by the availability of funds and is awarded to those students considered to have exceptional financial need. Priority is given to federal Pell Grant recipients.

#### **FEDERAL WORK STUDY**

Students demonstrating financial need may be considered for the work study program. Students are employed part-time at various jobs on campus or at other College District approved sites. Students are allowed to earn the amount designated in their award package as long as they maintain a 2.0 GPA and are enrolled in at least six credit hours.

#### **FEDERAL DIRECT LOAN PROGRAM**

This program permits students to borrow low-interest loans from the Department of Education provided the student is enrolled and attending at least half time and otherwise meets eligibility criteria. The federal government pays interest on the subsidized (need based) amount borrowed until the student graduates or ceases to be enrolled at least half time. Unsubsidized loans (non-need based) are also available to otherwise eligible students.

Students are responsible for the interest accruing on these loans while attending school.

### **DIRECT PARENT LOANS TO UNDERGRADUATE STUDENTS (PLUS)**

PLUS loans are available to parents who want to borrow money to help defray the cost of their dependent children's education. Like Direct loans, PLUS loans are offered by the Department of Education. Parents may borrow up to the cost of attendance minus any other educational resources and financial aid awarded to students. These loans have a higher interest rate than direct loans and the borrower is responsible for paying all the interest that accrues.

### **FINANCIAL AID PROGRAMS – STATE ASSISTANCE**

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

The TPEG program is a state financial aid program designed to assist students in attending state-supported colleges. Students must demonstrate financial need and be making satisfactory academic progress toward their educational goals. The actual amount of the grant varies depending on the availability of funds to the college, the student's financial condition and enrollment, and other aid, the student may be receiving.

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

Community college students working on their first associate's degree may be eligible for this grant if they:

- Are a Texas resident
- Do not have a felony drug conviction
- Are within their first 30 hours of college
- Registered for Selective Service, if required
- Have an Expected Family Contribution (EFC) as determined by FAFSA of \$4,800 or less for initial awards and unmet need for renewal awards
- Are enrolled at least half-time (six hours).

Students who meet the qualifications are eligible for up to 75 hours at a community college. Additionally, a student receiving this grant may become eligible for the Texas Grant once they transfer to a university. For the first year, students must meet the college's Satisfactory Academic Progress (SAP) requirements. (Please refer to the Institutional Policy of Satisfactory Academic Progress listed below for more information.) To continue receiving this grant, the student must complete 24 hours each academic year, maintain a 2.5 cumulative GPA, and complete at least 75 percent of their coursework.

For additional information about either of the above grants, please contact the Financial Aid Office.

### **SATISFACTORY ACADEMIC PROGRESS (SAP)**

School policy: 34 CFR 668.16(e); Student eligibility: 34 CFR 668.32(f), 34 CFR 668.34

To be considered administratively capable, a school must have a satisfactory academic progress policy for a Federal Student Aid (FSA) recipient that is the same as or more strict than the school's standards for a student enrolled in the same educational program who is not receiving assistance under a FSA program.

#### **Basic Elements of a Satisfactory Progress Policy**

According to these federal rules, a school's policy must contain certain basic elements:

- a **qualitative component** consisting of grades or comparable factors that are measurable against a norm (a GPA component)
- a **quantitative component** that consists of a maximum time frame in which a student must complete his or her educational program, subdivided into increments (aka the 150 percent rule)
- a **measurement of progress**, meaning the student must be completing a certain percentage of classes to be considered making adequate progress.

#### **STUDENT ELIGIBILITY**

To be eligible for Federal Student Aid (FSA) funds, a student must make satisfactory academic progress as defined by the school.

#### **WHAT IS YOUR SAP STATUS?**

An explanation of the different SAP statuses can be found on the college's website at [https://www.collin.edu/shared/shared\\_finaid/pdf/Explanation\\_of\\_SAP.pdf](https://www.collin.edu/shared/shared_finaid/pdf/Explanation_of_SAP.pdf). Students can also see this explanation in the financial aid section of their CougarWeb.

### **INSTITUTIONAL POLICY OF SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL AID (EFFECTIVE NOVEMBER 2013)**

This is an official statement of Collin College policy related to the financial aid operational definition of Satisfactory Academic Progress for students at Collin College effective for 2013-14 and subsequent academic years.

At the end of each period of enrollment, the Financial Aid Office evaluates satisfactory academic progress of all enrolled students. This evaluation considers Financial Aid GPA, the percentage of hours completed and maximum allowed hours attempted. Please note the evaluation takes place at the end of Fall, Spring and Summer III.

At the end of each period of enrollment, a student must meet the following requirements:

### **I. Grade Point Average (GPA) Requirement**

A student must maintain a Financial Aid GPA of 2.0 or higher in order to receive federal student aid. The Financial Aid GPA is the calculation of grades from all credit coursework, including developmental and ESL coursework. Please note, that the Financial Aid GPA may differ from the Academic GPA.

### **II. Percent Completion Requirement**

A student must complete 67 percent of all attempted hours; calculated by dividing the total number of hours the student has successfully completed by the total number of hours attempted.

- a. Successfully completed hours: Passing grades of A, B, C and D, (including developmental and ESL coursework), accepted transfer coursework and repeated courses (one time only for previously passed course).
- b. Attempted hours: Withdrawals, grades of F, incomplete courses, repeated courses, courses taken during the Summer sessions, developmental and ESL coursework, accepted transfer coursework and all hours for which student received passing grades are counted toward attempted hours. Please note, all periods of enrollment count when assessing progress, even periods in which a student does not receive federal student aid.

### **III. Maximum Time Frame Requirement**

The maximum number of hours a student may attempt is limited to 150 percent of the published length of the program. For example, a certificate program that requires 30 hours would have a maximum time frame of 45 credit hours.

All hours, including those taken while not receiving Title IV aid, those taken under a different major, hours attempted during Summer sessions, remedial hours, ESL hours and hours transferred in from previous/other institutions, etc., shall be counted towards total hours attempted and earned. Students that reach the maximum time frame are immediately given a status of "Exceeds Max Hours," making them ineligible for any student aid, including student loans, state aid, etc.

### **COMPLETE WITHDRAWAL**

A student who completely withdraws from a semester while on student aid or receives grades of "F," "W," and/or "I" in all coursework in a given semester *will immediately be placed on financial aid suspension* and is no longer eligible to receive any student aid. This includes all Summer coursework.

This type of suspension can only be removed from the next semester of enrollment with an appeal for rare, extenuating circumstances. Note: All outstanding charges must be paid

before an appeal can be considered. If the appeal is approved, the student will be placed on academic plan for one semester. At the end of that semester, the student must maintain the SAP requirements or they will lose eligibility permanently.

Students in this category who do not have a rare, extenuating circumstance may be able to regain their student aid eligibility in a future term. A student would need to pay for and complete courses on their own until they meet the SAP requirement of having a 2.0 cumulative GPA and completing 67 percent of all hours attempted. A student that is making the SAP requirements at the time of suspension would need to complete one semester on their own before their financial aid would be reinstated.

### **FAILURE TO MEET THE STANDARDS OF ACADEMIC PROGRESS – GPA AND PERCENT COMPLETION**

A student who fails to meet the requirements in I and/or II above will automatically be placed on warning for the next semester of enrollment. Students on warning will still be able to receive student financial aid they would otherwise be eligible to receive.

At the end of the next semester of enrollment, the student must be making Financial Aid satisfactory academic progress (Financial Aid GPA of 2.0 or greater and a cumulative percent completion of 67 percent or higher). If the student is not making satisfactory academic progress by the end of the semester, they will automatically be placed on financial aid suspension and will no longer be eligible for any student aid including loans, state aid, etc.

Students on financial aid suspension for Financial Aid GPA and/or percent completion will remain on suspension until such time that the Financial Aid GPA and/or percent completion reaches the minimum requirements. Once the minimum requirements are met, the student will again be considered to be in good standing.

### **THE APPEAL PROCESS – GPA, PERCENT COMPLETION AND COMPLETE WITHDRAWAL**

In rare circumstances, a student is allowed to appeal his/her financial aid suspension. These circumstances may include a serious personal illness documented by a doctor, the serious illness of an immediate family member where the doctor documents that the student was required to give care to the family member and other rare, exceptional circumstances that prevent a student from attending class. The circumstances must have occurred during the semester(s) of attendance.

Please note that appeals will not be accepted without documentation and that appeals submitted with documentation are not automatically approved. The

deadline for submitting an appeal is 30 days after the official first day of classes for a semester.

A student who meets the condition to appeal must complete and submit the Financial Aid Satisfactory Academic Progress Appeal form, along with **required documentation** that supports the rare circumstances, to the Financial Aid Office. The appeal must also contain a **typed** letter explaining the circumstances that the student faced and what measures have been taken so that the same problem does not negatively impact their academic progress.

#### **THE APPEALS COMMITTEE**

An appeals committee has been established at Collin College to review all financial aid appeals. The committee will meet as needed to review the appeals. The determination of the appeal will be sent to the student through CougarWeb. Appeals without documentation or that do not meet the requirements of the appeal process will automatically be denied.

A student, whose appeal is approved for GPA or percent completion, must complete a financial aid academic plan. In order to remain eligible for financial aid while on an academic plan, the student may not withdraw from any coursework and must make a grade of at least “C” in every class until the student is back in good standing. A student whose appeal is approved for maximum timeframe will have the approved hours added to the 150 percent of the program length. All decisions of the Financial Aid Appeals Committee are final.

#### **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 percent point in the term. After the 60 percent 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 Direct Loan, Subsidized Direct Loan, Direct Parent PLUS Loan, Pell Grant and SEOG. The student is not responsible for returning funds to any program to which the student owes \$50 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 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.

#### **FINANCIAL AID PROGRAMS – OTHER TUITION EXEMPTIONS**

State tuition waivers and exemptions provide qualifying students with exemptions from certain tuition and fee charges in public colleges.

Beginning with the 2014-2015 year, the State of Texas Legislature updated the rules and requirements for exemptions under SB1210. These rules state that for most types of exemptions, students must:

- Be seeking a degree or certificate
- Have prior credit evaluated and applied toward the degree or certificate\* (this includes both transfer work and any prior credits earned at Collin College)
- Meet the Financial Aid satisfactory academic progress requirement of a 2.0 GPA (excludes hours earned exclusively by examination, hours earned when the student is dual-enrolled and hours earned for developmental coursework)
- Have not completed, at the beginning of each semester, an excess of hours as defined by the school.

\*In order for prior credit to be evaluated, students must submit a degree request form to the Financial Aid office (not to Admissions).

If on the completion of any semester, a student fails to meet any of the above eligibility requirements, the student may not receive the exemption for the next semester in which the student enrolls. Students may become eligible in a subsequent semester if they complete a semester or semesters on their own and are once again meeting the eligibility requirements.

For students with a rare, extenuating circumstance (as described in the Financial Aid section), they may submit an appeal with supporting documentation. See the instructions for submitting appeals in the Financial Aid section of this catalog or on the College’s website at: <http://www.collin.edu/gettingstarted/financialaid/SAP.html>.

Contact either the Financial Aid Office or Student and Enrollment Services for additional information regarding a specific waiver or exemption. A few of the state exemptions and waivers are listed below.

## FINANCIAL AID EXEMPTIONS

Deaf/blind students • adopted students and students who were in foster care • children of deceased or disabled fireman and peace officers • children of prisoners of war or persons missing in action • firemen enrolled in fire science courses • police officers enrolled in law enforcement or criminal justice courses • children of professional nursing staff • Hazlewood Act • orphans of national guard members

## ADMISSIONS WAIVERS

Ad-valorem tax • concurrent enrollment • contract training for out of district students • dual agreement with Dallas County • senior citizen

## VETERANS EDUCATIONAL BENEFITS

Students requesting veterans educational benefits at Collin College should submit all documentation to the Financial Aid (FA) and Veterans Services (VSO) 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 Office.
2. Submit a degree plan request and all required VA forms to the Financial Aid & Veterans Services Office.
3. Ensure all official transcripts from prior institutions are submitted to the degree plan coordinator (Registrar's Office) for transfer evaluation. This includes the Joint Services Transcript or the Community College of the Airforce transcript \*

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

\* A degree plan will NOT be completed until all OFFICIAL transcripts and the DD214 (where applicable) are on file with the Admissions Office. Failure to submit all official transcripts (and the DD214 where applicable) in a timely manner will result in a delay of certification of enrollment and/or non-certification if the student registers for courses for which previous credit may be granted.

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.

Developmental courses will only be certified if the student has assessed into the course(s) and only if the class is a "traditional" class. A traditional class is where the student physically attends the class and a teacher instructs the class at each meeting. Online, pod, flex and blended courses are all considered distance courses (not traditional courses) by the VA. Therefore, they are not eligible for certification. Veteran students' enrollment is certified according to the date of registration as long as the degree evaluation has been completed. Therefore, it is strongly recommended that veteran students register for classes as early as possible each semester.

It is the student's responsibility to notify the Financial Aid & Veterans Services Office whenever they change their schedule (i.e., add or drop classes). The student is responsible for registering for the correct courses. The VA will only pay for courses required for graduation. Please be careful when taking elective course. They may not be eligible for certification.

It is assumed that continuing students want to be certified for any subsequent enrollment unless they notify the Financial Aid & Veterans Services Office in writing. 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.

If the student has not been in attendance for two regular 16-week semesters, additional VA documents will be required, as well as any transcripts from any schools in attendance during the break.

All degree plan changes must be made through the financial aid/veterans affairs office. Please contact the FA/VS Office on campus. Allow at least six weeks for the new degree plan request to be evaluated. It is the student's responsibility to notify the FA/VS Office once the degree plan has been completed.

## VETERANS ACADEMIC PROGRESS

Students receiving veterans benefits must maintain satisfactory academic progress while attending Collin College. Satisfactory academic progress is defined as:

1. 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.
2. 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 non-punitive 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.

3. Withdrawal from a class, whether self-initiated or otherwise, may result in the student being obligated to repay any overpayment of benefits unless the VA approves written extenuating circumstances submitted by the student.
4. Regular class attendance is required to provide necessary documentation of attendance.

### **COLLIN COLLEGE FOUNDATION SCHOLARSHIPS**

Through generous contributions from individuals, corporations and private foundations, the Collin College Foundation awards scholarships to students annually. 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, although limited.

Students are encouraged to visit the Foundation website at <http://www.collin.edu/foundation>. Scholarship applications are accepted online only.

### **ATHLETIC AND DEPARTMENTAL SCHOLARSHIPS**

Scholarships are also available for men’s and women’s basketball and tennis. Athletic Competitive Scholarships are awarded on the basis of athletic ability, contribution to Collin College as a student-athlete, and National Junior College Athletic Association (NJCAA) eligibility.

Scholarships are awarded in compliance with NJCAA by-laws. Contact the Athletic Department for scholarship information. Additional scholarships may be available through academic departments. For more information, contact the respective dean.

## STANDARDS AND PROCEDURES

### ACADEMIC STANDINGS

All students are encouraged to work toward achieving their goals and maintaining scholastic progress throughout their enrollment at Collin College.

#### **GOOD ACADEMIC STANDING**

Students are considered in good academic standing if a 2.0 or higher cumulative grade point average (GPA) is maintained.

#### **ACADEMIC WARNING**

All students whose GPA falls below a cumulative GPA of 2.0 will be placed on Academic Warning at the end of that semester.

#### **ACADEMIC PROBATION**

All students whose cumulative GPA remains below 2.0 after Academic Warning will be placed on Academic Probation. Students whose cumulative GPA remains below 2.0 after being placed on academic probation will continue on academic probation status as long as their semester GPA is 2.0 or higher, or until the Cumulative GPA is again above 2.0.

Student will be limited to a maximum 13 credit hours per semester.

#### **ACADEMIC SUSPENSION**

All students whose cumulative and semester GPA remains below 2.0 after Academic Probation will be placed on Academic Suspension. After remaining out of school for a semester, a student may return on academic probation.

A student on suspension has the right to appeal to the Academic Appeals Committee.

#### **ACADEMIC APPEAL**

Students placed on Academic Suspension have the right to appeal to the Academic Progress Appeals Committee (APAC). The process allows students to appeal an Academic Suspension for unsatisfactory academic progress based upon extenuating circumstances.

Appeals must be received by the deadline of two weeks prior to the start of semester. Decisions made by the Academic Progress Appeal Committee (APAC) are final.

### **TRANSFER STUDENTS**

A student coming in from another college/university will be placed on good standing with Collin College their first semester. After the first semester, the student will follow Collin College's academic standing.

### **AUDITING COURSES**

Students may choose to audit certain classes. A student who is auditing a class(es) will not receive grades or credit for the course, but his or her transcript will indicate the course was audited. A student who is auditing a class(es) will not be required to take tests; however, participation in regular class activities is expected.

Applied music lessons (MUAP), computer systems, Developmental Education (DE), engineering, foreign language, ROTC, sign language, studio arts, and technology classes may not be audited.

Any student intending to audit a course must have completed admissions requirements and be eligible to register for that course in person on the first (1st) day of classes. Audit students are subject to the usual registration process, and must meet all admissions policies and guidelines. A non-refundable audit fee is assessed for each class in addition to regular tuition and fees. Students who audit are not eligible to drop or withdraw from the course or print from computers in the libraries or computer labs.

Students who have already registered for a course as credit may not later change their status to audit. However, audit students may change to credit status prior to the term's census date. Students admitted under special admissions are not eligible to audit courses.

### **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. Please contact Financial Aid or Veteran Affairs for more information.



## 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.

Go to <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 [www.studentclearinghouse.org](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, Collin 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 prior to the census date of the course to qualify for an excused absence. A copy of the state rules and procedures regarding holy days is available from the Student and Enrollment Services Offices. The form for notification of absence from each class under this provision is located at [www.collin.edu/gettingstarted/admissions/forms.html](http://www.collin.edu/gettingstarted/admissions/forms.html).

## GRADING SYSTEM

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.

## Grade Points Per Semester Hour

<b>A</b> Excellent	4
<b>B</b> Above Average	3
<b>C</b> Average	2
<b>D</b> Below Average	1
<b>F</b> Failure	0
<b>W</b> Withdrawn (Not included in GPA or Earned Hours)	0
<b>WS</b> Withdrawal Affected (Not included in GPA or Cumulative Hours Counts in State six W/D limit.)	0
<b>WZ</b> Withdrawn by Department (Not included in GPA or Earned Hours)	0
<b>I</b> Incomplete	0
<b>IP</b> in Progress (0 grade points per semester hour. Student completed 70 percent but has not reached competency.)	0
<b>AD</b> A - Developmental	0
<b>BD</b> B – Developmental	0
<b>CD</b> C – Developmental	0
<b>DD</b> D – Developmental	0
<b>FD</b> F – Developmental	0
<b>AT</b> Excellent	0 (Transfer)
<b>BT</b> Above Average	0 (Transfer)
<b>CT</b> Average	0 (Transfer)
<b>DT</b> Below Average	0 (Transfer)
<b>AU</b> Audit (Not included in GPA or Earned Hours)	0
<b>CR</b> Credit (Included in Earned Hours but not GPA Hours. Used for Advanced Placement, College Level Exam Program, Credit by Exam, Articulated Credit and Tech Prep)	0
<b>P</b> Pass (Not included in GPA or Earned Hours)	0
<b>T</b> Non Course Base TASP remediation	0
<b>X</b> Pending Dean of Student Case	0
<b>XF</b> Administrative Assignment of Failure (Not included in GPA or Earned Hours)	0
<b>XW</b> Administrative Withdrawal (Not included in GPA or Earned Hours)	0
<b>Z</b> No grade reported. Instructor did not assign a grade.	0
<b>ZW</b> Administrative withdraw due to a fraudulent act of scholastic dishonesty. (Not included in GPA or Earned Hours)	0



## 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, 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 long semester, the grade will be changed by the Registrar’s Office to an “F” or other performance grade indicated on the original contract.

## PASS/FAIL GRADE OPTION

Non-degree-seeking students may select a pass/fail grade option for foreign language, sign language, and creative writing courses. When taking a class pass/fail, a letter grade will not be assigned for the course, but the student’s transcript will indicate whether he or she passed or failed the course. 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, the student must complete the appropriate form in the admissions area in the Student and Enrollment Services 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 area in the Student and Enrollment Services Office.

## REPEATING COURSES

Beginning Fall 2016, Texas residents attempting a course more than twice at Collin College are subject to regular tuition plus an additional \$50 per semester credit hour charge. Undergraduate courses attempted at Collin College with a graded status of A, B, C, D, F, I, W (withdrawals after census), and AU (audit) will be evaluated for repeat limits.

Refer to the Collin College website for a complete list of courses exempt from the course repeat tuition and how to qualify for exemptions from the higher tuition rate at

[www.collin.edu/gettingstarted/register/withdrawal.html](http://www.collin.edu/gettingstarted/register/withdrawal.html).

Students in excess of 18 Developmental Education (DE) hours will be assessed the authorized \$50 per hour additional tuition. ESOL students in excess of 27 Developmental Education (DE) hours will be assessed the authorized \$50 per hour additional tuition.

Grades of all courses taken will be recorded on the student’s transcript. When a course is repeated:

- only one (1) course grade will be counted in a student’s grade point average (GPA), and
- the highest grade will be used in GPA calculations.

Courses repeated before the Fall 2008 semester will have only the last grade and credits earned (whether higher or lower) used in computing the GPA and applied toward degree or program requirements.

Veterans should consult the Financial Aid/Veterans Affairs Office before repeating any course. Students planning to transfer to another college or university **should** check repeat policies with a Collin College academic advisor and the receiving institution.

## GRADUATION

Collin College offers Bachelor, Associate of Applied Science (AAS), Associate of Arts (AA), Associate of Arts in Teaching (AAT), and Associate of Science (AS) 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 approved degree plan from the preceding five (5) years as long as they were enrolled during that year; however, students may benefit from graduating under the requirements of the current degree plan. Degrees and certificates that have been deactivated by the Texas Higher Education Coordinating Board (THECB) must be completed within three (3) 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 (GPA) of 2.0 and who completed a minimum of 25 percent of the award coursework at Collin College is a candidate for graduation. Any student who entered Collin College prior to the Fall 2008 semester and had transfer coursework transcribed will have those transfer course grade points included in his or her Collin College GPA.

### **Associate of Arts (AA) and Associate of Science (AS)**

In order for a student to graduate with an Associate of Arts (AA) or Associate of Science (AS) degree from Collin College, he or she must successfully complete all required course hours for the program, have a cumulative 2.0 GPA, and have passed all three (3) areas of the Texas Success Initiative (TSI).

### **Associate of Applied Science (AAS)**

In Associate of Applied Science (AAS) degree programs that do not include a college-level Math course, students must successfully complete all required course hours for the program and have a cumulative 2.0 GPA. For more information, see the [Texas Success Initiative](#) section in this student handbook.

### **Waiver to the Texas Success Initiative (TSI) Requirement**

In the Summer of 2018, the Collin College Policy and Procedure Committee approved a waiver to the Texas Success Initiative (TSI) requirement for graduation. Students meet TSI through the successful completion of a required college-level course with a grade of D or higher.

### **Degree Honors**

Bachelor, Associate of Applied Science (AAS), Associate of Arts (AA), Associate of Arts in Teaching (AAT), Associate of Science (AS), and Associate of Arts or Science in a Field of Study degree honors will be awarded to students with the following cumulative GPA at Collin College:

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

Honors are calculated using all Collin College college-level coursework and transcribed transfer coursework prior to Fall 2008. Grades earned in Developmental Education (DE) courses are not included.

### **Graduation Ceremonies**

Graduation ceremonies are held twice a year. Students who complete their degree requirements in the Fall semester will attend the graduation ceremony in December. Students who complete their degree requirements in Maymester or during the Summer terms will also be invited to participate in the Fall graduation ceremony in December. The Spring ceremony will be held for students who complete their degree requirements in the Wintermester and Spring terms.

Students participating in graduation ceremonies must purchase regalia (i.e., cap and gown) from the Collin College bookstore.

For more information, contact the Registrar's Office at 972.881.5707 or [registrar@collin.edu](mailto:registrar@collin.edu)

### **Bachelor Degrees**

Students may earn the following degrees:

- Bachelor of Science in Nursing (BSN)
- Bachelor of Applied Technology (BAT) in Cybersecurity

### **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

To graduate, students must complete 25 percent of any award at Collin College and satisfy all other degree requirements. Non-traditional and developmental course credit do 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 must complete 25 percent of the award coursework in residence at Collin College. 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.

### **OCCUPATIONAL SKILLS AWARDS**

Occupational Skills Awards (OSA) 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 Associate of Applied Science AAS degree.

### **GRADUATE GUARANTEE FOR AAS GRADUATES**

The Graduate Guarantee for Associate of Applied Science (AAS) Graduates will be used for accountability purposes. The guarantee will ensure the graduate's employer that the graduate has met program competencies and will offer up to nine (9) 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. To be eligible to apply for the benefits of this guarantee, the employer must have hired the graduate within one

year of his/her graduation from the AAS program, and a written request to the appropriate Vice President/Provost must be submitted by the employer OR the graduate within 90 days of the graduate's initial employment.

### **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 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**

Collin College will disclose information from a student's education records with the student's prior consent or as permitted by law. Examples of disclosure not requiring a student's prior consent include the following:

1. To other school officials who Collin College has determined to have legitimate educational interests;
2. To officials of another school in which the student seeks or intends to enroll, or where the student is already enrolled so long as the disclosure is for purposes related to the student's enrollment or transfer;
3. To certain officials of the United States 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 studies for or on behalf of educational agencies or Collin College;
7. To accrediting organizations to carry out their accrediting functions;

8. To comply with a judicial order or a lawfully issued subpoena;
9. If legal action is initiated, Collin College may disclose relevant information from a student's education records to the court, without a court order or subpoena;
10. In connection with a health or safety emergency, Collin College may disclose information from education records to appropriate persons whose knowledge of the information is necessary to protect the health or safety of the student or other individuals;
11. Directory information (as defined below) in accordance with FERPA, unless the student restricts directory information;
12. To the student and/or the parent of a student who is a dependent for tax purposes;
13. Final results of the disciplinary proceeding to alleged complainant/victim of a crime of violence and/or a non-forcible sex offense;
14. To a parent of a student under the age of 21 who has committed a disciplinary violation with respect to the use or possession of alcohol or a controlled substance; and/or
15. The disclosure concerns sex offenders and other individuals required to register under Section 170101 of the Violent Crime Control and Law Enforcement Act of 1994, 42 U.S.C. 14071, and the information was provided to Collin College (for additional information, see Section 6.22, Registered Sex Offenders).

### **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 a qualified individual or organization that files a written request with the Registrar without the consent of the student.

Directory information is defined as:

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

A student may request that directory information be withheld from the public by completing the "Release of Student Information" form in CougarWeb. 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.

Students may also authorize parents or other individuals access to their grades by completing the "Release of Student Information" form in CougarWeb.

### STUDENT CLASSIFICATIONS

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

**Sophomore:** A student who has successfully completed 30 to 59 quality hours

**Junior:** A student who has successfully completed 60 to 89 quality hours.

**Senior:** A student who has successfully completed 90 or more quality hours.

Classification varies for courses meeting on alternative or accelerated schedules.

### STUDENT LOAD

**Full-time:** A student enrolled for 12 credit hours or more in a Fall or Spring term, 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 Fall or Spring term, five credit hours or less in a five-week Summer session, or eight credit hours or less in a 10-week Summer session.

Students may, with special permission from the registrar, enroll for more than 18 credit hours during a regular session and 18 hours in combined Summer session terms. Permission will not be granted unless the student has a 3.0 cumulative grade point average (GPA) and plans to carry no more than 21 hours during a regular 16-week semester or nine (9) hours during a Summer session. Students are limited to one (1) course, maximum three (3) credit hours, during the Maymester and Wintermester 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 College's Institutional Research Office website <http://www.collin.edu/aboutus/statistics/>.

## TRANSFER OF CREDIT

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 area of study.
5. Repeats rules from other institutions may vary and Collin College will follow what is listed on transcripts if a student has repeated same course at one institution multiple times.
6. Grades of "D" are accepted from other institutions; Grades of "F" and "I" will not transfer.
7. While there is no limit on the number of hours that can be transferred into Collin College from other institutions, 25 percent of the degree/certificate must be earned from Collin College.
8. Time limits and minimum grade requirements may be imposed for transfer work into select areas of study. Contact the academic deans office for details.
9. 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.
10. Fall 1985 through Summer 2008 transfer work was included in students' overall GPA. Beginning Fall 2008 transfer work is not included in GPA.

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

The ultimate goal at Collin College is to produce educated and productive students, knowledgeable in their chosen area 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 help students transition from Collin College to their chosen four-year institution – they also 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.

### **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 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**

Requests for official transcripts are made online through the college website ([www.collin.edu](http://www.collin.edu)) and cost \$5 each.

### **WITHDRAWAL FROM THE COLLEGE**

#### **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 *Texas Education Code 51.907*.

*Texas Education Code 51.907* states that students who enrolled for the first (1<sup>st</sup>) time during the Fall 2007 semester or any subsequent semester are subject to the course drop limit of six (6) course drops. This includes any course a transfer student has dropped at another institution. Collin College counts dropped courses starting in the Fall 2009 semester and forward.

#### **Procedures to Withdraw from a Course(s)**

Students may withdraw from a course(s) with a grade of "W" through the end of the eighth (8<sup>th</sup>) class week during a regular 16-week semester. The withdrawal date for flexible entry classes and mini-session varies.

Withdrawals will appear on the student's official transcript, but have no effect on his or her grade point average (GPA). Contact the admissions area in the Student and Enrollment Services Office for withdrawal deadlines for other terms.

Prior to initiating a withdrawal, students should contact their professor(s) and/or an academic advisor. Withdrawal from Collin College must be initiated by the student. Students who discontinue class attendance and do not officially withdraw will receive a performance grade for the course(s).

Students who need to withdraw from a class(es) may do so online or in person in the Student and Enrollment Services Office at any campus. Students may withdraw online through the posted last day to withdraw unless the student has a registration hold(s) or is an international student. In these cases, the student must come to the admissions area in the Student and Enrollment Services Office at any campus to withdraw. The withdrawal deadlines are listed in the *Academic Calendar*.

Students may also withdraw from Collin College by mailing a written request for such action to the admissions area in the Student and Enrollment Services Office. The written request must include the student's signature, address, CWID number, date of birth, phone number(s), and the course name(s) and number(s). The date postmarked on the envelope will be the official withdrawal date.

Students who initiate a withdrawal from classes cannot be reinstated once the withdrawal has been processed. Failure to drop or withdraw on or before the last day to withdraw will result in the student receiving a performance grade (i.e., A, B, C, D, or F) on his or her official transcript.

International students should contact the International Student Office (ISO) prior to withdrawing from courses. For international students, failure to maintain full-time\* status could affect or jeopardize their F-1 Visa and/or immigration status.

Students receiving financial aid or veterans assistance should contact the Financial Aid/Veterans Affairs Office prior to withdrawing from courses.

\*Full-time status is 12 credit hours during the Fall and Spring semesters and six (6) credit hours in a Summer session. Full-time status for mini-semester varies. International students whose first semester is Summer or are in the ESL program are required to enroll in Summer sessions.

For more information, contact Student and Enrollment Services on any campus.



## LEARNING OPPORTUNITIES

Collin College offers unique types of learning opportunities for students.

### NON-CREDIT COURSEWORK

#### **DEVELOPMENTAL EDUCATION (DE) COURSES**

Developmental Pre-college level foundational coursework in Mathematics, Integrated Reading/Writing, and English as a Second Language (ESL) is designed to enable students to achieve college success.

#### **WHAT IS DEVELOPMENTAL EDUCATION?**

DE courses are designed to provide students with basic skills to achieve success in college-level courses and to pass the TSI (Texas Success Initiative) tests.

The instructional formats of DE courses vary and include computer-based, lecture, online, express, weekend, self-paced, and non-course-based formats. Most developmental courses will be taught in a corequisite format in which the developmental content is taught along with the college course content.

#### **Do DE credits apply to a degree?**

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 DE grades are not calculated as part of the student's grade point average (GPA) shown on transcripts. However, DE grades are sometimes considered when applying for scholarships, financial aid, veteran benefits, etc.

#### **Who is required to take DE?**

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 or along with enrolling in a college-level course in a related field, the student must enroll in the DE course before or along with enrolling in college-level courses in that field of study. For students who do not place at college-level courses in all three Texas Success Initiative (TSI) areas of reading, writing and mathematics, a meeting with an Academic Advisor is required as well as mandatory course registration in EDUC 1300 Learning Framework.

#### **Co-requisite Courses**

The developmental education program has evolved from independent courses to co-requisite courses explicitly connected to college courses due to HB 2223 in the 2017 Texas legislative. A co-requisite course is a developmental education course that must be taken with a math, English, history or government course.

#### **LEARNING TO LEARN**

EDUC 1300 Learning Framework is a college credit course that examines learning based on research and the theory of learning psychology. This course is available for all students who want to enrich their understanding of how to learn, enhance their study skills, and explore their own strengths and weaknesses as learners in order to develop effective personal learning strategies to increase their likely success in other college courses. For more information, see EDUC 1300 in the course description section.

#### **DE LIMITS**

DE courses may be taken for a combined total of no more than 18 credit hours without incurring additional fees of \$50 per credit hour. This additional fee is applied because the state of Texas will not pay a state subsidy for any DE credit hours in excess of 18 credit hours. In addition, students may attempt to successfully complete any DE course only twice before incurring additional fees. Dropping a course before census day does not count as an attempt. After two unsuccessful attempts, students must pay an additional \$50 per credit hour (i.e., for a three hour course, additional fees are calculated as  $3 \times \$50 = \$150$  additional tuition). Or the student may complete the course at another institution and provide proof of successful course completion upon returning to Collin College.

Home school and high school students are not permitted to enroll in DE courses. Call the DE office at 972.881.5701 for additional information

#### **DEVELOPMENTAL EDUCATION DEPARTMENTS**

##### Developmental Mathematics

Collin College offers pre-algebra and algebraic skills courses to enable students to acquire a solid foundation for successful performance in college level mathematics courses. These courses are taught either prior to or in conjunction with college credit courses. MATH 0405: Math Foundations prepares students to take corequisite courses in a pathway.

##### **Developmental Math Pathways**

All Developmental Math students are required to visit with an Academic Advisor to help determine the most



appropriate path to meet their education/career goals as well as consideration for the requirements of potential transfer college or university programs. Students who are placed into Developmental Mathematics at Collin College have an option of two pathways to complete their Developmental Math sequence:

**Algebra Intensive Path.** This path supports students who enroll in MATH 1314/1414 College Algebra or MATH 1324 Mathematics for Business and Social Sciences. Students who are seeking careers in Science, Technology, Engineering, and Mathematics (STEM) fields should follow this path.

MATH 0314 Support for College Algebra  
MATH 0324 Support for Mathematics for Business and Social Sciences

**Quantitative Literacy Path.** This path supports students enrolled in MATH 1342 Elementary Statistical Methods or MATH 1332 Contemporary Mathematics. Most developmental math students who follow the quantitative literacy path can expect to complete their developmental math sequence in one semester.

MATH 0332 Support for Contemporary Mathematics  
MATH 0342 Support for Elementary Statistical Methods

Students must take an assessment (via the Testing Center) for placement purposes. Once placed in a course, many support services are provided to enable students to succeed. Among the services are the Math Lab, video tapes of lectures on specific topics, tutoring, study skills seminars, and scheduled review sessions.

### **Integrated Reading and Writing (INRW)**

The ability to write clearly and accurately is critical to success in academic and professional pursuits. The Integrated Reading and Writing program provides instruction in all aspects of planning and producing academic prose in preparation for the TSI writing assessment and for ENGL1301. The rubric for this coursework is INRW. Courses are:

INRW 0300 Introduction to Integrated Reading/Writing,  
INRW 0405 Integrated Reading /Writing I, and  
INRW 0315 Integrated Reading /Writing II (taught as a corequisite course)

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

#### **New Student Information about testing and registration information**

Collin College offers English for speakers of other languages to build their confidence and skills in listening/speaking, grammar, reading, writing, vocabulary development, and study skills. Classes are designed for

various interests, personal needs, academic needs, and skill levels (intermediate, advanced, and transitioning). New students wanting to take ESL classes must complete the ESL Student Assessment.

Information about the assessment process is available from the ESL website (<http://www.collin.edu/departments/esl/>) and the ESL Testing Coordinator in F-135 on the Plano Campus. These scores are used for course placement only and do not affect the admission status of students. All intermediate, advanced, and transitioning ESL courses are also offered as non-credit, linked courses through Continuing Education.

Information on linked ESL courses is available at: <https://www.collin.edu/ce/classes/linked.html> or in F-135 on the Plano Campus. Beginning ESL classes are available through Continuing Education only. Students should call 972.985.3750 for beginning ESL assessment instructions.

The ESL program includes the following courses:

ESLC 0305 ESL Listening and Speaking, Intermediate  
ESLC 0310 ESL Listening and Speaking, Advanced  
ESLC 0325 ESL Listening and Speaking, Transitional  
ESLG 0305 ESL Grammar for Non-Native Speakers, Intermediate  
ESLG 0310 ESL Grammar for Non-Native Speakers, Advanced  
ESLG 0325 ESL Grammar for Non-Native Speakers, Transitional  
ESLR 0305 ESL Reading, Intermediate  
ESLR 0310 ESL Reading, Advanced  
ESLR 0325 ESL Reading, Transitional  
ESLW 0305 Writing for Non-Native Speakers, Intermediate  
ESLW 0310 Writing for Non-Native Speakers, Advanced  
ESLW 0325 Writing for Non-Native Speakers, Transitional  
ESLX 0305 ESL Pronunciation and Accent Modification  
ESLX 0310 ESL Vocabulary and Idioms  
ESLX 0325 ESL Test-Taking & Study Techniques

For more information, see the course listing in the course description section of the catalog.

## **CONTINUING EDUCATION (CE) OPPORTUNITIES**

### **Quality Learning Opportunities**

Collin College's Continuing Education (CE) is open to the community and provides a general tuition rate, specific for each course. CE offerings vary from semester to semester in order to meet local training demands and provide seasonal and current event offerings. New classes start weekly, with course durations ranging from several hours to several months. The most current information is

available on Collin College's website at [www.collin.edu/ce/](http://www.collin.edu/ce/).

Collin College's CE is the leading career skills training institution for adults who are seeking to build new and refine current skills. More than 70 industry-recognized certificate series and certification-preparation training programs are offered in the administrative, creative, education, finance, health care, information technology, logistics, management, public safety, service, and veterinary medicine career fields.

#### **What is the difference between a credit course and a CE course?**

- Credit courses are generally taken as part of a degree program and provide college credits.
- Non-credit courses are offered to provide a purposeful and systematic process of acquiring and recording lifetime learning.
- In some circumstances, there may be opportunities to leverage CE courses as a pathway to credit programs through Collin College's Prior Learning Assessment.
- Successful completion of non-credit courses is recorded as Continuing Education Units (CEUs).

#### **Why would a student want to take CE courses?**

- These are courses students take to increase knowledge and skills, either to assist students on the job or for their personal enrichment.
- Students will not earn "traditional" college credits toward a degree, although they may earn Continuing Education Units (CEUs), which will be recorded on a Continuing Education transcript.

#### **What are linked courses?**

- Linked courses mix credit and non-credit students in the same learning environment, ensuring the same rigorous standards are met in your education.
- Offered in areas as varied as computer technology, dance, real estate and health care, these courses provide college credit for credit students and continuing education units (CEUs) for continuing education students.
- Continuing Education students pay the CE course tuition rate. Credit students pay the academic course tuition rate based on location of residence.
- CE students complete a quick admission process and space is limited for select Linked Courses. For a current list of linked courses, go to [www.collin.edu/ce/classes/linked.html](http://www.collin.edu/ce/classes/linked.html).

#### **What are Continuing Education Units (CEUs)?**

- CEUs are recognized nationally to record satisfactory completion of certain approved occupationally-related programs. Courses are offered at a variety of locations depending on the types of courses and availability of facilities.
- One (1) CEU is awarded for each 10 contact hours of instruction included in a specified CE program or activity. Successful completion is attendance-based, unless otherwise noted with "Passed Competencies" under "CEUs Earned." Ninety (90) percent attendance is required for successful completion for most courses, but students are encouraged to review the course syllabus for each class to determine specific attendance requirements.
- For more information and CE transcript requests, visit <http://www.collin.edu/ce/ce-transcripts.html>.

#### **How can I get more information about the contents of a course?**

- The CE Syllabus Depot has expanded information for the courses offered. The CE Syllabus Depot is located on Collin College's website at [www.collin.edu/ce/classes/syllabi.html](http://www.collin.edu/ce/classes/syllabi.html).
- CE Health Science course information can be found at [www.collin.edu/ce/healthsciences/syllabi.html](http://www.collin.edu/ce/healthsciences/syllabi.html).

#### **Are there any prerequisites for Continuing Education courses?**

- Many courses specify prerequisite knowledge. These prerequisites are stated to ensure students have the prior knowledge and skills required to get the most out of and be successful in the course.
- It is recommended students take the time to talk to an advisor or program personnel for the course area. For more information, go to [www.collin.edu/ce/](http://www.collin.edu/ce/).

#### **How do I register for a CE course?**

- For most CE courses, there is open enrollment. Students may simply choose the course(s), register, and pay for the class(es).
- Registration is available online, over the phone at 972.985.3711, or at any of Collin College's main campuses.
- For many CE healthcare courses, there is a separate application which must be completed and submitted with supporting documents. For

more information, go to [www.collin.edu/ce/healthsciences/index.html](http://www.collin.edu/ce/healthsciences/index.html).

### **Will students receive a certificate upon CE course completion?**

- CE does not offer certificates for individual courses. Certificates are only awarded for completion of a Certificate Series of courses.
- However, students may request an official CE transcript. Continuing Education Units (CEUs) are awarded for successful course completion, and will appear on an official CE transcript.

### **Locations of CE Classes**

- CE classes are primarily located at the Courtyard Center (CYC) in Plano, with a select number of courses scheduled at other Collin College campus locations.
- For a list of Collin College campus locations and maps, go to [www.collin.edu/campuses/index.html](http://www.collin.edu/campuses/index.html). For more information, call 972.985.3750.

## **ACADEMIC PROGRAMS**

### **SMART PLANNING FOR A DEGREE PROGRAM OR AREA OF STUDY**

Areas of Study prepare a student to transfer to a baccalaureate program at a college or university. Collin College offers a variety of plans designed to prepare students for a college or university degree. Students can complete the General Education Core certificate; a Field of Study, or begin coursework in a pre-professional program.

### **Choose A Program and Award**

If you need help selecting a program that matches your skills and personality, go to Collin College's Career Services for help identifying your career goals. To obtain workforce details (such as projected earned wages) for programs offered at Collin College and other Texas schools, explore [Career Coach](#) and the [Texas CREWS website](#).

Before you register, choose an area of study or a degree/certificate. It is important to establish a degree plan, outlining all of the courses needed and the sequence as well as the semester in which the courses will be taken. Work with a Collin College Academic Advisor to complete the online "Change of Major" request form. The degree plan will help you make the right decisions so that you avoid taking courses that do not apply to your degree or certificate.

If you are planning to earn a 4-year baccalaureate degree, choose the 4-year college(s) you want to attend and select a baccalaureate degree as soon as possible. It is important to consider the specific degree requirements of the colleges

where you want to transfer. Make these choices early in the planning process; ideally, when you first start at Collin College. If uncertain about a transfer institution, try picking one or two top choices. Work with a Collin College Academic Advisor to determine which courses from Collin College will apply to the transfer institution.

### **Stay on Track**

Run your personalized Degree Audit through CougarCompass every semester before registering. The CougarCompass Degree Audit report shows which requirements for your degree/program you've completed, and which ones you still need to complete. It also gives lists of courses you can use to complete specific core, elective and program requirements. Meeting with a Collin College Academic Advisor helps to ensure that you take only the courses you need. This can save your time and money.

### **Choosing a Plan Year**

Students who plan to transfer to a college or university have a choice to make regarding the requirements for graduation. Specifically, they may choose to graduate in accordance with the program requirements that are in effect during one of their terms of enrollment. If a degree or certificate is terminated during their enrollment, they will have three years in which to complete the terminated program under the old requirements. They should consult with a Collin College academic advisor to learn about all the requirements and limitations that may apply. Students are advised to keep a copy of the program requirements and transfer guide(s) in effect during their enrollment at Collin College. Students should also keep their course syllabi to assist with transfer.

## **ADVANCED STUDY OPPORTUNITIES**

### **Advanced Study in Mathematics And Natural Sciences**

The Center for Advanced Study in Mathematics and Natural Sciences (CASMNS) provides speakers, research opportunities for selected students, and advanced study opportunities in biology, chemistry, geology, mathematics, and physics.

Students desiring CASMNS opportunities should speak with a CASMNS faculty member during CASMNS orientation to schedule an interview, and if appropriate, the student will be assigned a supporting instructor.

### **Honors Coursework**

The Honors Institute at Collin College can provide a student 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 the

student's transcript and may qualify the student for honors scholarships. The student must have a 3.5 cumulative grade point average (GPA) to be eligible for enrollment in honors courses.

### **PRE-PROFESSIONAL STUDIES FOR ACADEMIC 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 College. It is the responsibility of students to know the exact requirements for admission to the specific professional school to which they are applying.

Every Texas public baccalaureate includes the 42-credit core curriculum as part of its degree requirements. The state of Texas guarantees that any Texas public institution will accept core credits from any other Texas public institution and that these core credits will apply toward a baccalaureate degree. Completing the core curriculum at Collin College will save a student money because the tuition per credit hour is lower than at any public four-year institution.

For additional information and specific Texas and out-of-state requirements, consult a Collin College academic advisor.

#### **Pre-Architecture**

Collin College 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.

#### **Pre-Health Studies**

Pre-Health studies include areas such as:

- Pre-Chiropractic, Pre-Clinical Lab Sciences,
- Pre-Dental
- Pre-Medicine
- Pre-Pharmacy
- Pre-Physician's Assistant
- Pre-Veterinary Medicine

Collin College 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.

#### **Pre-Law**

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. Future law school students should complete the core curriculum and 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 disciplines:

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

Course selections should always be discussed with a Collin College academic advisor to ensure that students take the correct courses for their particular pre-law baccalaureate program at their intended transfer institution.

Pre-law students are encouraged to take the Law School Admission Test (LSAT) during the semester prior to completing the baccalaureate degree.

### **BACCALAUREATE, ASSOCIATE DEGREES AND CERTIFICATES**

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 and 18 credit hours of degree requirements and/or general studies electives.

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. While general studies electives may be drawn from any college-level credit course offered by Collin College, many credit workforce courses may not transfer to four-year institutions. These courses are noted with a (W) at the end of the course description. Check with your transfer institution for transferability and applicability to your bachelor's degree. Students should visit with an academic advisor to select courses that apply to their AA, AAT, or AS degree.

## DEGREE REQUIREMENTS

### ASSOCIATE OF ARTS DEGREE REQUIREMENTS

The following requirements must be met for an AA:

1. Earn a minimum of 60 college-level credit hours.
2. Complete the General Education Core of 42 credit hours.
3. Complete a minimum of 18 additional credit hours of general studies electives from any college-level credit course.\*
4. Earn a minimum cumulative grade point average (GPA) of 2.0.
5. Earn a minimum of 15 credit hours at Collin College.

\*While general studies electives may be drawn from any college-level credit course offered by Collin College, many credit workforce courses may not transfer to four-year institutions. These courses are noted with a (W) at the end of the course description. Check with your transfer institution for transferability and applicability to your bachelor's degree.

### ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS

The following requirements must be met for an AS:

1. Earn a minimum of 60 college-level credit hours.
2. Complete the General Education Core of 42 credit hours.
3. Complete a minimum of 18 additional credit hours of degree requirements and general studies electives. General studies electives may be drawn from any college-level credit course.\*
4. Earn a minimum cumulative grade point average (GPA) of 2.0.
5. Earn a minimum of 15 credit hours at Collin College.
6. Complete the degree requirement for the AS degree:
  - Complete at least six credit hours of mathematics from the following list: MATH 1314 or 1414, 1316, 1342, 2305, 2318, 2320, 2412, 2413, 2414, 2415. Three credit hours of this mathematics requirement will also meet the Mathematics Core requirement.
  - Complete at least 8 credit hours of Life and Physical Sciences from the following list:
    - BIOL1406, 1407, 1414, 1415, 2401, 2402, 2406, 2416, 2421
    - CHEM 1411, 1412, 2423, 2425
    - ENVR 1401, 1402
    - GEOL 1403, 1404
    - PHYS 1401, 1402, 2425, 2426

\*While general studies electives may be drawn from any college-level credit course offered by Collin College, many credit workforce courses may not transfer to four-year institutions. These courses are noted with a (W) at the end

of the course description. Check with your transfer institution for transferability and applicability to your bachelor's degree.

A Science course sequence is recommended. Completion of two of these Science courses with a grade of D or better will meet the six-credit hour Life and Physical Sciences Core requirement and two credit hours from the lab portion will be applied to the 6-credit hour Component Area Option Core requirement.

### ASSOCIATE OF ARTS IN TEACHING DEGREE REQUIREMENTS

Take your first steps toward becoming a teacher with an Associate of Arts in Teaching (AAT) degree from Collin College. The AAT will prepare you to transfer to a baccalaureate program that lead to initial Texas teacher certification. The requirements are:

1. Earn a minimum of 60 college-level credit hours.
2. Complete the General Education Core 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 programs.
4. Earn a minimum of 15 credit hours at Collin College.
5. Complete all the courses listed for one of three AAT diplomas:
  - AAT – Early Childhood – Grade 6
  - AAT – Middle Grades (Grades 4-8)
  - AAT – High School (Grades 8-12)

### BACCALAUREATE DEGREES

The Bachelor of Science in Nursing (BSN) or the Bachelor of Applied Technology (BAT) in Cybersecurity are awarded to students who earn a minimum of 120 college-credit hours, 25 percent of which must be earned at Collin College (30 SCH)

#### Baccalaureate Degree Requirements

1. Earn a minimum of 120 college-level credit hours.
2. Complete the General Education Core of 42 credit hours.
3. Earn a minimum of 30 credit hours at Collin College.
4. Complete all other requirements specific to each degree.

### AA AND AS FIELDS OF STUDY CERTIFICATES

AA and AS degrees may have state-recognized Fields of Study (FOS) certificate. The certificate of completion for a specific FOS is awarded to guarantee transfer of the courses contained in the FOS curriculum among Texas public colleges. The FOS courses are statutorily required to

be accepted as the first two years of program coursework in a related bachelor's degree.

Fields of Study are available in the following disciplines:

- Business
- Communication
- Computer Science & Information Technology
- Criminal Justice
- Drama
- Economics
- Engineering
- Fine Arts
- Music
- Political Science
- Psychology
- Sociology

## **GENERAL EDUCATION CORE**

The Texas Education Code requires all public colleges and universities to have a General Education Core and every degree has a General Education Core requirement.

General Education Core 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 baccalaureate degree. The General Education Core focuses on strengthening six basic competencies that help define the educated person: Communication skills, critical thinking, empirical and quantitative reasoning, teamwork, social responsibility, and personal responsibility.

## **CORE CURRICULUM COMPLETION**

The designation “Core Complete” is placed on the transcript of all students completing Collin College’s General Education Core. The State of Texas guarantees acceptance by a public four-year university of any complete General Education Core transferred from any other Texas public college.

The General Education Core at Collin College is the collection of 42 credit hours of general education courses selected by Collin College faculty in eight areas that have been approved by the Texas Higher Education Coordinating Board to build a basic core of knowledge. Course options are displayed by area and discipline in the AA/AS/AAT General Education Core Table. Unless otherwise stated, all general education core course options shown in the General Education Core Table can be used to satisfy both core and degree requirements for the AA, AS or AAT degrees.

Students should visit with an academic advisor to ensure the best selection of courses to complete the General Education Core and/or an associate degree, and to transfer to their chosen major for a baccalaureate.

## **Becoming Core Complete for Students Who Transfer**

All core courses in the 030 Life and Physical Sciences Component at Collin College earn four credit hours, which are distributed as three hours applied to the 6-credit hour requirement for the 030 Life and Physical Sciences Core Component, and one lab credit hour is applied to the 090 Collin Option Area 2 requirement. There are several transfer scenarios for becoming core complete for the student who transfers in 3, 6, or 7 credit hours of Life and Physical Sciences.

If you transfer to Collin College with one 3-credit hour Life and Physical Science course with a grade of D or better, three credit hours will be applied toward the 6-credit hour Life and Physical Sciences Core requirement. You will need to take one additional Life and Physical Science Core course at Collin.

If you transfer in six or seven credit hours of Life and Physical Sciences with a grade of D or better, you will have met the 6-credit hour requirement for the 030 Life and Physical Sciences Core Component.

To meet the 6-credit hour requirement in the 090 Collin Option, all students who transfer to Collin College with 3, 6 or 7 credit hours of Life and Physical Sciences Core coursework, will need to take or transfer in one 090 Collin Option Area 1 Speech course, and up to 3 semester credit hours of Area 2 core coursework in order to be Core complete in both the 030 Life and Physical Sciences Core Component and the 090 Collin Option.

The Area 2 core coursework may be chosen from the following list: EDUC 1100\*, EDUC 1300\*, KINE 1164, KINE 1304, or KINE 1338; however, a student may only earn credit for one of EDUC 1100 or EDUC 1300. Finally, a student may choose to take (or transfer in) any other course within the Collin College Core curriculum that is not already being used to satisfy another core curriculum requirement.



<b>COLLIN AA/AS/AAT GENERAL EDUCATION CORE</b>		
<b>Discipline</b>	<b>Courses</b>	<b>Notes</b>
<b>010 Communication Component 6 Credit Hours</b>		
English	ENGL 1301 and either ENGL 1302 or 2311	
<b>020 Mathematics Component * 3 Credit Hours</b>		
Mathematics	MATH 1314 or 1414, 1316, 1342, 2305, 2318, 2320, 2412, 2413, 2414, 2415	These courses satisfy the AS, AA, & AAT Math requirement
	MATH 1324, 1325, 1332*, 1350, 1351	These courses apply only to the AA or AAT
* Check with academic advising regarding degree applicability. Some majors or institutions may require a higher-level mathematics course.		
<b>030 Life &amp; Physical Sciences Component ** 6 Credit Hours</b>		
Biology	BIOL 1406, 1407, 1414, 1415, 2401, 2402, 2406, 2416, 2421	A two-course sequence is recommended.
Chemistry	CHEM 1411, 1412, 2423, 2425	
Environmental Sciences	ENVR 1401, 1402	These courses satisfy the AS, AA, & AAT Science requirement.
Geology	GEOL 1403, 1404	
Physics	PHYS 1401, 1402, 2425, 2426	Students who transfer to Collin with fewer than 8 credit hours of Life & Physical Science credits should see "Becoming Core Complete"
Biology	BIOL 1408, 1409, 2404, 2420	These courses only satisfy the AA or AAT Requirement.
Chemistry	CHEM 1405	
Geology	GEOL 1401, 1402, 1445, 1447	
Physics	PHYS 1403, 1404, 1405, 1410, 1415, 1417	
**1 hour of each 4 hour Life & Physical Sciences course will be transcribed as <b>090 Collin Options</b> , up to 2 credit hours.		

<b>040 Language, Philosophy &amp; Culture Component 3 Credit Hours</b>		
English	ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2341	
History	HIST 2311, 2312, 2321, 2322	
Humanities	HUMA 1301	
Philosophy	PHIL 1301, 1304, 2303, 2306, 2307, 2321	
<b>050 Creative Arts Component 3 Credit Hours</b>		
Dance	DANC 2303	
Music	MUSI 1306, 1307, 1310	
Theatre	DRAM 1310, 2361, 2362, 2366	
Visual Arts	ARTS 1301, 1303, 1304, 1313	
<b>060 American History Component 6 Credit Hours</b>		
History	HIST 1301, 1302, 2301	
<b>070 Government/Political Science Component*** 6 Credit Hours</b>		
Government	GOVT 2305 and 2306	
***Students who took only one of GOVT 2301 or GOVT 2302 prior to the 2013-2014 Academic year, should see an Advisor to determine how to complete the 070-Government/Political Science Foundational Component Area.		
<b>080 Social and Behavioral Sciences Component 3 Credit Hours</b>		
Anthropology	ANTH 2302, 2346, 2351	
Economics	ECON 1301, 2301, 2302	
Psychology	PSYC 2301	
Sociology	SOCI 1301, 1306	
<b>090 Collin Options 6 Credit Hours</b>		
<b>Area 1 – Speech</b> 3 credit hours	SPCH 1311, 1315, 1321	
<b>Area 2 -</b> 3 credit hours	EDUC 1100*, 1300*, KINE 1164, 1304, 1338, Or Any core course not used to meet the requirement of another component.  * Only one of these courses may be taken.	Students who complete 8 credit hours of Life and Physical Sciences will have 2 of those credit hours apply to the 090 Collin Options, Area 2 requirement. See core course options that may be used to fulfill the remaining 1 credit hour requirement. If a student earns more than 42 core credit hours, the extra hours may be applied to degree requirements.
Note: Students who transfer to Collin with 3-7 credit hours of Life & Physical Science credits should see "Becoming Core Complete" on the previous page for more information.		

## AREAS OF STUDY - GENERAL STUDIES ELECTIVES

Collin College 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 and degree applicability with a Collin College academic advisor and/or the college or university that they plan to attend.

To earn an associate degree, complete the 42 credit hour [General Education Core](#), and 18 credit hours of general studies electives and the Associate of Arts (AA) or Associate of Science (AS) degree requirements.

Check with your transfer institution before registering for general studies electives to make sure your courses will be degree applicable to your bachelor degree at the transfer institution.

### ACCOUNTING

Accounting students who plan to major in Accounting when they transfer to a four-year institution should take the Business Field of Study at Collin College and complete the 42 credit hour [General Education Core](#) required to earn an Associates of Arts (AA) degree. Before you register for general studies electives at Collin College, speak with an advisor to determine if courses will transfer to the desired program and institution.

See [Business Field of Study](#)

### AGRICULTURE

Today, more than ever, the study of Agriculture is reaching a critical level. As farmland decreases and the population increases, the need for a greater number of Agricultural specialists will continue to grow. By the year 2050, the world population will require a sustainable, innovative approach to growing more food in a smaller footprint.

Agriculture coursework and a general Associate of Science degree from Collin College will prepare you for university studies in an Agriculture-related field. Collin College offers a personalized, high quality educational experience, with an excellent instructional staff, and an innovative approach to developing new methods for raising crops and livestock.

Careers in Agriculture include farm and ranch management, controlled environment agriculture, animal husbandry, banking and finance, real estate, commodities broker, sales and marketing of equipment and pharmaceuticals, the United States Department of Agriculture, extension education, and agricultural education.

### Recommended Electives:

AGRI	1419	Introduction to Animal Science
AGRI	2317	Introduction to Agricultural Economics

### Department Website:

<http://www.collin.edu/department/agriculture/>

### AIR FORCE AND ARMY ROTC

Collin College students are given the opportunity to participate in the Air Force or Army ROTC program as crosstown students at the **University of North Texas in Denton, Texas**.

Students are required to attend an academic class, leadership laboratory and physical training at the University of North Texas once a week during the Fall and Spring academic semesters.

The ROTC mission is to develop quality leaders to serve our country as officers in the United States Air Force or Army. As a part of the program, you will prepare yourself to become an Air Force or Army Officer while completing your degree as a college student. Students may participate in four-year or three-year programs.

Students enroll in ROTC classes at the same time and in the same manner as other Collin College courses. Collin College's Business and Computer Systems Division administers the offering of ROTC courses for Collin College; students register and pay via Collin College in accordance with published payment deadlines.

### Department Website:

[www.afrotc.unt.edu](http://www.afrotc.unt.edu), or  
[www.armyrotc.unt.edu](http://www.armyrotc.unt.edu)

### AMERICAN SIGN LANGUAGE

Deaf Education is a specialized education field that opens up learning for students who are deaf or hard of hearing. Studying American Sign Language (ASL) at Collin College will prepare you to pursue a career or degree in Deaf Education or Deaf Studies at a four-year college.

### Recommended Electives

SGNL	1401	Beginning American Sign Language I
SGNL	1402	Beginning American Sign Language II
SGNL	2301	Intermediate American Sign Language I
SGNL	2302	Intermediate American Sign Language II
SLNG	1211	Fingerspelling and Numbers <sup>1</sup>
SLNG	1347	Deaf Culture

EDUC 1301	Introduction to the Teaching Profession <sup>2</sup>
EDUC 2301	Introduction to Special Populations <sup>2</sup>

1. Recommended for students pursuing degrees in Deaf Studies.
2. Recommended for students pursuing degrees in Deaf Education.

See the workforce [Interpreter Education Program \(IEP\)](#)

#### Department Website:

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

### **ANTHROPOLOGY**

What defines being human? Why are there variations and differences among different groups of humans? Why does my social or cultural group react in a certain way to other groups' actions? Why does it make sense for other groups to behave in certain ways when it would never occur to me to do the same thing?

Anthropology seeks to answer these questions and others so we may better understand human societies and the complexity of our roles in the world. Collin College anthropology coursework will provide you with a foundation in the discipline and will serve you well as you seek to understand the world.

#### Recommended Electives

ANTH 2301	Physical Anthropology
ANTH 2302	Introduction to Archeology
ANTH 2346	General Anthropology
ANTH 2351	Cultural Anthropology
ANTH 2389	Academic Co-Op Anthropology
ANTH 2401	Physical Anthropology

### **ART**

Collin College's Art program fosters a creative environment where you can learn the skills to become a successful artist. The Art program offers foundation-level courses in drawing, design, art appreciation and art history, as well as courses focused on traditional studio disciplines such as drawing, painting, watercolor, ceramics, sculpture, printmaking and metals.

Our spacious labs will provide you with access to professional-quality equipment, including printing presses, ceramic kilns, electric pottery wheels and a metal-casting foundry. Our gallery space, The Art Gallery, exposes students to the work of current professional artists and showcases student work in both open and juried student shows.

Our instructors are nationally-recognized, practicing artists who are dedicated to helping you explore, research and practice the visual arts.

#### Recommended Electives

ARTS 1301	Art Appreciation
ARTS 1303	Art History I (Prehistoric to the 14 <sup>th</sup> Century)
ARTS 1304	Art History II (14 <sup>th</sup> Century to the present)
ARTS 1311	Design I (2-dimensional)
ARTS 1312	Design II (3-dimensional)
ARTS 1316	Drawing I
ARTS 1317	Drawing II
ARTS 2311	Design III
ARTS 2316	Painting I
ARTS 2317	Painting II
ARTS 2323	Life Drawing
ARTS 2326	Sculpture
ARTS 2333	Printmaking I
ARTS 2341	Metals
ARTS 2346	Ceramics I
ARTS 2347	Ceramics II
ARTS 2348	Digital Media
ARTS 2366	Watercolor

See [Fine Arts Field of Study Certificates](#):

- General Studies Track
- Studio Track

Also see [Photography area of study](#)

#### Department Website:

<https://www.collin.edu/department/art/index.html>

### **BIOLOGY**

Today, more than ever, 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 a basic understanding of biology.

The Biology Department at Collin College offers students a broad introduction to modern biological sciences, with coursework emphasizing the molecular through the ecosystem level of organization. With a focus on current research, students will receive an education that will allow them to pursue a variety of academic and career opportunities.

Whether interested in a B.S. in Biology, teacher certification, allied health sciences, or a professional program, Collin College offers students a personalized, high quality educational experience. This includes an excellent instructional staff, computer-aided instruction, and a state-of-the-art laboratory facility.

Students taking courses in Biology at Collin College have the opportunity to specialize in areas of their particular interest. These include:

- Cell & Molecular – BIOL 1406, 1408, 1414, 1415, 2416

- Organismal & Environmental – BIOL 1407, 1409, 2406
- Health Sciences – BIOL 2401, 2402, 2404
- Microbiology – BIOL 2420, 2421

### Recommended Electives

BIOL	1322	General Nutrition
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 for Science Majors
CHEM	1411	General Chemistry I
CHEM	1412	General Chemistry II
CHEM	2423	Organic Chemistry I
CHEM	2425	Organic Chemistry II
HITT	1305	Medical Terminology I
MATH	1342	Elementary Statistical Methods
PHYS	1401	College Physics I
PHYS	1402	College Physics II
PHYS	2425	University Physics I
PHYS	2426	University Physics II

### Department Website:

<http://www.collin.edu/department/biology/>

### BUSINESS

If you are interested in a career in business or plan to pursue a bachelor's degree in accounting, business administration, finance, international business, management or marketing, the business field of study (FOS) curriculum at Collin College is a great starting point.

### Recommended Electives

BUSI	1307	Personal Finance
BUSI	2301	Business Law

See [Certificate – Business Field of Study](#) and [AA - Business Field of Study](#)

### CHEMISTRY

Earn an Associate of Science degree with chemistry coursework and lay the 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, stocked laboratory facilities and current scientific literature make chemistry courses at Collin College a personalized, high quality educational experience.

### Recommended Electives

CHEM	2389	Academic Co-op Chemistry
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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

### Department Website:

<http://www.collin.edu/department/chemistry/index.html>

### COMMUNICATION

Learn how to communicate effectively with an audience, in small groups, or one-on-one with a certificate from Collin College's Communication Field of Study (FOS). Whether you hope to pursue a degree in a communication, embark on a career that requires strong communication skills, or want to develop and maintain strong relationships personally and professionally, courses in Collin College's Communication FOS can provide you with a great foundation.

See [Certificate – Communications Field of Study](#)

### COMPUTER SCIENCE

The mission of the Computer Science Field of Study Certificate at Collin College is to provide an excellent foundation in programming for students who plan to transfer to a four-year college or university to major in computer science.

Computers are a part of every aspect of modern life. An education in computer science can provide the training necessary to invent new technologies and/or improve current technologies. There is a constant, high demand for talented computer science graduates. If you like solving problems and have a talent for mathematics and logical thinking, a degree in computer science could be the start of a rewarding career.

Collin College's computer science courses will prepare you for a bachelor's degree in computer science or computer software engineering. Learn the fundamentals of programming and make the future your own.

See [Certificate – Computer Science and Information Technology Field of Study](#)

### CRIMINAL JUSTICE

The Associate of Arts – Criminal Justice Field of Study program is focused on preparing graduates for a continued educational career towards a baccalaureate after completing the program at Collin College. Upon completion of the program, students are expected to have enhanced critical thinking, written, interpersonal and oral communication skills. As such, courses are designed to provide students an introduction to the criminal justice

system, key concepts, practices, and criminal justice policy via critical analysis. The educational and professional skills students learn within the criminal justice program are expected to prepare them for the academic rigor of continued education, and help them excel within their careers.

Students can also earn a Field of Study Certificate in Criminal Justice to build a solid foundation of criminal justice knowledge.

#### Recommended Electives

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

#### Department Website:

<https://www.collin.edu/departments/criminaljustice/>

See [Certificate – Criminal Justice Field of Study](#) and [AA – Criminal Justice Field of Study](#)

#### DANCE

Known for excellence in dance education, performance and choreography, Collin College's Dance Department has a reputation for preparing students for prestigious university dance programs. As a student at Collin College, you will have the opportunity to study multiple genres of dance technique (ballet, modern, jazz, tap and ballroom), as well as courses in performance, improvisation, choreography and dance appreciation. Through studying the art of dance, you will develop self-discipline, recognize diversity and expand your awareness of aesthetics.

Dance courses 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 the student dance company, Collin Dance Ensemble. 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 ten times and performed at the National festival, as well. Dance auditions for the dance company are held prior to the Fall semester.

#### Recommended Electives

DANC	1110	Tap Dance
DANC	1112	Dance Practicum
DANC	1128	Ballroom and Social Dance
DANC	1151	Freshman Dance Performance

DANC	1201	Dance Composition - Improvisation
DANC	1241	Beginning Ballet
DANC	1245	Beginning Modern Dance
DANC	1247	Beginning Jazz Dance
DANC	1301	Dance Composition - Choreography
DANC	1305	World Dance
DANC	2151	Sophomore Dance Performance
DANC	2241	Intermediate Ballet
DANC	2245	Intermediate Modern Dance
DANC	2247	Intermediate Jazz Dance
DANC	2303	Dance Appreciation
DANC	2389	Academic Cooperative

#### Department Website:

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

#### ECONOMICS

Economics is often referred to as the science of decision-making. Therefore, the field of Economics studies how human beings make choices in life under conditions of scarcity. The unlimited desires of human beings give rise to resource limitations. As a result, scarcity conditions provide incentives to human beings to make choices that may lead to reductions in wasteful behavior and lead to efficient outcomes. Economics analyzes individual decision making of consumers and households as well as firms. It researches the behavior of the economy as a whole and studies economic phenomena such as economic growth, inflation, unemployment, international trade, national debt, and national savings among others. Economics explores moral, political, and economic philosophies and theories in order to find suitable methods to incentivize human beings to become better decision-makers under conditions of scarcity. Economics students will learn marketable analytical and business skills that will benefit them in a wide variety of careers.

See [Certificate – Economics Field of Study: Bachelor of Science Track](#)

#### EDUCATION

Take the first steps toward becoming a teacher with an Associate of Arts in Teaching (AAT) degree from Collin College.

Collin College offers degree plans with three different specializations: early childhood through Grade 6, middle grades (grades 4-8) and secondary (grades 6-12, 7-12 or 8-12, depending on teaching content area). Specializations will prepare students for transfer to a baccalaureate program that leads to initial Texas teacher certification.

Students seeking all-level certifications (early childhood through Grade 12) like special education, theater, and art, can transfer EDUC 1301 and EDUC 2301 to



baccalaureate institutions. Students should check with transfer advisors for other course requirements.

Students who complete the AAT will also complete 32 observation hours in a public school classroom.

Some TECA courses may be transferable in addition to the AAT. Students should contact their intended teacher education program for detailed information prior to registering. Contact names and phone numbers are available from a Collin College academic advisor, or go to <http://transferu.collin.edu>.

EDUC 1301 and EDUC 2301 are offered in eight-week, sixteen-week, and weekend express formats. Courses are offered face-to-face and online. EDUC 1301 is a pre-requisite for EDUC 2301.

See [Associate of Arts in Teaching \(AAT\)](#) and the workforce [Child Development \(AAS\) program](#).

## **ENGINEERING**

Build a foundation in the mathematics and sciences which are the basis of all engineering. Collin College's engineering field of study (FOS) programs are great preparation for a bachelor of science program in several disciplines within the school of engineering at a college or university.

Collin College offers three engineering tracks: civil engineering, electrical engineering and mechanical engineering. While they share much of the foundational material, each discipline has its own specialty. Explore the disciplines below and determine which suits your goals best.

### **Department Website:**

<https://www.collin.edu/department/engineering/>

See [AS – Civil Engineering Field of Study](#)  
[AS – Electrical Engineering Field of Study](#)  
[AS – Mechanical Engineering Field of Study](#)  
[Certificate – Civil Engineering Field of Study](#)  
[Certificate – Electrical Engineering Field of Study](#)  
[Certificate – Mechanical Engineering Field of Study](#)

## **ENGLISH**

From the development of critical reading, thinking, and writing skills to studies of genre-specific writing like novels, poetry, short stories, films, graphic texts, and essays, Collin College's English courses offer choices for every student.

Composition and rhetoric courses focus on writing as a process, requiring planning, analysis, and research, which allows students to express opinions about the material clearly and with conviction. Students can take their writing

a step further with technical writing and electives in creative writing.

Sophomore-level courses include surveys in British, American, and World Literatures as well as Forms of Literature courses, which include the study of poetry, drama, short stories, novels, graphic texts, and/or film.

Writing Centers are available on each campus to provide students with professional consultations in writing and revising assignments.

### **Recommended Electives**

ENGL 1301	Composition I
ENGL 1302	Composition II
ENGL 2307	Creative Writing I
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 2341	Forms of Literature

## **ENVIRONMENTAL SCIENCE**

Gain a greater understanding of the world and our natural environment with environmental science courses at Collin College. Environmental science is a multidisciplinary field concerned with the interaction of processes that shape the environment, understanding the potential causes of environmental problems and exploring possible solutions to them.

Coursework in environmental science involves a number of disciplines, including the biological, chemical and physical sciences; occupational health and safety; engineering; economics; and law.

### **Recommended Electives**

ENVR 1401	Environmental Science I
ENVR 1402	Environmental Science II
BIOL 1406	Biology for Science Majors I
BIOL 1407	Biology for Science Majors II
BIOL 2406	Environmental Biology
CHEM 1411	General Chemistry I
GEOL 1403	Physical Geology
GEOL 1445	Oceanography
GEOL 1447	Introduction to Meteorology
MATH 1342	Elementary Statistical Methods
MATH 2413	Calculus I
PHYS 1401	College Physics I

## **FOREIGN LANGUAGES**

The ability to communicate effectively is important in our increasingly interconnected world. Would you like to learn

Arabic, Chinese, French, German, Italian, Japanese, Russian or Spanish? Collin College offers foreign language electives in each.

Beginning and intermediate classes in foreign languages will provide you with an essential language background for advanced study of the language. Whether you are just starting out in a new language or you have some prior education in the language, Collin College has great foreign language courses to sharpen your skills.

#### **Arabic**

ARAB 1411 Beginning Arabic I  
ARAB 1412 Beginning Arabic II

#### **Chinese**

CHIN 1411 Beginning Chinese I  
CHIN 1412 Beginning Chinese II  
CHIN 2311 Intermediate Chinese I  
CHIN 2312 Intermediate Chinese II

#### **French**

FREN 1411 Beginning French I  
FREN 1412 Beginning French II  
FREN 2311 Intermediate French I  
FREN 2312 Intermediate French II

#### **German**

GERM 1411 Beginning German I  
GERM 1412 Beginning German II  
GERM 2311 Intermediate German I  
GERM 2312 Intermediate German II

#### **Italian**

ITAL 1411 Beginning Italian I  
ITAL 1412 Beginning Italian II

#### **Japanese**

JAPN 1411 Beginning Japanese I  
JAPN 1412 Beginning Japanese II  
JAPN 2311 Intermediate Japanese I  
JAPN 2312 Intermediate Japanese II

#### **Russian**

RUSS 1411 Beginning Russian I  
RUSS 1412 Beginning Russian II  
RUSS 2311 Intermediate Russian I  
RUSS 2312 Intermediate Russian II

#### **Spanish**

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/Heritage Speakers I  
SPAN 2314 Spanish for Native/Heritage Speakers II

### **GEOGRAPHY**

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The world is a big place. Learn how natural processes and human interaction have affected the planet with coursework in geography at Collin College. Study the factors that make up the world around us, including physical changes in the land and how those changes create human movement across the planet.

#### **Recommended Electives**

GEOG 1301 Physical Geography  
GEOG 1302 Human Geography  
GEOG 1303 World Regional Geography

### **GEOLOGY**

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Learn about the physical processes that have shaped the earth over billions of years with coursework in geology. This coursework will provide you with a background for careers in natural resources, meteorology, energy, engineering, geophysics, environmental studies and education.

More than that, an Associate of Science degree with coursework in geology can prepare you for a Bachelor of Science degree at a university.

#### **Recommended Electives**

GEOL 1305 Environmental Science –  
Natural Disasters  
GEOL 1403 Physical Geology  
GEOL 1404 Historical Geology  
GEOL 1445 Oceanography  
GEOL 1447 Introduction to Meteorology  
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  
ENVR 1402 Environmental Science II  
MATH 1342 Elementary Statistical Methods  
MATH 2413 Calculus I  
MATH 2414 Calculus II  
PHYS 2425 University Physics I  
PHYS 2426 University Physics II

#### **Department Website:**

[www.collin.edu/departments/geology/index.html](http://www.collin.edu/departments/geology/index.html)

### **GOVERNMENT/POLITICAL SCIENCE**

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The mission of the Government Department at Collin College is to support students and the College's broader mission through excellence in undergraduate teaching and research. Through our focus on introductory coursework in the Department, we integrate the core fields of Political Science and Governance studies - American Politics, Comparative Politics, International Relations, and Public Law - to prepare them for successful careers in the discipline, including but not limited to law, journalism,



public administration, non-profit leadership, campaign management, political consulting, and academia. To this end, the Department of Government seeks to build highly knowledgeable students who are able to utilize the key core skills of critical thinking, evidence-based argumentation, verbal and written communication skills, working productively with diverse groups. All of this is achieved by our focus on training students to be active, informed, and contributing citizens and residents.

Political Science and Government involves the study of interesting and important topics about citizenship, government and politics. This includes analyzing the effects of citizens on government decision making, the responsibilities, powers and strength of government institutions, and the influence and behavior of elected officials and other civil servants. These topics are critical components of what political scientists know about American government and politics, state and local government, comparative government and politics, international relations, political behavior, political economy, political institutions, and political theory. Political scientists pay special attention to the design, implementation, and evaluation of laws and public policies that may affect people's well-being. In addition to this, political scientists analyze other components of governance beyond the institutions, including political parties, electoral systems, civil rights, constitutionalism, and political theory.

While students are allowed to take any course within the set of course offerings in a given semester, students are encouraged to complete the Political Science Field of Study to streamline the transfer of credit to any other public college or university in the State of Texas.

The Political Science Field of Study introduces the student to the structure of government institutions; the development and impact of constitutions; and contemporary issues affecting local, state, national, and international governments. The field also examines political systems, institutional development, as well as theoretical and direct applications of political behavior. As a field of study, it helps the student develop an understanding of how laws and public policy shape and interact with issues of political ideology, voting rights, gender, civil rights, and civil liberties. It further emphasizes the importance of civic engagement both inside and outside the classroom. By including MATH 1342, the student will learn how data is collected and understand the direct skills needed to statistically analyze various topics like public opinion, voting behavior, interstate conflict, and predicting judicial decisions. The study of Political Science and Government will allow the student to develop various marketable and transferable skills including critical thinking, leadership, and applied quantitative analysis that can be used in many career fields in the discipline. After

successfully completing the Political Science Field of Study, the courses will be transferred and applied to the Bachelor's degree in Political Science and Government at any public college or university in Texas as a block.

#### Recommended Electives

GOVT	2304	Introduction to Political Science
GOVT	2311	Mexican-American Politics
CRIJ	1301	Introduction to Criminal Justice
CRIJ	1306	Court Systems and Practices
CRIJ	1310	Fundamentals of Criminal Law
ECON	2301	Principles of Macroeconomics
ECON	2302	Principles of Microeconomics
MATH	1342	Elementary Statistical Methods
PHIL	2303	Introduction to Formal Logic
PHIL	2306	Introduction to Ethics
PHIL	2307	Introduction to Social and Political Philosophy
PSYC	2301	General Psychology
SOCI	2319	Minority Studies
SOCI	2306	Social Problems
X4XX		Foreign Language Sequence I
X4XX		Foreign Language Sequence II

#### Department Website:

<https://www.collin.edu/department/politicalscience/index.html>

See [Certificate – Political Science Field of Study](#)

#### HISTORY

History coursework offers foundational knowledge 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 History department also offers courses in Western Civilizations, Texas History, African American History, World Civilizations, and Mexican American History.

#### Recommended Electives

HIST	2301	Texas History
HIST	2311	Western Civilization I
HIST	2312	Western Civilization II
HIST	2321	World Civilizations I
HIST	2322	World Civilizations 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 Formal Logic
PSYC	2301	General Psychology
SOCI	1301	Introduction to Sociology
X4XX		Foreign Language Sequence I

## X4XX Foreign Language Sequence II

**Department Website:**

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

**KINESIOLOGY**

Kinesiology is the study of the mechanics of the human body. The degree prepares students by providing the scientific foundations necessary to successfully transfer and pursue a science degree in the area of kinesiology at a four-year college/university. Kinesiology courses lay the groundwork for a career as a physical therapist, an athletic or personal trainer, health educator, coach or in sports management. They also allow you to learn the knowledge and physical skills for lifetime sports and wellness through the KINE activity and theory classes.

**Athletic Training**

Athletic training encompasses the prevention, diagnosis, and intervention of emergency, acute and chronic medical conditions involving impairment, functional limitations and disabilities. Athletic trainers function under a physician's direction and are employed in a variety of settings including: athletic facilities, schools, clinics, hospitals, physician's offices, sports venues and more.

**Recommended Electives:**

BIOL	1322	Nutrition and Diet Therapy
KINE	1304	Personal/Community Health
KINE	1306	First Aid
KINE	1338	Concepts of Physical Fitness
KINE	2356	Care and Prevention of Athletic Injuries

**Exercise Science**

In these courses, you will gain a greater understanding of the scientific principles needed for personal training, fitness leadership, teaching and coaching sports performance and to improve the functionality and quality of human life.

**Recommended Electives:**

KINE	(1100, 2100, 1106, 2106, 1129, 1131)	
KINE	1164	Introduction to Physical Fitness and Wellness
KINE	1301	Foundations of Kinesiology
KINE	1304	Personal / Community Health
KINE	1306	First Aid
KINE	1338	Concepts of Physical Fitness

**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.

**Recommended Electives:**

KINE	1301	Foundations of Kinesiology
KINE	1336	Introduction to Sports Management

**Department Website:**

<https://www.collin.edu/department/kinesiology/>

**MATHEMATICS**

Collin College's mathematics department offers the courses you need to prepare for an associate degree or for advanced math, science or engineering studies at a four-year college or university. From basic college algebra to advanced calculus, the Math Department provides the guidance you need, no matter your skill level.

Most courses include graphing calculator or computer use and lab components that emphasize applications of mathematical concepts. Collin College features a mathematics laboratory providing personal, computer and audio-visual tutorial assistance.

**Recommended Electives**

MATH	1314 <sup>1</sup>	College Algebra
MATH	1316	Plane Trigonometry
MATH	1342	Elementary Statistical Methods
MATH	1414 <sup>1</sup>	College Algebra
MATH	2305	Discrete Mathematics
MATH	2318	Linear Algebra
MATH	2320	Differential Equations
MATH	2412	Pre-Calculus Math
MATH	2413	Calculus I
MATH	2414	Calculus II
MATH	2415	Calculus III
ENGL	2311	Technical and Business Writing
ENGL	23XX	Any Literature course
PHIL	2303	Introduction to Formal Logic

*1. Students may take either MATH 1314 or MATH 1414, but not both.*

**Department Website:**

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

**MUSIC**

Collin College's Department of Music offers the courses you need to prepare for an associate degree or for advanced musical studies at a four-year college or university. Areas of concentration include instrumental performance (winds, brass, strings, percussion, piano, guitar, harp), vocal performance (including opera and commercial), and instrumental and vocal jazz. Courses for non-performance music majors are available for composers, jazz arrangers, songwriters and conductors.

The college is also home to several music ensembles open to both non-majors and music majors. Ensembles includes instrumental jazz combos, big band, guitar, keyboard, opera, vocal jazz, acapella pop, wind ensemble, and string ensemble.

In addition to the applied lessons and ensemble, the curriculum offers the required music theory, ear training, keyboard skills, and music literature, that all music majors must complete during their freshman and sophomore years. All of the coursework culminates in a Field of Study Associate of Arts or the Field of Study Certificate.

The music faculty hold applied study and ensemble auditions as well as advising for music majors on the Monday before each long (Fall and Spring) semesters.

Music majors are required to audition for ensembles and applied lesson study. The Fine Arts office provides contact information for ensemble directors or applied lesson instructors. There is a mandatory music orientation available the Monday before each long (Fall and Spring) semesters.

Applied lesson study in music is comprised of weekly one-on-one meetings in addition to attending and performing on the weekly departmental series, "The Wednesday Noon Recitals". Ensemble rehearsals are held weekly and culminate in one or more performances including an evening performance towards the end of the semester. Other performance opportunities are also available and may be required.

#### Department Website:

<http://www.collin.edu/department/music/>

See [AA – Music Field of Study Certificate – Music Field of Study Workforce Commercial Music \(AAS\) Program](#)

### PHILOSOPHY

Before there was the scientific method, there was philosophy. Literally the "love of wisdom," philosophy seeks to explain the world through examination. The study of philosophy is foundational if you are dedicated to the pursuit of knowledge.

When you study philosophy at Collin College, you will become acquainted with the main problems of philosophy, examining those problems from multiple perspectives, so that a greater truth can be determined. You will come away with a greater understanding of philosophical thinking and a better understanding of the people around you.

#### Recommended Electives

PHIL	1301	Introduction to Philosophy
PHIL	1304	Introduction to World Religions

PHIL	2303	Introduction to Formal 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

The photography world is now the imaging universe. Contemporary photography balances technique and creativity to develop imagery that evokes emotion and human understanding. As a student in Collin College's photography program, you will learn to use professional-level equipment and software to shape that narrative with imagination and a deeper understanding of process and impact.

Photography coursework will improve the visual literacy you will need 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. From techniques to improve your candid photography to the best way to light for studio portraiture, Collin College can teach and inspire you to do great work. Subjects include intensive artistic investigations into: traditional film-based photography techniques and approaches; advanced darkroom and alternative processes; studio lighting for portrait, fashion and product; comprehensive creative solutions; and contemporary digital workflow.

Our state-of-the-art photography facility is one of the best in the state. It houses a fully equipped 20 work-station MAC Lab with Epson printers and a digital media room with Nikon / Imacon / Epson scanners and multiple large-format Epson printers. We have a split studio with Profoto strobe set-ups and a continuous artificial lighting option for digital video. Our darkroom includes 20 4x5 enlargers with a film processing room and alternative processing room. Equipment check out for digital, 35mm, medium- and large-format film cameras, and portable strobe lighting available.

#### Recommended Electives

ARTS	1313	Foundations of Art
ARTS	2348	Digital Media
ARTS	2356	Photography I
ARTS	2357	Photography II

PHTC	1300	Digital Photography II
PHTC	1371	Book, Design, and Presentation
PHTC	2380	Cooperative Education – Commercial Photography

**Department Website:**

<http://www.collin.edu/department/photography/>

See workforce [Commercial Photography \(AAS\)](#)

**PHYSICS**

The science of physics seeks to understand the physical universe and deals with the behavior of matter and energy at their most fundamental levels. By observation, physicists search for the basic principles that explain natural phenomena.

Many physics courses are offered online or in hybrid formats. The courses that are part of the sequence for the AA or AS degree are also potentially offered in 14-week formats as student demand and instructor availability permit.

**Recommended Electives**

PHYS	1401	College Physics I
PHYS	1402	College Physics II
PHYS	1403	Stars and Galaxies
PHYS	1404	Solar System
PHYS	1405	Conceptual Physics
PHYS	1410	Physics of Music and Sound
PHYS	1415	Physical Science I
PHYS	1417	Physical Science II
PHYS	2425	University Physics I
PHYS	2426	University Physics II
CHEM	1411	General Chemistry I
CHEM	1412	General Chemistry II
ENGL	2311	Technical and Business Writing
GEOL	1403	Physical Geology
GEOL	1404	Historical Geology
MATH	2318	Linear Algebra
MATH	2320	Differential Equations
MATH	2412	Pre-Calculus Math
MATH	2413	Calculus I
MATH	2414	Calculus II
MATH	2415	Calculus III

**PSYCHOLOGY**

Broaden your understanding of the human mind or lay the groundwork for a career in psychology with coursework at Collin College.

Collin College's psychology coursework features a variety of introductory courses exploring the principles of behavior and mental processes. Course offerings include general psychology, life-span psychology, human sexuality,

psychology of personality and social psychology. 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.

An Associate of Arts degree with coursework 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.

**Recommended Electives**

EDUC	1300	Learning Framework
PSYC	2301	General Psychology
PSYC	2306	Human Sexuality
PSYC	2314	Life-Span Growth and Development
PSYC	2315	Psychology of Adjustment
PSYC	2316	Psychology of Personality
PSYC	2317	Statistical Methods in Psychology
PSYC	2319	Social Psychology
PSYC	2320	Abnormal Psychology
PSYC	2330	Biological Psychology
SOCI	1301	Introduction to Sociology
SOCI	1306	Social Problems
SOCI	2301	Marriage & the Family

**Department Website:**

<http://www.collin.edu/department/psychology/>

See [Certificate – Psychology Field of Study](#)

**SOCIOLOGY**

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 and society at large. Sociology coursework at Collin College is designed to provide you with essential life skills and a deeper understanding of yourself and others. Critical thinking skills and a global perspective – attributes that will benefit you regardless of your major – are strongly emphasized.

**Recommended Electives**

SOCI	1301	Introduction to Sociology
SOCI	1306	Social Problems
SOCI	2301	Marriage & the Family
SOCI	2306	Human Sexuality
SOCI	2319	Minority Studies
SOCI	2340	Drug Use and Abuse

**Department Website:**

<https://www.collin.edu/department/sociology/>

See [Certificate – Sociology Field of Study](#)

### **THEATRE/DRAMA**

Theatre coursework and productions at Collin College are nationally recognized, as are its faculty, staff and guest artists. Alumni are working in regional and Broadway theatres, television, film and other media. They are actors, directors, designers, stage managers, technicians, writers, producers and more. Many are educators.

Collin Theatre Center hosts the annual North Texas Drama Auditions, which bring hundreds of college and training program representatives to our campus to recruit top talent. While many alumni go on to complete BA and BFA degrees, others transfer to conservatories or go directly into the professions listed above. Still other students develop creative and communication skills which they apply to a wide range of career choices.

Theatre courses introduce students to the historical, theoretical and practical elements of theatre. Each year the theatre department produces five mainstage shows (at least one musical), a festival of new plays and several student directed works. These “living labs” give the students hands-on experiences through performance, shop and crew assignments. A maymester Shakespeare Intensive and summer Shakespeare production are season highlights.

Collin College’s 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 three dressing rooms, a theatre box office, a costume vault and construction shop, and a scene and paint shop in addition to numerous acting and directing classroom spaces.

Collin Theatre Center encourages interdisciplinary studies. Students interested in musical theatre can enroll in courses such as MUSI 1183 Voice (singing), MUEN 1154 Musical Theatre Ensemble, DANC 1110 Tap Dance and DANC 1247 Beginning Jazz Dance. Fine Arts, Communications and Video Production are a few of the disciplines that provide a wide range of opportunities for our theatre students and help them prepare for the careers of the future.

### **Recommended Electives**

DRAM 1120	Theater Practicum I
DRAM 1121	Theater Practicum II
DRAM 1310	Theater Appreciation
DRAM 1322	Stage Movement
DRAM 1330	Stagecraft I
DRAM 1341	Stage Makeup
DRAM 1342	Costume Technology
DRAM 1351	Acting I
DRAM 1352	Acting II
DRAM 2331	Stagecraft II
DRAM 2336	Voice for the Actor
DRAM 2361	History of Theater I
DRAM 2362	History of Theater II
DRAM 2366	Film Appreciation
DRAM 2389	Academic Co-op – Drama

### **Department Website:**

[www.collintheatrecenter.com](http://www.collintheatrecenter.com)

See [Certificate – Drama Field of Study: General Track](#)  
[Certificate – Drama Field of Study: Performance Track](#)  
[Certificate – Drama Field of Study: Design/Technical Track](#)



## FIELD OF STUDY (FOS) CERTIFICATES

A Field of Study is a set of courses that will transfer and apply to a corresponding bachelor's level degree at a Texas college or university. Both the Field of Study and the Core Curriculum courses are transferrable for full academic credit to any public college or university in Texas. Students who complete the Field of Study block of courses will earn a certificate in that Field of Study.

### FIELD OF STUDY (FOS) CERTIFICATES

*For program information and descriptions, see Areas of Study section.*

#### BUSINESS

##### Program Option:

##### Certificate – Business Field of Study

##### Certificate – Business Field of Study

24 credit hours

##### Required General Education Core Courses

6 credit hours

ECON	2301	Principles of Macroeconomics
MATH	1324	Mathematics for Business and Social Sciences

##### Other Required Courses

18 credit hours

ACCT	2301	Principles of Financial Accounting
ACCT	2302	Principles of Managerial Accounting
BCIS	1305	Business Computer Applications
BUSI	1301	Business Principles
BUSI	2305	Business Statistics
ECON	2302	Principles of Microeconomics

*The Required General Education Core courses listed above satisfy the Social and Behavioral Sciences component, and the Mathematics component.*

#### COMMUNICATION

##### Program Option:

##### Certificate – Communications Field of Study

##### Certificate – Communications Field of Study

12 credit hours

##### Required Courses

SPCH	1311	Introduction to Speech Communication
SPCH	1315	Public Speaking
SPCH	1318	Interpersonal Communication
SPCH	1321	Business and Professional Communication

#### COMPUTER SCIENCE

##### Program Option:

##### Certificate – Computer Science & Information Technology Field of Study

##### Certificate – Computer Science & Information Technology Field of Study

34 credit hours

##### Required General Education Core Courses

12 credit hours

MATH	2413	Calculus I <sup>1</sup>
PHYS	2425	University Physics I <sup>1</sup>
PHYS	2426	University Physics II <sup>1</sup>

##### Other Required Courses

22 credit hours

COSC	1436	Programming Fundamentals I <sup>2</sup>
COSC	1437	Programming Fundamentals II <sup>2</sup>
COSC	2325	Computer Organization <sup>3</sup>
COSC	2436	Programming Fundamentals III <sup>2</sup>
MATH	2305	Discrete Mathematics
MATH	2414	Calculus II <sup>1</sup>

- It is recommended that students complete the math sequence, physics sequence, and computer science sequence at the same institution to reduce the likelihood of potential gaps in the curriculum.*
- COSC 1436 and COSC 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.*
  - COSC 1436 is not part of the Computer Science major requirements at The University of Texas at Austin, the University of Texas at Arlington, and Texas A&M University.*
  - COSC 1437 is not part of the Computer Science major requirements at The University of Texas at Austin. Preparatory courses such as COSC 1436 and COSC 1437 will assist students who need additional background but do not apply toward the computer science major requirements.*
- COSC 2325 is not part of the Computer Science major requirements at The University of Texas at Austin, or Texas A&M University but may be applied to general degree requirements.*

#### CRIMINAL JUSTICE

##### Program Option:

##### Certificate – Criminal Justice Field of Study

##### Certificate – Criminal Justice Field of Study

15 credit hours

##### Required Courses

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

## **DRAMA**

### **Program Options:**

**Certificate – Drama Field of Study: General Track**

**Certificate – Drama Field of Study: Performance Track**

**Certificate – Drama Field of Study: Design/Technical Track**

### **Certificate – Drama Field of Study: General Track**

Required Courses

22 credit hours

DRAM	1351	Acting I
DRAM	1330	Stagecraft I
DRAM	2355	Script Analysis
DRAM	1341	Stage Makeup
DRAM	1342	Costume Technology
DRAM	2336	Voice for the Actor
DRAM	1120	Theater Practicum I
DRAM	1121	Theater Practicum II
DRAM	2120	Theater Practicum III
DRAM	2121	Theater Practicum IV

### **Certificate – Drama Field of Study: Performance Track**

Required Courses

22 credit hours

DRAM	1351	Acting I
DRAM	1330	Stagecraft I
DRAM	2355	Script Analysis
DRAM	1322	Stage Movement
DRAM	1352	Acting II
DRAM	2336	Voice for the Actor
DRAM	1120	Theater Practicum I
DRAM	1121	Theater Practicum II
DRAM	2120	Theater Practicum III
DRAM	2121	Theater Practicum IV

### **Certificate – Drama Field of Study: Design/Technical Track**

Required Courses

22 credit hours

DRAM	1351	Acting I
DRAM	1330	Stagecraft I
DRAM	2355	Script Analysis
DRAM	1342	Costume Technology
DRAM	2331	Stagecraft II
DRAM	2335	Theater Design

DRAM	1120	Theater Practicum I
DRAM	1121	Theater Practicum II
DRAM	2120	Theater Practicum III
DRAM	2121	Theater Practicum IV

## **ECONOMICS**

### **Program Option:**

**Certificate – Economics Field of Study: Bachelor of Science Track**

### **Certificate – Economics Field of Study: Bachelor of Science Track**

13 credit hours

Required Courses

ECON	2301	Principles of Macroeconomics
ECON	2302	Principles of Microeconomics
MATH	2413	Calculus I
BUSI	2305	Business Statistics

## **ENGINEERING**

### **Program Options:**

**Certificate – Civil Engineering Field of Study**

**Certificate – Electrical Engineering Field of Study**

**Certificate – Mechanical Engineering Field of Study**

### **Certificate – Civil Engineering Field of Study**

Prerequisites

7 Credit Hours

MATH	2412	Pre-Calculus Math (or equivalent /higher)
MATH	1314	College Algebra ( or equivalent/ higher)

### **Certificate – Civil Engineering Field of Study**

39 Credit Hours

CHEM	1409	General Chemistry for Engineering Majors
ENGR	1304	Engineering Graphics
ENGR	2301	Engineering Mechanics I
ENGR	2302	Engineering Mechanics II
ENGR	2332	Mechanics of Materials
MATH	2320	Differential Equations
MATH	2413	Calculus I
MATH	2414	Calculus II
MATH	2415	Calculus III
PHYS	2425	University Physics I
PHYS	2426	University Physics II

### **Certificate – Electrical Engineering Field of Study**

Prerequisites

7 Credit Hours



MATH	2412	Pre-Calculus Math (or equivalent/higher)
MATH	1314	College Algebra ( or equivalent/higher)

### **Certificate – Electrical Engineering Field of Study**

31 Credit Hours

COSC	1420	C Programming
ENGR	2105	Electrical Circuits I Laboratory
ENGR	2305	Electrical Circuits I
MATH	2320	Differential Equations
MATH	2413	Calculus I
MATH	2414	Calculus II
MATH	2415	Calculus III
PHYS	2425	University Physics I
PHYS	2426	University Physics II

### **Certificate – Mechanical Engineering Field of Study**

Prerequisites  
10 Credit Hours

MATH	2412	Pre-Calculus Math (or equivalent/higher)
MATH	1314	College Algebra ( or equivalent/higher)
MATH	2320	Differential Equations prerequisite/concurrent

### **Certificate – Mechanical Engineering Field of Study**

36 Credit Hours

CHEM	1409	General Chemistry for Engineering Majors
ENGR	2301	Engineering Mechanics I
ENGR	2302	Engineering Mechanics II
ENGR	2305	Electrical Circuits I
ENGR	2332	Mechanics of Materials
MATH	2413	Calculus I
MATH	2414	Calculus II
MATH	2415	Calculus III
PHYS	2425	University Physics I
PHYS	2426	University Physics II

### **FINE ARTS**

#### **Program Options:**

**Certificate – Fine Arts Field of Study: General Studies Track**

**Certificate – Fine Arts Field of Study: Studio Track**

### **Certificate – Fine Arts Field of Study: General Studies Track**

24 credit hours

Required Courses:

ARTS	1303	Art History I (Prehistoric to the 14th Century)
ARTS	1304	Art History II (14th Century to the Present)
ARTS	1311	Design I (2-Dimensional)
ARTS	1312	Design II (3-Dimensional)
ARTS	1316	Drawing I
ARTS	2348	Digital Media
ARTS	2316	Painting I
ARTS	2326	Sculpture

### **Certificate – Fine Arts Field of Study: Studio Track**

27 credit hours

Required Courses:

ARTS	1303	Art History I (Prehistoric to the 14th Century)
ARTS	1304	Art History II (14th Century to the Present)
ARTS	1311	Design I (2-Dimensional)
ARTS	1312	Design II (3-Dimensional)
ARTS	1316	Drawing I
ARTS	2348	Digital Media
ARTS	1317	Drawing II
ARTS	2346	Ceramics I
ARTS	2323	Life Drawing

### **MUSIC**

#### **Program Option:**

**Certificate – Music Field of Study**

### **Certificate – Music Field of Study**

31 credit hours

Ensemble  
4 credit hours  
MUEN X1XX Ensemble (4 semesters)

Applied Study  
8 credit hours  
MUAP X2XX Applied Music (4 semesters)

Theory / Sight Singing & Ear Training  
16 credit hours

MUSI	1116	Sight Singing & Ear Training I
MUSI	1117	Sight Singing & Ear Training II
MUSI	1311	Music Theory I
MUSI	1312	Music Theory II
MUSI	2116	Sight Singing & Ear Training III
MUSI	2117	Sight Singing & Ear Training IV
MUSI	2311	Music Theory III
MUSI	2312	Music Theory IV

#### **Literature**

3 credit hours

MUSI 1307 Music Literature

#### Recommended Courses for Piano Proficiency

Keyboard (Piano) Competency

4 credit hours

MUSI 1181 Piano Class I

MUSI 1182 Piano Class II

MUSI 2181 Piano Class III

MUSI 2182 Piano Class IV

Baccalaureate Music programs require piano proficiency although the piano skills courses are not part of the guaranteed transfer block. Students are encouraged to take the keyboard competency courses in addition to completion of the Music Field of Study prior to transfer. Students may take a barrier exam to identify the need to take the courses.

#### **POLITICAL SCIENCE**

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##### **Program Option:**

**Certificate – Psychology Field of Study**

##### **Certificate – Political Science Field of Study**

Required Courses

12 credit hours

GOVT 2304 Introduction to Political Science

GOVT 2305 Federal Government (Federal  
Constitution & Topics)

GOVT 2306 Texas Government (Texas Constitution  
& Topics)

MATH 1342 Elementary Statistical Methods

#### **PSYCHOLOGY**

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##### **Program Option:**

**Certificate – Psychology Field of Study**

##### **Certificate – Psychology Field of Study**

Required Courses

18 credit hours

PSYC 2301 General Psychology

PSYC 2314 Life-Span Growth and Development

PSYC 2317 Statistical Methods in Psychology

PSYC 2319 Social Psychology

PSYC 2320 Abnormal Psychology

PSYC 2330 Biological Psychology

#### **SOCIOLOGY**

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##### **Program Option:**

**Certificate – Sociology Field of Study**

##### **Certificate – Sociology Field of Study**

Required Courses

12 credit hours

SOCI 1301 Introduction to Sociology

SOCI 1306 Social Problems

SOCI 2301 Marriage & the Family

SOCI 2319 Minority Studies

## ASSOCIATE OF ARTS (AA) GENERAL STUDIES AND ASSOCIATE OF ARTS WITH FIELD OF STUDY DEGREES

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 and degree applicability with a Collin College academic advisor and/or visit TransferU at: <http://www.collin.edu/transferu/index.html>.

There are two options to pursue for the Associate of Arts Degree (AA):

- Associate of Arts Degree (AA) – General Studies
- Associate of Arts Degree (AA) – Field of Study

### ASSOCIATE OF ARTS DEGREES (AA) – GENERAL STUDIES

To earn an Associate of Arts (AA) degree with no field of study, complete the 42 credit hour General Education Core, 18 credit hours of general studies electives and any other Associate of Arts (AA) degree requirements. Check with your transfer institution before registering for general studies electives to make sure your courses will be degree applicable to your bachelor degree at the transfer institution.

### ASSOCIATE OF ARTS DEGREES (AA) – FIELD OF STUDY

#### BUSINESS

##### **Program Option:**

##### **AA - Business Field of Study**

An Associate of Arts with a Business Field of Study requires 60 credit hours, including the 24 credit hours Business Field of Study and 36 credit hours of General Education Core. Check with your transfer institution before registering for general studies electives to make sure your courses will be degree-applicable to your bachelor degree at the transfer institution.

#### AA - Business Field of Study

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

BUSI 1301 Business Principles  
ENGL 1301 Composition I  
GEN ED [Creative Arts Course](#)  
HIST 1301 [United States History I](#)

MATH 1324 [Mathematics for Business and Social Sciences](#)

##### **Second Semester**

BCIS 1305 Business Computer Applications  
ECON 2301 [Principles of Macroeconomics](#)  
ENGL 1302 [Composition II](#)  
SPCH 1321 [Business and Professional Communication \(see options\)](#)  
HIST 1302 [United States History II](#)

#### **SECOND YEAR**

##### **First Semester**

ACCT 2301 Principles of Financial Accounting  
ECON 2302 Principles of Microeconomics  
GEN ED [Collin Area 2 Course \(see options\)](#)<sup>1</sup>  
GOVT 2305 [Federal Government \(Federal constitution and topics\)](#)  
GEN ED [Life and Physical Sciences course](#)

##### **Second Semester**

ACCT 2302 Principles of Managerial Accounting  
BUSI 2305 Business Statistics  
GOVT 2306 [Texas Government \(Texas constitution and topics\)](#)  
GEN ED [Language, Philosophy & Culture course](#)  
GEN ED [Life and Physical Sciences course](#)

*1. Select course with one credit hour to meet 60 credit hour degree requirement.*

#### CRIMINAL JUSTICE

##### **Program Option:**

##### **AA – Criminal Justice Field of Study**

To earn an associate degree, you must complete the 42 credit hour General Education Core, the 15 credit hour Criminal Justice Field of Study, and 3 credit hour technical criminal justice elective. Check with your transfer institution to confirm that the technical elective you choose will be applied to your bachelor degree plan.

#### AA – Criminal Justice Field of Study

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

CRIJ 1301 Introduction to Criminal Justice  
CRIJ 1306 Court Systems and Practices  
GEN ED [Language, Philosophy & Culture course](#)  
ENGL 1301 [Composition I](#)  
HIST 1301 [United States History I](#)

**Second Semester**

CRIJ 1310 Fundamentals of Criminal Law  
ENGL 1302 Composition II  
GEN ED Speech course  
GEN ED Mathematics course  
HIST 1302 United States History II

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

CRIJ 2313 Correctional Systems and Practices  
GEN ED Creative Arts Course  
EDUC 1100 Learning Framework  
GOVT 2305 Federal Government (Federal constitution and topics)  
GEN ED Life and Physical Sciences course

**Second Semester**

CRIJ 2328 Police Systems and Practices  
 ELECTIVE\*  
GOVT 2306 Texas Government (Texas constitution and topics)  
GEN ED Social and Behavioral Sciences course  
GEN ED Life and Physical Sciences course

\* Elective (3 credit hours): CRIJ 1307, CRIJ 1313, CRIJ 2314, or CRIJ 2323

**MUSIC****Program Option:****AA – Music Field of Study**

An Associate of Arts with a Music Field of Study requires 60 credit hours, including 35 credit hours of music coursework and 25 credit hours of General Education Core. Check with your transfer institution before registering for general studies electives to make sure your courses will be degree-applicable to your bachelor degree at the transfer institution.

This degree plan does not require completion of the Core Curriculum. Instead, students are obligated to satisfy the Field of Study (FOS). Students who wish to complete the Core Curriculum at Collin College should meet with an Academic Advisor to discuss the various options for completing the Core Curriculum.

**AA – Music Field of Study**

60 credit hours

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

MUSI 1311 Music Theory I  
 MUSI 1116 Sight Singing and Ear Training I  
 MUEN X1XX Ensemble  
 MUAP X2XX Applied Music  
ENGL 1301 Composition I

HIST 1301 United States History I

**Second Semester**

MUSI 1312 Music Theory II  
 MUSI 1117 Sight Singing and Ear Training II  
 MUEN X1XX Ensemble  
 MUAP X2XX Applied Music  
GEN ED Mathematics course  
HIST 1302 United States History II

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

MUSI 2311 Music Theory III  
 MUSI 2116 Sight Singing and Ear Training III  
MUSI 1307 Music Literature  
 MUEN X1XX Ensemble  
 MUAP X2XX Applied Music  
GOVT 2305 Federal Government (Federal constitution and topics)  
GEN ED Life and Physical Sciences course

**Second Semester**

MUSI 2312 Music Theory IV  
 MUSI 2117 Sight Singing and Ear Training IV  
 MUEN X1XX Ensemble  
 MUAP X2XX Applied Music  
GOVT 2306 Texas Government (Texas constitution and topics)  
GEN ED Social and Behavioral Sciences course  
GEN ED Life and Physical Sciences course

## ASSOCIATE OF SCIENCE (AS) GENERAL STUDIES AND ASSOCIATE OF SCIENCE WITH FIELD OF STUDY DEGREES

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 and degree applicability with the Collin College academic advisor and/or visit TransferU at: <http://www.collin.edu/transferu/index.html>.

There are two options to pursue for the Associate of Science Degree (AS):

- Associate of Science Degree (AS) – General Studies
- Associate of Science Degree (AS) – Field of Study

### ASSOCIATE OF SCIENCE DEGREES (AS) – GENERAL STUDIES

To earn an Associate of Science (AS) degree with no field of study, complete the 42 credit hour General Education Core, 18 credit hours of general studies electives and any other Associate of Arts (AS) degree requirements. Check with your transfer institution before registering for general studies electives to make sure your courses will be degree applicable to your bachelor degree at the transfer institution.

### ASSOCIATE OF SCIENCE DEGREES (AS) – FIELD OF STUDY

*For program descriptions, see Emphasis Areas of Study section.  
For Field of Study Certificate requirements, see Field of Study section.*

#### ENGINEERING

##### Program Options:

- AS – Civil Engineering Field of Study**
- AS – Electrical Engineering Field of Study**
- AS – Mechanical Engineering Field of Study**

An Associate of Science with an Engineering Field of Study requires 60 credit hours, including the required field of study coursework and the remaining credit hours of General Education Core. Check with your transfer institution before registering for general studies electives to make sure your courses will be degree-applicable to your bachelor degree at the transfer institution.

These degree plans do not require completion of the Core Curriculum. Instead, students are obligated to satisfy the

Field of Study (FOS). Students who wish to complete the Core Curriculum at Collin College should meet with an Academic Advisor to discuss the various options for completing the Core Curriculum.

#### AS – Civil Engineering Field of Study

60 credit hours

##### FIRST YEAR

###### First Semester

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>ENGR</u>	<u>1304</u>	<u>Engineering Graphics</u>
<u>GEN ED</u>		<u>Creative Arts</u> course
<u>HIST</u>	<u>1301</u>	<u>United States History I</u>
<u>MATH</u>	<u>2413</u>	<u>Calculus I</u> <sup>1</sup>

###### Second Semester

<u>ENGL</u>	<u>2311</u>	<u>Technical and Business Writing</u>
<u>HIST</u>	<u>1302</u>	<u>United States History II</u>
<u>MATH</u>	<u>2414</u>	<u>Calculus II</u>
<u>PHYS</u>	<u>2425</u>	<u>University Physics I</u>

##### SECOND YEAR

###### First Semester

<u>ENGR</u>	<u>2301</u>	<u>Engineering Mechanics I</u>
<u>GOVT</u>	<u>2305</u>	<u>Federal Government (Federal constitution and topics)</u>
<u>MATH</u>	<u>2415</u>	<u>Calculus III</u>
<u>PHYS</u>	<u>2426</u>	<u>University Physics II</u>

###### Second Semester

<u>CHEM</u>	<u>1409</u>	<u>General Chemistry for Engineering Majors</u>
<u>ENGR</u>	<u>2302</u>	<u>Engineering Mechanics II</u>
<u>ENGR</u>	<u>2332</u>	<u>Mechanics of Materials</u>
<u>GOVT</u>	<u>2306</u>	<u>Texas Government (Texas constitution and topics)</u>
<u>MATH</u>	<u>2320</u>	<u>Differential Equations</u>

*1. Students should consult with an academic advisor since one or more mathematics courses may be required before enrolling in MATH 2413.*

#### AS – Electrical Engineering Field of Study

60 credit hours

##### FIRST YEAR

###### First Semester

<u>COSC</u>	<u>1420</u>	<u>C Programming</u>
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>GEN ED</u>		<u>Creative Arts</u> course
<u>HIST</u>	<u>1301</u>	<u>United States History I</u>
<u>MATH</u>	<u>2413</u>	<u>Calculus I</u> <sup>1</sup>

**Second Semester**

<u>ENGL</u>	<u>2311</u>	<u>Technical and Business Writing</u>
<u>HIST</u>	<u>1302</u>	<u>United States History II</u>
<u>MATH</u>	<u>2414</u>	<u>Calculus II</u>
<u>PHYS</u>	<u>2425</u>	<u>University Physics I</u>

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

<u>ENGR</u>	<u>1201</u>	<u>Introduction to Engineering</u>
<u>GOVT</u>	<u>2305</u>	<u>Federal Government (Federal constitution and topics)</u>
<u>MATH</u>	<u>2415</u>	<u>Calculus III</u>
<u>PHYS</u>	<u>2426</u>	<u>University Physics II</u>

**Second Semester**

<u>ENGR</u>	<u>2105</u>	<u>Electric Circuits I Laboratory</u>
<u>ENGR</u>	<u>2305</u>	<u>Electric Circuits I</u>
<u>GEN ED</u>		<u>Language, Philosophy &amp; Cultural</u> course
<u>GEN ED</u>		<u>Social / Behavioral Sciences</u> course
<u>GOVT</u>	<u>2306</u>	<u>Texas Government (Texas constitution and topics)</u>
<u>MATH</u>	<u>2320</u>	<u>Differential Equations</u>

1. Students should consult with an academic advisor since one or more mathematics courses may be required before enrolling in MATH 2413.

**AS – Mechanical Engineering Field of Study**

60 credit hours

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

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>GEN ED</u>		<u>Creative Arts</u> course
<u>GOVT</u>	<u>2306</u>	<u>Texas Government (Texas constitution and topics)</u>
<u>HIST</u>	<u>1301</u>	<u>United States History I</u>

MATH 2413 Calculus I<sup>1</sup>

**Second Semester**

<u>ENGL</u>	<u>2311</u>	<u>Technical and Business Writing</u>
<u>HIST</u>	<u>1302</u>	<u>United States History II</u>
<u>MATH</u>	<u>2414</u>	<u>Calculus II</u>
<u>PHYS</u>	<u>2425</u>	<u>University Physics I</u>

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

<u>ENGR</u>	<u>2301</u>	<u>Engineering Mechanics I</u>
<u>GOVT</u>	<u>2305</u>	<u>Federal Government (Federal constitution and topics)</u>
<u>MATH</u>	<u>2415</u>	<u>Calculus III</u>
<u>PHYS</u>	<u>2426</u>	<u>University Physics II</u>

**Second Semester**

<u>CHEM</u>	<u>1409</u>	<u>General Chemistry for Engineering Majors</u>
<u>ENGR</u>	<u>2302</u>	<u>Engineering Mechanics II</u>
<u>ENGR</u>	<u>2305</u>	<u>Electric Circuits I</u>
<u>ENGR</u>	<u>2332</u>	<u>Mechanics of Materials</u>
<u>MATH</u>	<u>2320</u>	<u>Differential Equations</u>

1. Students should consult with an academic advisor since one or more mathematics courses may be required before enrolling in MATH 2413.

## ASSOCIATE OF ARTS IN TEACHING (AAT)

Take the first steps toward becoming a teacher with an Associate of Arts in Teaching (AAT) degree from Collin College.

Collin College offers degree plans with three different specializations: early childhood through Grade 6, middle grades (grades 4-8) and secondary (grades 6-12, 7-12 or 8-12, depending on teaching content area). Specializations will prepare students for transfer to a baccalaureate program that leads to initial Texas teacher certification.

Students seeking all-level certifications (early childhood through Grade 12) like special education, theater, and art, can transfer EDUC 1301 and EDUC 2301 to baccalaureate institutions. Students should check with transfer advisors for other course requirements.

Students who complete the AAT will also complete 32 observation hours in a public school classroom.

Some TECA courses may be transferable in addition to the AAT. Students should contact their intended teacher education program for detailed information prior to registering. Contact names and phone numbers are available from a Collin College academic advisor, or go to <http://transferu.collin.edu>.

EDUC 1301 and EDUC 2301 are offered in eight-week, sixteen-week, and weekend express formats. Courses are offered face-to-face and online. EDUC 1301 is a prerequisite for EDUC 2301.

### AAT DEGREE REQUIREMENTS

For an AAT degree, you must meet the following requirements:

1. Earn a minimum of 60 college-level credit hours.
2. Complete the [General Education Core](#) 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 programs.
4. Earn a minimum of 15 credit hours (25% of the degree) at Collin College.
5. Complete all the courses listed for one of three AAT diplomas:
  - AAT – Early Childhood – Grade 6
  - AAT – Middle Grades (Grades 4-8)
  - AAT – High School (Grades 8-12)

### AAT – EARLY CHILDHOOD – GRADE 6

The AAT – Early Childhood – Grade 6 is designed for the student pursuing a Certification for only the elementary grades. 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	Mathematics for Teachers (Fundamentals of Mathematics I)
MATH	1351	Mathematics for Teachers II (Fundamentals of Mathematics II)
XXXX	x4xx	Additional Lab Science Course <sup>1</sup>

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

#### Recommended Elective to complete an AAT

2 credit hours

CDEC	1270 <sup>1</sup>	Introduction to Teaching ESL
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1. *Prior to enrolling in this course, please meet with the Education Academic Advisor or the Education Discipline Lead.*

### AAT – MIDDLE GRADES (GRADES 4-8)

The AAT – Middle Grades (Grades 4-8) is for grade 4-8 and Early Childhood-Grade 12 Special Education. The AAT is designed to satisfy 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	Mathematics for Teachers I (Fundamentals of Mathematics I)
MATH	1351	Mathematics for Teachers II (Fundamentals of Mathematics II)
XXXX	x4xx	Additional Lab Science course <sup>1</sup>

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

Recommended Electives to complete an AAT

2 credit hours

CDEC 1270 Introduction to Teaching ESL <sup>1</sup>

*1. Prior to enrolling in this course, please meet with the Education Academic Advisor or the Education Discipline Lead.*

### **AAT – HIGH SCHOOL (GRADES 8-12)**

The AAT – High School (Grades 8-12) is for grades 8-12 and other Early Childhood-Grade 12. Licensure is designed to satisfy the lower-division requirements for bachelor's degrees leading to initial Texas teacher certification in all grades 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

Education Courses

6 credit hours

EDUC 1301 Introduction to the Teaching Profession

EDUC 2301 Introduction to Special Populations

Additional Required Courses

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 College academic advisor and the receiving college or university for recommended courses in teaching field prior to registering.*

## WORKFORCE EDUCATION PROGRAMS

### Associate of Applied Science Degree (AAS)

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. Eighteen credit hours must be earned in residency at Collin College. 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, an AAS degree helps prepare students for life-long learning.

### AAS Degree Plan Requirements

AAS degrees require 60-68 credit hours with at least half of the coursework in a technical specialty area of the degree. All AAS degrees require a minimum of 15 credit hours of general education to develop the foundational academic skills of workforce education students.

### General Education Component

The general education component of all AAS degrees must contain a distribution of coursework from three broad categories of knowledge as shown below:

- At least three semester credit hours from humanities/fine arts;
- At least three semester credit hours from social/behavioral sciences; and,
- At least three semester credit hours from natural sciences/ mathematics.

Additionally, Collin College requires all students completing an AAS degree to earn three semester credit hours in communication by completing ENGL 1301-Composition I. The final general education course requirement is typically chosen by each workforce program to complement the technical content taught in each degree program.

Some AAS degree plans require specific general education courses in each workforce program to support the technical courses in the area of study. Other AAS degree plans allow students to choose from a selection of specified courses to meet their general education requirements.

See the specific degree plan for general education requirements. If options are listed in the degree plan, refer to the table of AAS General Education Courses to view the available course choices.

*(See the table of AAS General Education Courses on the right.)*

AAS GENERAL EDUCATION COURSES	
<b>See specific degree plan for required courses or any options. Refer to this table only if the degree plan indicates options are available or that students may select an alternative to the course listed.</b>	
<b>Natural Sciences/Mathematics Area</b>	
Mathematics	MATH 1314 or 1414, 1316, 1324, 1325, 1332*, 1342, 1350, 1351, 2305, 2318, 2320, 2412, 2413, 2414, 2415
Biology	BIOL 1406, 1407, 1408, 1409, 1414, 1415, 2401, 2402, 2404, 2406, 2416, 2420, 2421
Chemistry	CHEM 1405, 1411, 1412, 2423, 2425
Environmental Science	ENVR 1401, 1402
Geology	GEOG 1401, 1402, 1403, 1404, 1445, 1447
Physics	PHYS 1401, 1402, 1403, 1404, 1405, 1410, 1415, 1417, 2425, 2426
<b>Humanities/Fine Arts Area</b>	
Dance	DANC 2303
English	ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2341
History	HIST 2311, 2312, 2321, 2322
Humanities	HUMA 1301
Music	MUSI 1306, 1307, 1310
Philosophy	PHIL 1301, 1304, 2303, 2306, 2307, 2321
Theatre	DRAM 1310, 2361, 2362, 2366
Visual Arts	ARTS 1301, 1303, 1304, 1313
<b>Social/Behavioral Sciences Area</b>	
Anthropology	ANTH 2302, 2346, 2351
Economics	ECON 1301, 2301, 2302
Government	GOVT 2305, 2306
History	HIST 1301, 1302, 2301
Psychology	PSYC 2301
Sociology	SOCI 1301, 1306
<b>Speech Courses</b>	
<b>See the specific degree plan to determine if there is any Speech requirement. Not all AAS degree plans have this requirement.</b>	
Speech	SPCH 1311, 1315, 1321

\* Check with academic advising regarding transferability. Some majors or institutions may require a higher level mathematics course.

**Workforce Certificate Programs**

In addition to the Associate of Applied Science workforce degrees, Collin College offers a variety of certificates in applied science fields.

Collin College 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.

A Level One Certificate consists of 15-42 credit hours. Students in Level One Certificates are not required to meet the Texas Success Initiative (TSI) requirements. Level One Certificates do not have a general education requirement.

Level Two Certificate programs consist of 30-51 credit hours. Students in all Level Two Certificates must meet the requirements of the Texas Success Initiative (TSI). An Occupational Skills Award (OSA) 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 6-12 additional credit hours in a specific program area.

## **WORKFORCE DEGREE PLANS BY PROGRAM**

### **ACTIVITY CARE PROFESSIONAL**

#### **Department Website:**

<http://www.collin.edu/departments/activitycare>

#### **Program Options:**

**AAS – Activity Care Professional**

**Certificate Level 1 – Activity Care Professional**

**Certificate Level 1 – Activity Care Professional –  
Certified Nurse Aide (CNA)**

**OSA – Activity Care Professional – Certified Nurse  
Aide (CNA)**

By blending the certified nursing assistant (CNA) experience with activity professional training, Collin College's Activity Care Professional Program was designed. The rationale behind the ACP program is that “staying healthy and being involved in life is an important component of successful aging” (Bender, 2018). The need is imperative for individuals to be trained and certified to work in this field as “ten thousand people will turn 65 every day for the next 11 years and by 2029, 18 percent of the U.S. population will be 65 or older” (2018). Collin College's Activity Care Professional program provides students the unique opportunity to enter into a career path that will prepare them to help meet the healthcare profession's overarching need “to help older adults live longer, healthier, happier lives” (2018).

Students who graduate from Collin College's Activity Care Professional Program will have a greater likelihood of long-term success in the fastest growing, highest demand sector for tomorrow's health care professionals meeting the needs for holistic population health and well care. The opportunities in this field for advanced placement, growth, innovation, and further education are endless. These Activity Care Professionals will be not only be hired in long-term care, nursing home, adult day centers, and memory care facilities, but are integral to population health, community health, the rehabilitation service industry, in PACE (Program of All-Inclusive Care of the Elderly), hospice, home care, assisted living facilities, skilled nursing, geriatric services, Autism Speaks, Special Olympics, Veterans' Affairs, balance recovery, brain health and memory care services, in-home rehabilitation, and in athletic and sports rehabilitation services. The activity care professional's value to healthcare cannot be underestimated, given that those who work in this profession help to advance the physical, psychosocial, and cognitive wellbeing of clients and residents, meaningful engagement being the foundation of person-centered care (NAAPCC, 2018).

Traditional adult students wishing to enroll in the program should possess a High School Diploma or GED prior to beginning the course work. Students wishing to enter into the degree plan, will need to make application to do so, the requirements for which will include the need to take the test for Health Occupations with 75% minimum competency rate earned, which will be waived for those who hold current State of Texas CNA certification.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your Program Director and check with your licensing/certifying entity, if any, to determine your status.

The curriculum contains both transfer and workforce courses. The workforce courses are mainly offered at the Collin College Technical Campus and the Wylie Campus. For additional information, please contact the Health Professions Director at 214-491-6253.

### **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 forms. 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 ADMISSIONS REQUIREMENTS**

In addition to meeting Collin College Admission & Graduation Requirements, students would need to complete the following prior to acceptance to the program.

- Program Application
- Interview Drug Screening
- Background Check
- Test for Health Occupations with 75% minimum competency rate will need to be earned prior to entering into the Activity Professional program.
- In order to graduate from the program, students must successfully complete each course in the program with a grade of 75% C, or better.
- Students must also complete the 200 clinical hours (externship) in a long-term, nursing home, or assisted living residential care setting as assigned by the college.

Prior to enrolling in any clinical courses, students must complete all immunizations required by the Texas Department of State Health Services (TDSHS)\*. All required workforce courses require a minimum grade of 75% to continue in the program.

\* *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 Coordinator. In such cases, the applicant must sign a declination form. All immunizations must be complete before assignment to clinical training.*

**Health Insurance** - All Health Profession students are required to show proof of health insurance prior to starting clinical rotations each semester.

**CPR** - Requires current American Heart Association Basic Life Support CPR certification.

### AAS – Activity Care Professional

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

<u>BIOL</u>	<u>2404</u>	<u>Human Anatomy and Physiology Basic</u> <sup>1</sup>
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
HPRS	1271	Introduction to the Healthcare System <sup>2</sup>
NURA	1160	Clinical - Nursing Assistant/Aide and Patient Care Assistant/Aide
NURA	1301	Nurse Aide for Health Care

##### **Second Semester**

HITT	1305	Medical Terminology I
HPRS	2301	Pathophysiology
GERS	1301	Introduction to Gerontology
GERS	1304	Activity Directing I
GERS	1160	Clinical - Gerontology

##### **Summer Semester**

HPRS	1310	Introduction to Pharmacology
<u>MATH</u>	<u>1342</u>	<u>Elementary Statistical Methods</u> <sup>3</sup>

#### **SECOND YEAR**

##### **First Semester**

GERS	1307	Activity Directing II
GERS	2160	Clinical - Gerontology
HITT	2328	Introduction to Public Health
HPRS	2232	Health Care Communications
<u>PSYC</u>	<u>2301</u>	<u>General Psychology</u> <sup>4</sup>

##### **Second Semester**

GERS	2161	Clinical - Gerontology
GERS	2333	Legal and Ethical Issues
HPRS	1303	End of Life Issues
HPRS	2321	Medical Law and Ethics for Health Professionals

GEN ED      Humanities/Fine Arts course

#### **Summer Semester**

GERS 2332      Advanced Activity Director (Capstone)

1. May substitute BIOL 1406
2. May substitute HPRS 1204
3. May substitute MATH 1314
4. May substitute ANTH 2302, ANTH 2346, ANTH 2351, HIST 1301, HIST 1302, HIST 2301, SOCI 1301 or SOCI 1306

### Certificate Level 1 – Activity Care Professional

36 credit hours

#### **FIRST YEAR**

##### **First Semester**

HITT	1305	Medical Terminology I
HPRS	1271	Introduction to the Healthcare System <sup>1</sup>
NURA	1160	Clinical - Nursing Assistant/Aide and Patient Care Assistant/Aide
NURA	1301	Nurse Aide for Health Care

##### **Second Semester**

HPRS	2301	Pathophysiology
GERS	1160	Clinical - Gerontology
GERS	1301	Introduction to Gerontology
GERS	1304	Activity Directing I

##### **Summer Semester**

GERS	1307	Activity Directing II
GERS	2160	Clinical - Gerontology
HPRS	1310	Introduction to Pharmacology

#### **SECOND YEAR**

##### **First Semester**

GERS	2161	Clinical - Gerontology
GERS	2333	Legal and Ethical Issues
GERS	2332	Advanced Activity Director (Capstone)
HPRS	1303	End of Life Issues

1. May substitute HPRS 1204

### Certificate Level 1 – Activity Care Professional – Certified Nurse Aide (CNA)

15 credit hours

#### **FIRST YEAR**

##### **First Semester**

HITT	1305	Medical Terminology I
HPRS	1271	Introduction to the Healthcare System <sup>1</sup>
ELECTIVE*		

##### **Second Semester**

NURA	1160	Clinical - Nursing Assistant/Aide and Patient Care Assistant/Aide (Capstone)
NURA	1301	Nurse Aide for Health Care

## ELECTIVE\*

\*Electives (6 credit hours): HITT 2328, HPRS 1303, HPRS 1310, HPRS 2301, HPRS 2321

1. May substitute HPRS 1204

### Occupational Skills Award (OSA) – Activity Care Professional – Certified Nurse Aide (CNA)

9 credit hours

#### FIRST YEAR

##### First Semester

HITT	1305	Medical Terminology I
HPRS	1271	Introduction to the Healthcare System <sup>1</sup>
NURA	1160	Clinical - Nursing Assistant/Aide and Patient Care Assistant/Aide (Capstone)
NURA	1301	Nurse Aide for Health Care

1. May substitute HPRS 1204

#### ANIMATION & GAME ART

Also see [Video Production](#) workforce program.

#### Program Options:

##### AAS – Animation & Game Art

##### Certificate Level 1 – Animation & Game Art

##### Certificate Level 3 – ESC – Advanced Animation & Game Art Production

Design a career that you will love as a 3-D animator or game artist. Collin College's 3-D Animation track provides you with the tools and training you need to take a project from concept to reality, while encouraging your creativity. Learn how to execute 3-D animation and still imagery for advertising, industrial visualization, entertainment and corporate communication in an environment designed to emphasize creative concepts.

The college's Game Art track focuses on 2-D and 3-D art and animation skills for gaming. Learn level design and high-end 3-D graphics integration in a group project environment.

Learn from professors who know the industry firsthand. Collin College's Communication Design Department is staffed by full-time faculty with up-to-date industry experience and associate professors who still work in their field.

#### AAS – Animation & Game Art

60 credit hours

#### FIRST YEAR

##### First Semester

ARTC	1305	Basic Graphic Design
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ARTC	1325	Introduction to Computer Graphics
ARTV	1345	3-D Modeling and Rendering I
ARTV	1371	Storyboard and Concept Development
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
FLMC	1301	History of Animation Techniques

#### Second Semester

ARTC	1302	Digital Imaging I
ARTV	1341	3-D Animation I
FLMC	1331	Video Graphics and Visual Effects I
GAME	1303	Introduction to Game Design and Development
ARTV	1303	Basic Animation

#### SECOND YEAR

##### First Semester

ARTV	2345	3-D Modeling and Rendering II
ARTV	2351	3-D Animation II
<u>GEN ED</u>		<a href="#">Humanities/Fine Arts</a> course
<u>GEN ED</u>		<a href="#">Mathematics/Natural Sciences</a> course
ARTV	1351	Digital Video
or		
GAME	2359	Game and Simulation Group Project

#### Second Semester

ARTV	2335	Portfolio Development for Animation (Capstone)
GAME	2325	3-D Animation II – Character Set-Up
<u>GEN ED</u>		<a href="#">Social/Behavioral Sciences</a> course
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u> (See <a href="#">Speech</a> Options)

#### Certificate Level 1 – Animation & Game Art

42 credit hours

#### FIRST YEAR

##### First Semester

ARTC	1325	Introduction to Computer Graphics
ARTV	1345	3-D Modeling and Rendering I
ARTV	1371	Storyboard and Concept Development
FLMC	1301	History of Animation Techniques

#### Second Semester

ARTC	1302	Digital Imaging I
ARTV	1303	Basic Animation
ARTV	1341	3-D Animation I
FLMC	1331	Video Graphics and Visual Effects I
GAME	1303	Introduction to Game Design and Development

#### SECOND YEAR

##### First Semester

ARTV	2345	3-D Modeling and Rendering II
ARTV	2351	3-D Animation II



ARTV 1351 Digital Video  
or  
GAME 2359 Game and Simulation Group Project

### Second Semester

ARTV 2335 Portfolio Development for Animation (Capstone)  
GAME 2325 3-D Animation II – Character Set-Up

### Certificate Level 3 – ESC – Advanced Animation & Game Art Production<sup>1</sup>

12 credit hours

ARTV 2371 Advanced Skill Development for Animation and Games  
FLMC 2331 Video Graphics and Visual Effects II  
ELECTIVE \*  
ELECTIVE \*

\* *Elective (6 credit hours): ARTC 2305, FLMC 1380, GAME 2309, GAME 2336, GAME 2341, GAME 2386, MUSC 1327*

1. *Prior to being admitted into this award, the student must have earned an AAS in Animation & Game Art, Communication Design, or Video Production. Please contact the Associate Dean for additional information.*

### AUTOMOTIVE TECHNOLOGY

#### Program Options:

#### AAS – Automotive Technology

#### Certificate Level 1 - Automotive Performance Specialist

#### Certificate Level 1 - Brake and Front-end Specialist

#### Certificate Level 2 - Automotive Technology

The Automotive Technology program is designed to prepare students for high-skill, high-demand positions in the automotive industry. Completers will have opportunities in dealerships; large tire, lube and repair chains; as well as independent shops. In addition to earning stackable certificates, marketable skills, and AAS degrees, completers will be prepared to earn industry recognized ASE certifications qualifying them for Maintenance and Light Repair (MLR) or Automotive Service Technician (AST) designation.

### AAS – Automotive Technology

60 credit hours

#### FIRST YEAR

##### First Semester

AUMT 1305 Introduction to Automotive Technology  
AUMT 1307 Automotive Electrical Systems  
AUMT 1316 Automotive Suspension and Steering Systems

ENGL 1301 Composition I

#### Second Semester

AUMT 1419 Automotive Engine Repair  
AUMT 1410 Automotive Brake Systems  
AUMT 2421 Automotive Electrical Diagnosis and Repair

GEN ED Humanities/Fine Arts course<sup>1</sup>

#### Summer Semester

AUMT 1266 Practicum 1 - Automotive Mechanics Technology

### SECOND YEAR

#### First Semester

AUMT 2313 Automotive Drive Train and Axles  
AUMT 1345 Automotive Climate Control Systems  
AUMT 2317 Automotive Engine Performance Analysis I

GEN ED Mathematics course<sup>2</sup>

#### Second Semester

AUMT 2425 Automotive Automatic Transmission and Transaxle  
AUMT 2337 Automotive Electronics  
AUMT 2434 Automotive Engine Performance Analysis II

ECON 1301 Introduction to Economics  
SPCH 1321 Business and Professional Communication

#### Summer Semester

AUMT 2266 Practicum 2 - Automotive Mechanics Technology (Capstone)

1. *ARTS 1301 or HUMA 1301*

2. *MATH 1314 or MATH 1324*

### Certificate Level 1 - Automotive Performance Specialist

18 credit hours

#### FIRST YEAR

##### First Semester

AUMT 1305 Introduction to Automotive Technology  
AUMT 1307 Automotive Electrical Systems  
AUMT 2317 Automotive Engine Performance Analysis I

#### Second Semester

AUMT 2434 Automotive Engine Performance Analysis II  
AUMT 2337 Automotive Electronics  
AUMT 2266 Practicum 2 - Automotive Mechanics Technology (Capstone)



### Certificate Level 1 - Brake and Front-end Specialist

18 credit hours

#### **FIRST YEAR**

##### **First Semester**

AUMT 1305	Introduction to Automotive Technology
AUMT 1307	Automotive Electrical Systems
AUMT 1410	Automotive Brake Systems

##### **Second Semester**

AUMT 1266	Practicum 1 - Automotive Mechanics Technology (Capstone)
AUMT 1316	Automotive Suspension and Steering Systems
AUMT 2317	Automotive Engine Performance Analysis I

### Certificate Level 2 - Automotive Technology

32 credit hours

*Students must be TSI complete.*

#### **FIRST YEAR**

##### **First Semester**

AUMT 1305	Introduction to Automotive Technology
AUMT 1307	Automotive Electrical Systems
AUMT 1316	Automotive Suspension and Steering Systems
AUMT 1410	Automotive Brake Systems

##### **Second Semester**

AUMT 1419	Automotive Engine Repair
AUMT 2421	Automotive Electrical Diagnosis and Repair
AUMT 1345	Automotive Climate Control Systems
AUMT 2317	Automotive Engine Performance Analysis I
AUMT 2313	Automotive Drive Train and Axles

##### **Third Semester**

AUMT 1266	Practicum 1 - Automotive Mechanics Technology (Capstone)
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### **BIOMEDICAL EQUIPMENT TECHNOLOGY**

#### **Program Options:**

#### **AAS – Biomedical Equipment Technology**

Collin College's Biomedical Equipment Technology program provides students with the training and experience to ensure today's life-saving medical technology and equipment is in top working order. If you want to be a part of the high growth health care field, but don't want to work directly with patients, consider joining this hands-on opportunity to participate today!

Biomedical Equipment Technicians install, repair and maintain the equipment used in modern hospitals, clinics and medical facilities. The need for these highly-skilled technicians continues to grow and expand as technology becomes inseparable from modern patient care.

### AAS – Biomedical Equipment Technology

60 credit hours

#### **First Semester**

CETT 1407	Fundamentals of Electronics
CETT 1425	Digital Fundamentals
HITT 1305	Medical Terminology I
TECM 1343	Technical Algebra and Trigonometry

#### **Second Semester**

<u>BIOL 2404</u>	<u>Human Anatomy and Physiology Basic</u>
CETT 1409	DC-AC Circuits
BIOM 2201	Safety in Health Care Facilities
BIOM 2311	General Medical Equipment I
<u>ENGL 1301</u>	<u>Composition I</u>

#### **SECOND YEAR**

##### **First Semester**

<u>SPCH 1321</u>	<u>Business and Professional Communication</u>
CPMT 1305	IT Essentials I: PC Hardware and Software
BIOM 2315	Physiological Instruments I
BIOM 2343	General Medical Equipment II
<u>GEN ED</u>	<u>Humanities/Fine Arts</u> course

##### **Second Semester**

<u>ECON 1301</u>	<u>Introduction to Economics</u>
ITNW 1358	Network +
BIOM 2319	Fundamentals of X-Ray and Medical Imaging Systems (Capstone)
BIOM 2331	Biomedical Clinical Instrumentation
BIOM 2337	Respiratory Equipment Maintenance

### **BIOTECHNOLOGY**

#### **Program Options:**

#### **Certificate Level 1 – Biotechnology**

#### **Certificate Level 2 – Advanced Biotechnology**

Learn how to apply the biological sciences toward a career in biological or industrial research with the Biotechnology program at Collin College. Biotechnologists improve crops, help create life-saving medical procedures and search for alternative fuels in addition to hundreds of other scientific endeavors.

If you want to learn how to improve others' lives through biotechnology, Collin College's program is a great way to start. Study biology, biotechnology and genetics in route to a certificate preparing you for a career in biological research or industrial laboratory work.

Are you a returning student? You can also benefit from the new methods and technologies related to agriculture, medicine, pharmaceuticals and other applications.

Planning to transfer to a college or university? Be sure to consult an advisor about which biotechnology coursework is applicable to your intended college path before beginning the program.

### Certificate Level 1 – Biotechnology

15 credit hours

#### **First Semester**

BIOL	1414	Introduction to Biotechnology I
BIOL	1415	Introduction to Biotechnology II
BITC	1340	Quality Assurance for the Biosciences
BITC	2486	Internship – Biology Technician/Biotechnology Laboratory Technician (Capstone) <sup>1</sup>

1. May substitute BIOL 2389 or BITC 2441

### Certificate Level 2 – Advanced Biotechnology

34 credit hours

*Students must be TSI complete.*

#### **First Semester**

BIOL	1406	Biology for Science Majors I
BIOL	1414	Introduction to Biotechnology I
BIOL	1415	Introduction to Biotechnology II
MATH	1314	College Algebra

#### **Summer Semester**

BITC	1340	Quality Assurance for the Biosciences
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#### **Second Semester**

BIOL	2416	Genetics
BITC	2486	Internship – Biology Technician/Biotechnology Laboratory Technician (Capstone) <sup>1</sup>
BITC	2431	Cell Culture Techniques
CHEM	1411	General Chemistry I

1. May substitute BIOL 2389 or BITC 2441

### **BUSINESS MANAGEMENT**

#### **Department Website:**

<http://www.collin.edu/department/business/>

#### **Program Options:**

##### **AAS – Business Management**

- *Business Management Track*
- *Human Resources Management Track*

##### **Certificate Level 1 – Business Management**

##### **Certificate Level 1 – Entrepreneurship**

### **Certificate Level 1 – Human Resources Management**

Make the most out of a career in business with a business management certificate or degree from Collin College. Learn how to work in teams, solve problems, initiate change and relate to your coworkers.

In our Business Management program, you will study basic management philosophies and theories, organizational psychology, as well as business strategy development, implementation and evaluation skills. This degree is also excellent for people who wish to major in another field but need business and management skills. The program also offers a Human Resources concentration and certificate which is built on the Society of Human Resources Management (SHRM) learning outcomes. A certificate or degree in business management will put you in a great position to climb the corporate ladder, no matter the organization.

Plan to transfer to a bachelor's degree program? Transfer agreements allow you to earn an Associate of Applied Science (AAS) degree in Business Management from Collin College and transfer to numerous universities in Texas where Collin College courses may be applied toward Bachelor of Applied Arts and Sciences (BAAS) and Bachelor of Applied Technology (BAT) degrees.

### AAS – Business Management - Business Management Track

60 credit hours

*There are two focus options in this degree – Business Management and Entrepreneurship, you must select ONE focus option and complete the courses in that option.*

#### **FIRST YEAR**

##### **First Semester**

BMGT	1307	Team Building
BMGT	1327	Principles of Management
BMGT	1341	Business Ethics
BMGT	2303	Problem Solving and Decision Making
<u>MATH</u>	<u>1342</u>	<u>Elementary Statistical Methods</u>

(See [Mathematics](#) options)

##### **Second Semester**

BMGT	1305	Communications in Management
BMGT	1344	Negotiations and Conflict Management
BMGT	2309	Leadership
HRPO	2307	Organizational Behavior
MRKG	1311	Principles of Marketing

#### **SECOND YEAR**

##### **First Semester**

BUSG	2309	Small Business Management/Entrepreneurship
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
HRPO	2301	Human Resources Management

SPCH 1321 Business and Professional Communication  
(See [Speech](#) options)

**Select One Focus Option:**

Option 1: Business Management

IBUS 2341 Intercultural Management

Option 2: Entrepreneurship

BUSG 1304 Financial Literacy

**Second Semester**

BMGT 2311 Change Management

ECON 1301 Introduction to Economics<sup>1</sup>

GEN ED Humanities/Fine Arts course

**Select One Focus Option:**

Option 1: Business Management

ACNT 1303 Introduction to Accounting I

BMGT 2341 Strategic Management (Capstone)

Option 2: Entrepreneurship

ACNT 1311 Introduction to Computerized Accounting

BUSG 1371 Business Plan for Funding (Capstone)

*1. May substitute ECON 2301, ECON 2302 or PSYC 2301*

**AAS – Business Management - Human Resources Management Track**

60 credit hours

**FIRST YEAR**

**First Semester**

BMGT 1341 Business Ethics

BMGT 2303 Problem Solving and Decision Making

HRPO 2303 Employment Practices

HRPO 2304 Employee Relations

MATH 1342 Elementary Statistical Methods

(See [Mathematics](#) options)

**Second Semester**

BMGT 1305 Communications in Management

BMGT 1344 Negotiations and Conflict Management

HRPO 2306 Benefits and Compensation

HRPO 2307 Organizational Behavior

MRKG 1311 Principles of Marketing

**SECOND YEAR**

**First Semester**

BUSG 2309 Small Business Management/ Entrepreneurship

ENGL 1301 Composition I

HRPO 2301 Human Resources Management

IBUS 2341 Intercultural Management

SPCH 1321 Business and Professional Communication  
(See [Speech](#) options)

**Second Semester**

ACNT 1303 Introduction to Accounting I<sup>1</sup>

BMGT 2311 Change Management

BMGT 2341 Strategic Management (Capstone)<sup>2</sup>

ECON 1301 Introduction to Economics<sup>3</sup>

GEN ED Humanities/Fine Arts course

*1. May substitute ACCT 2301*

*2. May substitute BMGT 2382 with written approval of the Associate Dean*

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

**Certificate Level 1 – Business Management**

18 credit hours

**First Semester**

BMGT 1307 Team Building

BMGT 1327 Principles of Management

BMGT 1341 Business Ethics

**Second Semester**

BMGT 2303 Problem Solving and Decision Making

BMGT 2309 Leadership

HRPO 2307 Organizational Behavior (Capstone)

**Certificate Level 1 – Entrepreneurship**

18 credit hours

**FIRST YEAR**

**First Semester**

BUSG 2309 Small Business Management/ Entrepreneurship

MRKG 1311 Principles of Marketing

BUSG 1304 Financial Literacy

**Second Semester**

ACNT 1311 Introduction to Computerized Accounting

BUSG 1371 Business Plan for Funding (Capstone) Elective\*

*\*Choose from HRPO 2301, BMGT 2311, BMGT 1305, BMGT 1344*

**Certificate Level 1 – Human Resources Management**

18 credit hours

**FIRST YEAR**

**First Semester**

BMGT 1344 Negotiation and Conflict Management

HRPO 2301 Human Resources Management

HRPO 2304 Employee Relations

**Second Semester**

HRPO	2303	Employment Practices
HRPO	2306	Benefits and Compensation
HRPO	2307	Organizational Behavior (Capstone)

**BUSINESS OFFICE SUPPORT SYSTEMS****Department Website:**

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

**Program Options:**

**AAS – Business Office Support Systems**

**OSA – Accounting Support**

**OSA – Business Office Support Systems**

**Certificate Level 1 – Business Office Support Systems**

**Certificate Level 1 – Medical Office Support**

Learn the skills you need to thrive in an office environment with Collin College's Business Office Support Systems (BOSS) program. BOSS students learn skills like: keyboarding by touch and improved speed and accuracy; workplace document formatting; word processing with Word; proofreading and editing; records and information management; business correspondence and communications; database management using Access; presentation and spreadsheet software using PowerPoint and Excel; office management; and manual and computerized office accounting.

You can apply those skills to careers like receptionist, bookkeeper, office manager, data entry clerk, administrative assistant, medical office assistant and more. Some of the courses required for this Associate of Applied Science (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 College to be applied toward the AAS degree in Business Office Support Systems.

**AAS – Business Office Support Systems**

60 credit hours

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

ACNT	1303	Introduction to Accounting I
POFT	1307	Proofreading and Editing
POFT	1319	Records and Information Management I
POFT	1329	Beginning Keyboarding

**Second Semester**

COSC	1301	Introduction to Computing <sup>1</sup>
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
POFI	2301	Word Processing – MS Word
POFT	2301	Intermediate Keyboarding

**Summer Semester**

<u>HUMA</u>	<u>1301</u>	<u>Introduction to Humanities I</u> (See <a href="#">Humanities/Fine Arts</a> options)
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u> (See <a href="#">Speech</a> options)

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

ACNT	1311	Introduction to Computerized Accounting
ITSC	1309	Integrated Software Applications I – MS Office
POFT	2303	Speed and Accuracy Building Elective*

**Second Semester**

<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> (See <a href="#">Social/Behavioral Sciences</a> options)
ITSW	1304	Introduction to Spreadsheets – Excel
ITSW	1310	Introduction to Presentation Graphics Software <sup>2</sup>
<u>MATH</u>	<u>1332</u>	<u>Contemporary Mathematics</u> <u>(Quantitative Reasoning)</u> <sup>3</sup>

**Summer Semester**

POFT	1349	Administrative Office Procedures II (Capstone)
POFT	2312	Business Correspondence and Communication

\* *Elective (3 credit hours): Any BUSI, ITSC, ITSW, or MRKG course not listed above and that does not require a prerequisite*

1. May substitute BCIS 1305
2. May substitute HITT 1305 or HITT 1353
3. May substitute MATH 1324 or MATH 1314

**OSA – Accounting Support**

12 credit hours

**First Semester**

ACNT	1303	Introduction to Accounting I
ACNT	1311	Introduction to Computerized Accounting
ITSC	1309	Integrated Software Applications I – MS Office
POFT	1329	Beginning Keyboarding

**OSA – Business Office Support Systems**

12 credit hours

ITSC	1309	Integrated Software Applications - MS Office
POFI	2301	Word Processing
POFT	1319	Records and Information Management I
POFT	1329	Beginning Keyboarding

### Certificate Level 1 – Business Office Support Systems

30 credit hours

#### **First Semester**

ACNT	1303	Introduction to Accounting I <sup>1</sup>
POFT	1307	Proofreading and Editing
POFT	1319	Records and Information Management I
POFT	1329	Beginning Keyboarding

#### **Second Semester**

ITSC	1309	Integrated Software Applications I – MS Office
POFI	2301	Word Processing – MS Word
POFT	2301	Intermediate Keyboarding
POFT	2303	Speed and Accuracy Building

#### **Summer Semester**

POFT	1349	Administrative Office Procedures II (Capstone)
POFT	2312	Business Correspondence and Communication

1. May substitute ACNT 1311

### Certificate Level 1 – Medical Office Support

30 credit hours

#### **First Semester**

HITT	1305	Medical Terminology I
POFT	1307	Proofreading and Editing
POFT	1319	Records and Information Management I
POFT	1329	Beginning Keyboarding

#### **Second Semester**

HITT	1353	Legal and Ethical Aspects of Health Information
ITSC	1309	Integrated Software Applications I – MS Office
POFI	2301	Word Processing – MS Word
POFT	2301	Intermediate Keyboarding

#### **Summer Semester**

POFT	1349	Administrative Office Procedures II (Capstone)
POFT	2312	Business Correspondence and Communication

### COLLISION TECHNOLOGY

#### **Program Options:**

AAS – Collision Technology

Certificate Level 1 - Auto Body Metal Technician

Certificate Level 1 - Auto Body Paint Technician

Certificate Level 2 - Auto Body Technology

The Collision Technology program is designed to prepare students for high-skill, high-demand positions in the collision industry. Completers will have opportunities in auto body shops with major dealerships, large collision repair chains as well as independent shops. In addition to earning marketable skills, stackable certificates, and AAS degrees, completers will earn multiple industry recognized I-CAR certifications and prepare for ASE certifications.

### AAS – Collision Technology

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

ABDR	1301	Auto Body Repair and Repainting
ABDR	1331	Basic Refinishing
ABDR	1455	Non-Structural Metal Repair
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>

##### **Second Semester**

ABDR	1349	Automotive Plastic and Sheet Molded Compound Repair
ABDR	1391	Current Trends in Collision Technology
ABDR	2355	Collision Repair Estimating
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

#### **SECOND YEAR**

##### **First Semester**

ABDR	1266	Practicum - Autobody/Collision and Repair Technology/Technician
ABDR	1458	Intermediate Refinishing
ABDR	2437	Structural Analysis and Damage Repair V
ABDR	2447	Advanced Collision Repair Welding
<u>GEN ED</u>		<u>Mathematics/Natural Science</u> course

##### **Second Semester**

ABDR	2402	Auto Body Mechanical and Electrical Service
ABDR	2441	Major Collision Repair and Panel Replacement
ABDR	2449	Advanced Refinishing
<u>GEN ED</u>		<u>Social/Behavioral Sciences</u> course
<u>GEN ED</u>		<u>Speech</u> course

*Note: Completion of this degree gives eligibility for I-CAR certification.*

### Certificate Level 1 - Auto Body Metal Technician

21 credit hours

#### **FIRST YEAR**

##### **First Semester**

ABDR	1301	Auto Body Repair and Repainting
ABDR	1455	Non-Structural Metal Repair
ABDR	2447	Advanced Collision Repair Welding



**Second Semester**

ABDR	2437	Structural Analysis and Damage Repair V
ABDR	2441	Major Collision Repair and Panel Replacement
ABDR	1266	Practicum – Autobody/Collision and Repair Technology/Technician

*Note: Completion of this certificate gives eligibility for I-CAR certification.*

**Certificate Level 1 - Auto Body Paint Technician**

23 credit hours

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

ABDR	1301	Auto Body Repair and Repainting
ABDR	1331	Basic Refinishing
ABDR	1458	Intermediate Refinishing

**Second Semester**

ABDR	1455	Non-Structural Metal Repair
ABDR	2449	Advanced Refinishing
ABDR	1391	Current Trends in Collision Technology

**Third Semester**

ABDR	1266	Practicum - Autobody/Collision and Repair Technology/Technician
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*Note: Completion of this certificate gives eligibility for I-CAR certification.*

**Certificate Level 2 - Auto Body Technology**

44 credit hours

*Students must be TSI complete.*

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

ABDR	1301	Auto Body Repair and Repainting
ABDR	1331	Basic Refinishing
ABDR	1455	Non-Structural Metal Repair
ENGL	1301	<u>Composition I</u>

**Second Semester**

ABDR	1391	Current Trends in Collision Technology
ABDR	1458	Intermediate Refinishing
ABDR	2355	Collision Repair Estimating

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

ABDR	2437	Structural Analysis and Damage Repair V
ABDR	2441	Major Collision Repair and Panel Replacement
ABDR	2447	Advanced Collision Repair Welding

**Second Semester**

ABDR	1266	Practicum - Autobody/Collision and Repair Technology/Technician
ABDR	2449	Advanced Refinishing
GEN ED		<u>Mathematics/Natural Sciences</u> course

*Note: Completion of this certificate gives eligibility for I-CAR certification.*

**COMMUNICATION DESIGN****Department Website:**

<http://www.collin.edu/departments/communicationdesign/index.html>

**Program Options:****AAS – Communication Design****Certificate Level 1 – Communication Design****Certificate Level 1 – User Experience Design Foundations****Certificate Level 3 – ESC – Advanced Design****Certificate Level 3 – ESC – Advanced Design Illustration****Certificate Level 3 – ESC – Motion Graphics**

Graphic design is an indispensable component of the way our world communicates and does business—from traditional marketing and promotional materials, to phone apps and smart device interfaces, to package design and promotional material, to full scale brand identity design and advertising campaigns. As a graphic designer, you will apply your artistic skills and knowledge as you shape visual messages to engage and communicate effectively with the intended audiences, helping the world communicate visually.

Collin College's Graphic Design Program prepares you to enter the expanding world of visual communication as you learn the essential design and art direction concepts and processes that will allow you to meet your individual career needs. The program emphasizes strong concept development and production techniques, while exploring applications including logo design and brand identity, collateral design, advertising, packaging, promotion, Web development, and interface design.

Students planning to transfer to a college or university should check with a Collin College Career Coach or program Discipline Lead prior to beginning this program.

**AAS – Communication Design**

60 credit hours

*There are two focus options in this degree – Design and User Experience, you must select ONE focus option and complete the courses in that option.*

**FIRST YEAR**



**First Semester**

ARTC	1305	Basic Graphic Design
ARTC	1325	Introduction to Computer Graphics
ARTS	1316	Drawing I
ARTC	2311	History of Communication Graphics
<u>GEN ED</u>		<a href="#">Mathematics/Natural Sciences</a> course

**Second Semester**

ARTC	1302	Digital Imaging I
ARTC	1327	Typography
ARTC	1353	Computer Illustration I
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>

**Select One Focus Option**

Option 1: Design

ARTC	1317	Design Communication I
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Option 2: User Experience

ARTC	2371	User Experience I
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**Third Semester**

ARTV	1371	Storyboard and Concept Development
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u> (See <a href="#">Speech</a> options)

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

IMED	1316	Web Design I
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**Select One Focus Option:**

Option 1: Design

ARTC	1313	Digital Publishing I
ARTC	1349	Art Direction I
ARTC	2347	Design Communication II

Option 2: User Experience

ARTC	1359	Visual Design for New Media
UXUI	1370	Human Factors and Design Psychology
UXUI	1371	Prototyping and Usability Testing I

**Second Semester**

<u>ARTS</u>	<u>1301</u>	<u>Art Appreciation</u> (See <a href="#">Humanities/Fine Arts</a> options)
ARTC	2335	Portfolio Development for Graphic Design (Capstone)
<u>GEN ED</u>		<a href="#">Social/Behavioral Sciences</a> course
FLMC	1331	Video Graphics and Visual Effects I

**Certificate Level 1 – Communication Design**

42 credit hours

*There are two focus options in this certificate – Design and User Experience. You must select ONE focus and complete the courses in that option.*

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

ARTC	1305	Basic Graphic Design
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ARTC	1325	Introduction to Computer Graphics
ARTS	1316	Drawing I
ARTC	2311	History of Communication Graphics

**Second Semester**

ARTC	1302	Digital Imaging I
ARTC	1327	Typography
ARTC	1353	Computer Illustration I

**Select One Focus Option:**

Option 1: Design

ARTC	1317	Design Communication I
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Option 2: User Experience

ARTC	2371	User Experience I
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**Third Semester**

ARTV	1371	Storyboard and Concept Development
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**SECOND YEAR****First Semester**

IMED	1316	Web Design I
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**Select One Focus Option****Option 1: Design**

ARTC	1313	Digital Publishing I
ARTC	1349	Art Direction I
ARTC	2347	Design Communication II

**Option 2: User Experience Design**

ARTC	1359	Visual Design for New Media
UXUI	1370	Human Factors and Design Psychology
UXUI	1371	Prototyping and Usability Testing I

**Second Semester**

ARTC	2335	Portfolio Development for Graphic Design (Capstone)
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**Certificate Level 1 – User Experience Design****Foundations**

24 credit hours

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

ARTC	1305	Basic Graphic Design
ARTC	1325	Introduction to Computer Graphics
ARTV	1371	Storyboard and Concept Development
ARTC	2371	User Experience I

**Second Semester**

ARTC	1359	Visual Design for New Media
UXUI	1370	Human Factors and Design Psychology
UXUI	1371	Prototyping and Usability Testing I
ARTC	2335	Portfolio Development for Graphic Design (Capstone)

**Certificate Level 3 – ESC – Advanced Design**<sup>1</sup>

9 credit hours

ARTC	2349	Art Direction II
ARTC	1392	Special Topics in Design and Visual Communication

ELECTIVE \*

\**Elective (3 credit hours): ARTC 2305, ARTC 2340, or ARTC 2381*

1. *Prior to being admitted into any of these awards, the student must have earned an AAS in Communication Design, Animation, or Digital Video. Please contact the Associate Dean for additional information.*

**Certificate Level 3 – ESC – Advanced Design****Illustration**<sup>1</sup>

9 credit hours

ARTC	2305	Digital Imaging II
ARTC	2340	Computer Illustration II

ELECTIVE \*

\* *Elective (3 credit hours): ARTS 1317, ARTS 2323, ARTS 2348, or ARTC 2381*

1. *Prior to being admitted into any of these awards, the student must have earned an AAS in Communication Design, Animation, or Digital Video. Please contact the Associate Dean for additional information.*

**Certificate Level 3 – ESC – Motion Graphics**<sup>1</sup>

9 credit hours

*Select only three courses.*

ARTV	1345	3-D Modeling and Rendering I
ARTV	1351	Digital Video
FLMC	2331	Video Graphics and Visual Effects II
ARTC	2381	Cooperative Education Commercial and Advertising Art

1. *Prior to being admitted into any of these awards, the student must have earned an AAS in Communication Design, Animation, or Digital Video. Please contact the Associate Dean for additional information.*

**COMPUTER-AIDED DRAFTING AND DESIGN****Program Options:****AAS – Computer-Aided Drafting and Design****OSA – AutoCAD****Certificate Level 1 – Computer-Aided Drafting and Design****Certificate Level 1 – Advanced Computer-Aided Drafting and Design**

High-tech industries are constantly creating new career opportunities in exciting, highly-specialized fields. A degree in Computer-Aided Drafting and Design (CADD) can provide you with both an educational foundation in computer-aided design and insight into current industry practices.

Get hands-on training in Collin College's intensive CADD program. Learn the skills a designer, CADD operator, architect or engineer needs for a successful career.

Students planning to transfer to a college or university should check with the Collin College academic advisor. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

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

60 credit hours

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

CNBT	1311	Construction Materials and Methods I
DFTG	1309	Basic Computer-Aided Drafting
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>MATH</u>	<u>1314</u>	<u>College Algebra</u> (See <a href="#">Mathematics/Natural Sciences</a> options)
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> options)

**Second Semester**

CNBT	1300	Residential and Light Commercial Construction Drawings
DFTG	1372	SOLIDWORKS Essentials
DFTG	2319	Intermediate Computer-Aided Drafting
DFTG	2328	Architectural Drafting - Commercial
<u>GEN ED</u>		<u><a href="#">Social/Behavioral Sciences</a></u> course

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

DFTG	1317	Architectural Drafting - Residential
DFTG	1333	Mechanical Drafting
DFTG	2350	Geometric Dimensioning and Tolerancing
DFTG	2373	Advanced SOLIDWORKS
<u>GEN ED</u>		<u><a href="#">Humanities/Fine Arts</a></u> course

**Second Semester**

ARCE	2352	Mechanical, Electrical, and Plumbing (MEP) Systems
BMGT	1305	Communications in Management
DFTG	1330	Civil Drafting I
DFTG	2332	Advanced Computer-Aided Drafting

DFTG 2381 Cooperative Education - Drafting and Design Technology/Technician, General <sup>1</sup>

1. May substitute DFTG 2338

### OSA – AutoCAD

9 credit hours

This program prepares students to design and draft in 2 dimensions and 3 dimensions. Also, students will be taught how to customize AutoCAD to enhance productivity.

Prerequisite: Basic computer skills. Having working knowledge of geometry will be a plus for students.

#### **FIRST YEAR**

##### **First Semester**

CNBT 1311 Construction Materials and Methods I  
DFTG 1309 Basic Computer-Aided Drafting

##### **Second Semester**

DFTG 2319 Intermediate Computer-Aided Drafting

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

### Certificate Level 1 – Computer-Aided Drafting and Design

18 credit hours

#### **FIRST YEAR**

##### **First Semester**

CNBT 1311 Construction Materials and Methods I  
DFTG 1309 Basic Computer-Aided Drafting  
DFTG 2328 Architectural Drafting – Commercial

##### **Second Semester**

DFGT 1317 Architectural Drafting-Residential  
DFTG 1372 SOLIDWORKS Essentials  
DFTG 2319 Intermediate Computer-Aided Drafting

*Note: Upon successful completion of this certificate, students are eligible to take the Autodesk certification exams.*

### Certificate Level 1 – Advanced Computer-Aided Drafting and Design

24 credit hours

#### **FIRST YEAR**

##### **First Semester**

CNBT 1311 Construction Materials and Methods I  
DFTG 1309 Basic Computer-Aided Drafting

##### **Second Semester**

DFTG 1372 SOLIDWORKS Essentials  
DFTG 2319 Intermediate Computer-Aided Drafting  
DFTG 2328 Architectural Drafting – Commercial

#### **SECOND YEAR**

##### **First Semester**

DFTG 1317 Architectural Drafting – Residential  
DFTG 2373 Advanced SOLIDWORKS

##### **Second Semester**

DFTG 2350 Geometric Dimensioning and Tolerancing (Capstone) <sup>1</sup>

1. May substitute DFTG 2381

### COMPUTER NETWORKING

#### **Program Options:**

##### **AAS – Computer Networking**

- *Integrated Networking Technologies Track*
- *Infrastructure Track (Routing and Switching)*
- *Systems Track*
- *Wireless Track*

##### **Occupational Skills Award (OSA) – Entry-Level Network Support (Shared by all tracks)**

#### Integrated Networking Technologies Track

**Certificate Level 1 – Integrated Networking Cloud Technician**

**Certificate Level 1 – Integrated Networking Virtualization and Storage Technician**

**Certificate Level 2 – Integrated Networking Administrator**

**Certificate Level 3 – ESC – Networking Systems Professional (CCNP)**

*(Shared by Integrated Networking Technologies and Systems Tracks)*

#### Infrastructure Track

**Certificate Level 1 – Infrastructure Technician (CCNA)**

**Certificate Level 1 – Wireless Infrastructure Technician**

**Certificate Level 2 – Infrastructure Administrator**

#### Systems Track

**Certificate Level 1 – Systems Software Technician**

**Certificate Level 1 – Systems Technician**

**Certificate Level 2 – Systems Administrator**

**Certificate Level 3 – ESC – Networking Systems Professional (CCNP)**

*(Shared by Integrated Networking Technologies and Systems Tracks)*

#### Wireless Track

**Certificate Level 1 – Aruba**

**Certificate Level 1 – Computer Wireless Network**

Digital communication is one of the backbones of modern society. You can be one of the professionals who makes

sure information is accessible and secure with a degree or certificate in computer networking from Collin College.

Collin College's computer networking program prepares graduates 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 will prepare you for a variety of Cisco, Microsoft and CompTIA certification examinations.

The computer networking program offers four study tracks: infrastructure, systems, integrated networking technologies, and wireless.

The Computer Networking – Infrastructure track prepares graduates to design and install secure network systems with a focus on managing network devices. Courses and hands-on labs in this track specifically prepare students for the Cisco Certified Network Associate (CCNA) the Cisco Certified Network Professional (CCNP) professional certification exams.

The Computer Networking – Systems track prepares graduates to design and secure network systems with a focus on managing servers. Courses and hands-on labs in this track prepare students for the Microsoft Certified Solutions Associate – Server 2016, and the Cisco Certified Entry-level Technician (CCENT).

The Computer Networking – Integrated Networking Technologies track prepares graduates to design and secure network systems with a focus on cloud computing, storage and virtualization networking technologies. Courses and hands-on labs in this track prepare students for the broad spectrum of networking technologies and help ready them for the Cisco Certified Entry-level Technician (CCENT), as well as Information Storage Management (EMC), and VmWare vSphere certification among others.

The Computer Networking – Wireless track will prepare you to design and administer wireless networks. These skills with WLAN and IoT are highly needed in the industry. Courses and hands-on labs in this track prepare students for essential certifications.

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

### **AAS – Computer Networking – Integrated Networking Technologies Track** 60 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

### **FIRST YEAR**

#### **First Semester**

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITCC	1314	CCNA 1: Introduction to Networks
ITNW	1309	Fundamentals Cloud Computing
<u>GEN ED</u>		<u>Mathematics</u> course

#### **Second Semester**

ITNW	1351	Fundamentals of Wireless LANS
ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITCC	2320	CCNA 3: Enterprise Networking, Security, and Automation
ITSC	1316	Linux Installation and Configuration
ITSY	1300	Fundamentals of Information Security (Security +)

### **SECOND YEAR**

#### **First Semester**

ITSY	2300	Operating System Security
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <u>Speech</u> Options)
ITMT	1373	Networking with Windows Server 2016

#### **Second Semester**

ITNW	2373	Information Storage Management (EMC)
ITNW	2375	VmWare vSphere: Installation, Configuration and Management (Capstone)
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> Course
<u>GEN ED</u>		<u>Social/Behavioral Sciences</u> Course
ELECTIVE*		

*\* Electives (3 credit hours)*

*ITSE 1359, ITNW 1364 or any ITCC, ITMT, ITNW, or ITSY course not listed above.*

Note: ITCC 2320 (CCNA 3) – or the CCNA certification – is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

### **AAS – Computer Networking – Infrastructure Track (Routing and Switching)** 60 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

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

CPMT	1305	IT Essentials I: PC Hardware and Software
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
ITNW	1358	Network+
ITCC	1314	CCNA 1: Introduction to Networks
<u>GEN ED</u>		<u>Mathematics</u> course

**Second Semester**

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITCC	2320	CCNA 3: Enterprise Networking, Security, and Automation
ITNW	1351	Fundamentals of Wireless LANS
ITNW	2375	VMware vSphere: Installation, Configuration and Management
ITSE	1359	Introduction to Scripting Languages – Python

**Summer Semester**

<u>GEN ED</u>		<u>Social/Behavioral Sciences</u> Course
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> Course

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

ITCC	2377	Implementing Enterprise Network Core Technologies
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITSY	2300	Operating Systems Security
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> Options)
ELECTIVE*		

**Second Semester**

ITCC	2379	Implementing Enterprise Advanced Routing and Services (Capstone)
ITMT	1373	Networking with Windows Server 2016
ITNW	1309	Fundamentals Cloud Computing

*\* Elective (3 credit hours)*

*ITMT 1371, ITNW 1364 or any ITCC, ITMT, ITNW, or ITSY course not listed above.*

Note: ITCC 2320 (CCNA 3) -- or the CCNA certification- is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

### AAS – Computer Networking – Systems Track

60 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

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

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITMT	1371	Configuring and Supporting Microsoft Windows 10 (MD-100)
ITCC	1314	CCNA 1: Introduction to Networks
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> Course

**Second Semester**

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITMT	1373	Networking with Windows Server 2016
ITMT	1374	Identity with Windows Server 2016
ITSY	1300	Fundamentals of Information Security (Security +)

**Summer Semester**

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>GEN ED</u>		<u>Social/Behavioral Sciences</u> course

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

ITSC	1316	Linux Installation and Configuration
ITSE	1359	Introduction to Scripting Languages – Python
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> Options)
<u>GEN ED</u>		<u>Mathematics</u> course

**Second Semester**

ITNW	2373	Information Storage Management (EMC)
ITNW	2375	VMware vSphere: Installation, Configuration, and Management (Capstone)
ITSY	2300	Operating System Security
ELECTIVE *		

*\*Elective (3 credit hours):*

*ITCC 2320, ITNW 1351, ITNW 1364 or any ITCC, ITMT, ITNW, or ITSY course not listed above.*

Note: ITCC 2320 (CCNA 3) – or the CCNA certification – is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

### AAS – Computer Networking – Wireless Track

60 Credit Hours

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

**FIRST YEAR**



**First Semester**

CPMT	1305	IT Essentials I: PC Hardware and Software
ITCC	1314	CCNA 1: Introduction to Networks
ITNW	1351	Fundamentals of Wireless LANs
ITNW	1358	Network+
ITNW	1371	Aruba Switching Fundamentals for Mobility

**Second Semester**

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>GEN ED</u>		<u>Mathematics</u> course
ITNW	1378	Wireless Network Administration
ITNW	2379	Implementing Aruba Campus Switching Solutions
ITNW	1372	Implementing Aruba Wireless

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

ENGL	2311	Technical and Business Writing
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication<sup>1</sup></u>
ITNW	2371	Wireless Network Security
ITSE	1359	Introduction to Scripting Languages - Python
ITNW	2377	Aruba Scale-able WLAN Design and Implementation

**Second Semester**

ITNW	2372	Wireless Network Design
ITNW	2374	Emerging Wireless Technology (Capstone)
ITNW	2378	Fundamentals of IoT
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> Course
<u>GEN ED</u>		<u>Social/Behavioral Sciences</u> Course

1. May substitute SPCH 1311 or SPCH 1315

**OSA – Entry-Level Network Support**

9 credit hours

*Shared by all tracks*

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITSY	1300	Fundamentals of Information Security (Security+)

**Integrated Networking Technologies Track****Certificate Level 1 – Integrated Networking Technologies Track – Integrated Networking Cloud Technician**

21 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

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

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITCC	1314	CCNA 1: Introduction to Networks
ITNW	1351	Fundamentals of Wireless LANs

**Second Semester**

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITSY	2300	Operating System Security (Capstone)
ITNW	1309	Fundamentals Cloud Computing

**Certificate Level 1 – Integrated Networking Technologies Track – Integrated Networking Virtualization and Storage Technician**

18 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

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

ITNW	1358	Network+
ITNW	1309	Fundamentals Cloud Computing
ITMT	1372	Installation, Storage and Computing with Windows Server 2016

**Second Semester**

ITMT	1373	Networking with Windows Server 2016
ITNW	2373	Information Storage Management (EMC)
ITNW	2375	VmWare vSphere: Installation, Configuration and Management (Capstone)

**Certificate Level 2 – Integrated Networking Technologies Track – Integrated Networking Administrator**

45 Credit Hours

*Students must be TSI complete.*

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.



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

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITCC	1314	CCNA 1: Introduction to Networks
ITNW	1309	Fundamentals Cloud Computing

**Second Semester**

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITSY	2300	Operating System Security
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITCC	2320	CCNA 3: Enterprise Networking, Security, and Automation

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

ITNW	1351	Fundamentals of Wireless LANS
ITSC	1316	Linux Installation and Configuration
ITMT	1373	Networking with Windows Server 2016
ITSY	1300	Fundamentals of Information Security (Security +)

**Second Semester**

ITNW	2373	Information Storage Management (EMC)
ITNW	2375	VMware vSphere: Installation, Configuration and Management (Capstone)

## ELECTIVE\*

\* Elective (3 credit hours):

ITSE 1359, or any ITCC, ITMT, ITNW, or ITSY course not listed above.

Note: ITCC 2320 (CCNA 3) – or the CCNA certification – is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

**Certificate Level 3 – ESC – Networking Systems Professional (CCNP)**

*Shared by Integrated Networking Technologies Track and Systems Track*

6 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

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

ITCC	2377	Implementing Enterprise Network Core Technologies
ITCC	2379	Implementing Enterprise Advanced Routing and Services

Note: ITCC 2320 (CCNA 3) – or the CCNA certification – is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

**Infrastructure Track****Certificate Level 1 – Infrastructure Track – Infrastructure Technician (CCNA)**

18 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

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

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITCC	1314	CCNA 1: Introduction to Networks

**Second Semester**

ITSE	1359	Introduction to Scripting Languages – Python
ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITCC	2320	CCNA 3: Enterprise Networking, Security, and Automation (Capstone)

**Certificate Level 1 – Infrastructure Track – Wireless Infrastructure Technician**

21 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSY courses are offered in eight-week express sessions.

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

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITCC	1314	CCNA 1: Introduction to Networks
ITMT	1371	Configuring and Supporting Microsoft Windows 10 (MD-100)

**Second Semester**

ITNW	1351	Fundamentals of Wireless LANS
ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITSY	2300	Operating System Security (Capstone)

**Certificate Level 2 – Infrastructure Track – Infrastructure Administrator**

45 Credit Hours

*Students must be TSI complete.*

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

### **FIRST YEAR**

#### **First Semester**

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITCC	1314	CCNA 1: Introduction to Networks
ITNW	1351	Fundamentals of Wireless LANS

#### **Second Semester**

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITCC	2320	CCNA 3: Enterprise Networking, Security, and Automation
ITNW	1309	Fundamentals Cloud Computing
ITSE	1359	Introduction to Scripting Languages – Python

### **SECOND YEAR**

#### **First Semester**

ITCC	2377	Implementing Enterprise Network Core Technologies
ITCC	2379	Implementing Enterprise Advanced Routing and Services
ITMT	1372	Installation, Storage and Computing with Windows Server 2016

#### **Second Semester**

ITMT	1373	Networking with Windows Server 2016
ITNW	2375	VMware vSphere: Installation, Configuration and Management
ITSY	2300	Operating Systems Security (Capstone)
ELECTIVE*		

\* *Elective (3 credit hours):*

*ITMT 1371, or any ITCC, ITMT, ITNW, or ITSY course not listed in the degree plan.*

Note: ITCC 2320 (CCNA 3) -- or the CCNA certification - is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

### **Systems Track**

#### **Certificate Level 1 – Systems Track – Systems Software Technician**

24 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

### **FIRST YEAR**

#### **First Semester**

CPMT	1305	IT Essentials I: PC Hardware and Software
ITCC	1314	CCNA 1: Introduction to Networks
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITNW	1358	Network+

#### **Second Semester**

ITMT	1373	Networking with Windows Server 2016
ITMT	1374	Identity with Windows Server 2016 (Capstone)
ITSE	1359	Introduction to Scripting Languages – Python
ITSY	1300	Fundamentals of Information Security (Security +)

#### **Certificate Level 1 – Systems Track – Systems Technician**

27 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

### **FIRST YEAR**

#### **First Semester**

CPMT	1305	IT Essentials I: PC Hardware and Software
ITCC	1314	CCNA 1: Introduction to Networks
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITNW	1358	Network+
ITSE	1359	Introduction to Scripting Languages – Python

#### **Second Semester**

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITMT	1373	Networking with Windows Server 2016
ITMT	1374	Identity with Windows Server 2016 (Capstone)
ITSY	1300	Fundamentals of Information Security (Security +)

#### **Certificate Level 2 – Systems Track – Systems Administrator**

45 Credit Hours

*Students must be TSI complete.*

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

### **FIRST YEAR**

**First Semester**

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITCC	1314	CCNA 1: Introduction to Networks

**Second Semester**

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITMT	1373	Networking with Windows Server 2016
ITSE	1359	Introduction to Scripting Languages – Python
ITSY	1300	Fundamentals of Information Security (Security +)

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

ITMT	1371	Configuring and Supporting Microsoft Windows 10 (MD-100)
ITMT	1374	Identity with Windows Server 2016
ITSC	1316	Linux Installation and Configuration

**Second Semester**

ITNW	2373	Information Storage Management (EMC)
ITNW	2375	VMware vSphere: Installation, Configuration, and Management (Capstone)
ITSY	2300	Operating System Security
ELECTIVE	*	

\* *Elective (3 credit hours): ITCC 2320, ITNW 1351, or any ITCC, ITMT, ITNW, or ITSY course not listed above.*

Note: ITCC 2320 (CCNA 3) – or the CCNA certification – is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

**Certificate Level 3 – ESC – Networking Systems Professional (CCNP)**

*Shared by Integrated Networking Technologies Track and Systems Track*

6 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

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

ITCC	2377	Implementing Enterprise Network Core Technologies
ITCC	2379	Implementing Enterprise Advanced Routing and Services

Note: ITCC 2320 (CCNA 3) – or the CCNA certification – is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

**Wireless Track****Certificate Level 1 – Wireless Track – Aruba**

18 Credit Hours

Many ITNW courses are offered in eight-week express sessions.

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

ITNW	1351	Fundamentals of Wireless LANs
ITNW	1358	Network+

**Second Semester**

ITNW	1371	Aruba Switching Fundamentals for Mobility
ITNW	1372	Implementing Aruba Wireless

**Third Semester**

ITNW	2374	Emerging Wireless Technology (Capstone)
ITNW	2377	Aruba Scale-able WLAN Design and Implementation

**Certificate Level 1 – Wireless Track – Computer Wireless Network**

18 Credit Hours

Many ITNW courses are offered in eight-week express sessions.

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

ITNW	1351	Fundamentals of Wireless LANs
ITNW	1358	Network+

**Second Semester**

ITNW	1378	Wireless Network Administration
ITNW	2371	Wireless Network Security

**Third Semester**

ITNW	2372	Wireless Network Design
ITNW	2374	Emerging Wireless Technology (Capstone)

**COMPUTER SYSTEMS****Program Options:****AAS – Computer Systems**

- *Computer Support Track*
- *Information System Track*
- *Database Development Track*

**OSA – Computer Applications**

**OSA – Help Desk Support**  
**Certificate Level 1 – Computer Support**  
**Certificate Level 2 – Computer Applications for Data Forensics and Informatics**  
**Certificate Level 2 – Information System**  
**Certificate Level 2 – Database Development**

Learn to design and develop information systems for the ever-growing world of computers with a degree or certificate in computer systems.

The rapid spread of computers and information technology has created a need for highly-trained workers to work in applications, support and/or database development. With Collin College's Computer Systems program, you will learn to design and build computer systems, and to solve problems in this ever-changing and growing field.

The degree program offers tracks in information systems, computer support 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.

Computer support specialists troubleshoot and resolve various computer and software issues. They may work in a help-desk environment or provide technical support in an organization's IT department. Professionals might work in a variety of fields, including computer systems, telecommunications, finance, and educational services. Some professionals may be able to work from home, while others travel to clients' homes to provide computer support.

Information Systems technicians troubleshoot computer systems and develop safeguards to prevent future problems. These experts design and repair an organization's computer networks and systems. Coursework in programming, computer concepts and application, and systems analysis and design prepares you for entry-level positions in Information Technology.

Database administration technology prepares graduates to plan, design and run computer database systems for a variety of organizations. This 2-year degree program or technical certificate includes courses in database fundamentals, database programming and database management software.

Students planning to transfer to a college or university should check with Collin College academic advisors or career coaches. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

**AAS – Computer Systems – Computer Support Track**

60 credit hours

**FIRST YEAR**

**First Semester**

BCIS 1305 Business Computer Applications

ECON 1301 Introduction to Economics

(See [Social/Behavioral Sciences](#)

Options)

ENGL 1301 Composition I

ITSC 1305 Introduction to PC Operating Systems

GEN ED Mathematics course

**Second Semester**

CPMT 1305 IT Essentials I: PC Hardware and Software

ITSE 1311 Beginning Web Programming

ITSW 1304 Introduction to Spreadsheets – Excel

GEN ED Humanities/Fine Arts course

GEN ED Speech course

**SECOND YEAR**

**First Semester**

ENGL 2311 Technical and Business Writing

ITNW 1358 Network+

ITSW 1307 Introduction to Database – Access

ITSW 1310 Introduction to Presentation Graphics Software

MRKG 1301 Customer Relationship Management <sup>1</sup>

**Second Semester**

ITMT 1371 Configuring and Supporting Microsoft Windows 10

ITSC 2339 Personal Computer Help Desk Support

ITSC 2380 Cooperative Education – Computer and Information Sciences, General (Capstone) <sup>2</sup>

ITSE 1301 Web Design Tools – Graphics

ITSY 1300 Fundamentals of Information Security (Security+)

1. May substitute BMGT 1307 or BMGT 1344

2. May substitute INEW 2330

**AAS – Computer Systems – Information System Track**

60 credit hours

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

BCIS	1305	Business Computer Applications
<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> (See <a href="#">Social/Behavioral Sciences</a> Options)
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
ITSW	1310	Introduction to Presentation Graphics Software
<u>GEN ED</u>		<a href="#">Mathematics</a> course

**Second Semester**

COSC	1315	Introduction to Computer Programming <sup>1</sup>
ITSE	1311	Beginning Web Programming
ITSW	1304	Introduction to Spreadsheets – Excel
<u>GEN ED</u>		<a href="#">Humanities/Fine Arts</a> course
<u>GEN ED</u>		<a href="#">Speech</a> course

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

BMGT	1307	Team Building
ENGL	2311	Technical and Business Writing
IMED	2309	Internet Commerce <sup>2</sup>
ITNW	1358	Network+
ITSW	1307	Introduction to Database – Access

**Second Semester**

ITSC	2380	Cooperative Education – Computer and Information Sciences, General (Capstone) <sup>3</sup>
ITSE	2309	Database Programming – SQL
ITSY	1300	Fundamentals of Information Security (Security +)

BUSINESS ELECTIVE\*

TECHNICAL ELECTIVE\*\*

\* *Business Elective (3 credit hours): Any BMGT, BUSG, BUSI, IBUS course not listed above, excluding any Cooperative Education or Software Project course*

\*\* *Technical Elective (3 credit hours): Any COSC, GISC, IMED, ITCC, ITMT, ITNW, ITSC, or ITSE course not listed above, excluding any Cooperative Education or Software Project course*

1. May substitute COSC 1436
2. May substitute GISC 1411
3. May substitute INEW 2330

### AAS – Computer Systems – Database Development Track

60 credit hours

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

COSC	1315	Introduction to Computer Programming <sup>1</sup>
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<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> (See <a href="#">Social/Behavioral Sciences</a> Options)
ITSW	1304	Introduction to Spreadsheets – Excel
ITSW	1307	Introduction to Database – Access
<u>MATH</u>	<u>1324</u>	<u>Mathematics for Business and Social Sciences</u> (See <a href="#">Mathematics</a> options)

**Second Semester**

ITSE	1330	Introduction to C# Programming <sup>2</sup>
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
ITNW	1358	Network+
ITSE	2309	Database Programming – SQL
MATH	1342	Elementary Statistical Methods+

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

ENGL	2311	Technical and Business Writing
ITSE	1311	Beginning Web Programming
ITSE	2370	Descriptive Analytics
ITSW	2370	SAS Programming
<u>GEN ED</u>		<a href="#">Speech</a> course

**Second Semester**

ITSC	2380	Cooperative Education – Computer and Information Sciences, General (Capstone) <sup>3</sup>
ITSE	2347	Advanced Database Programming
ITSE	2354	Advanced Oracle PL/SQL
ITSY	1300	Fundamentals of Information Security (Security+)
<u>GEN ED</u>		<a href="#">Humanities/Fine Arts</a> course

1. May substitute COSC 1436
2. May substitute COSC 1437
3. May substitute INEW 2330

### OSA – Computer Applications

9 credit hours

ITSW	1304	Introduction to Spreadsheets – Excel
ITSW	1307	Introduction to Database – Access
ITSW	1310	Introduction to Presentation Graphics Software

### OSA – Help Desk Support

12 credit hours

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITSC	1305	Introduction to PC Operating Systems
ITSC	2339	Personal Computer Help Desk Support

*Note: ITNW 1358 and ITSC 1305 are prerequisites for ITSC 2339, or consent of instructor.*



**Certificate Level 1 – Computer Support**

30 credit hours

**Summer Semester**

ITSE	1311	Beginning Web Programming
ITSW	1304	Introduction to Spreadsheets – Excel

**First Semester**

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITSC	1305	Introduction to PC Operating Systems
ITSW	1310	Introduction to Presentation Graphics Software

**Second Semester**

ITSC	2339	Personal Computer Help Desk Support
ITSC	2380	Cooperative Education – Computer and Information Sciences, General (Capstone) <sup>1</sup>
ITSY	1300	Fundamentals of Information Security (Security+)
MRKG	1301	Customer Relationship Management <sup>2</sup>

1. May substitute INEW 2330
2. May substitute BMGT 1307 or BMGT 1344

**Certificate Level 2 – Computer Applications for Data Forensics and Informatics**

16 credit hours

*Students must be TSI complete.*

(Designed for the Health Information Management person and others interested in developing skills to assist with database management, queries and reporting)  
(Shares the 3 courses in the computer systems OSA-Computer Application)

**First Semester**

MATH	1342	Elementary Statistical Methods
ITSE	2309	Database Programming - SQL
ITSW	1304	Introduction to Spreadsheets - Excel
ITSW	1307	Introduction to Database - Access
ITSW	2472	Portfolio Development (Capstone)

**Certificate Level 2 – Information System**

30 credit hours

*Students must be TSI complete.***Summer Semester**

BCIS	1305	Business Computer Applications
COSC	1315	Introduction to Computer Programming

**First Semester**

IMED	2309	Internet Commerce <sup>1</sup>
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ITNW	1358	Network+
ITSW	1304	Introduction to Spreadsheets - Excel
ITSW	1310	Introduction to Presentation Graphics Software

**Second Semester**

BMGT	1307	Team Building <sup>2</sup>
ITSC	2380	Cooperative Education – Computer and Information Sciences, General (Capstone) <sup>3</sup>
ITSW	1307	Introduction to Database - Access
ITSY	1300	Fundamentals of Information Security (Security+)

1. May substitute GISC 1411
2. May substitute BMGT 1344 or BUSI 1301
3. May substitute INEW 2330

**Certificate Level 2 – Database Development**

30 credit hours

*Students must be TSI complete.***Summer Semester**

ITSW	1304	Introduction to Spreadsheets - Excel
ITSW	1307	Introduction to Database - Access

**First Semester**

COSC	1315	Introduction to Computer Programming <sup>1</sup>
ITNW	1358	Network+
ITSE	2309	Database Programming - SQL
ITSW	2370	SAS Programming
MATH	1342	Elementary Statistical Methods

**Second Semester**

ITSE	2347	Advanced Database Programming (Capstone)
ITSE	2354	Advanced Oracle PL/SQL
ITSY	1300	Fundamentals of Information Security (Security+)

1. May substitute COSC 1436

**CONSTRUCTION MANAGEMENT****Program Options:**

**AAS – Construction Management**  
**Certificate Level 1 – Residential or Commercial Construction Management**  
**Certificate Level 2 – Construction Manager**  
**OSA – Construction Management**

Build a better tomorrow and be a leader in one of the fastest growing industries in Collin County with a degree in Construction Management from Collin College. North Texas is home to many of the fastest-growing cities in the United States and the need for skilled construction managers is more important than ever.



Construction managers use a blend of skills sets from the fields of architecture, business, and engineering to manage residential and commercial construction projects.

Construction managers oversee the planning, design and construction of a project from beginning to end, ensuring that projects are completed safely, on time, and on budget.

Collin College's Construction Management program prepares students to work in a wide variety of management/supervisory roles, both in residential and commercial areas of construction. Key topics include scheduling, budgeting, personnel management, quality assurance, and safety.

Many of the courses will include practical hands-on labs. The program also offers the opportunity for a summer cooperative work experience.

### AAS – Construction Management

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce
<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> (See Social/Behavioral Sciences options)
<u>MATH</u>	<u>1324</u>	<u>Mathematics for Business and Social Sciences</u> (See <a href="#">Mathematics options</a> )
OSHT	1305	OSHA Regulations – Construction Industry

##### **Second Semester**

CNBT	2304	Construction Methods and Materials II
CNBT	2342	Construction Management I
<u>HUMA</u>	<u>1301</u>	<u>Introduction to Humanities</u> (See <a href="#">Humanities/Fine Arts</a> options)
<u>SPCH</u>	<u>1321</u>	<u>Business Professional Communication</u> (see <a href="#">Speech</a> Options)
CNBT	1300	Residential and Light Commercial Construction Drawings

##### **Summer Semester**

CNBT	1380	Cooperative Education – Construction Engineering Technology/Technician
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#### **SECOND YEAR**

##### **First Semester**

CNBT	1315	Field Engineering I
CNBT	1346	Construction Estimating I
CNBT	2344	Construction Management II
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
CNBT	2340	Mechanical, Plumbing & Electrical Systems in Construction II (Commercial)

##### **Second Semester**

CNBT	1342	Building Codes and Inspections
CNBT	1359	Project Scheduling
BMGT	1305	Communications in Management
CNBT	2346	Construction Management III (Capstone)

### Certificate Level 1 – Residential or Commercial Construction Management

30 credit hours

#### **FIRST YEAR**

##### **First Semester**

CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce
CNBT	2342	Construction Management I
OSHT	1305	OSHA Regulations – Construction Industry
CNBT	1300	Residential and Light Commercial Construction Drawings

##### **Second Semester**

CNBT	1342	Building Codes and Inspections
CNBT	1346	Construction Estimating I
CNBT	1359	Project Scheduling
CNBT	1380	Cooperative Education – Construction Engineering Technology/Technician (Capstone)
CNBT	2340	Mechanical, Plumbing & Electrical Systems in Construction II (Commercial)

### Certificate Level 2 – Construction Manager

45 credit hours

*Students must be TSI complete.*

#### **FIRST YEAR**

##### **First Semester**

CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce
OSHT	1305	OSHA Regulations – Construction Industry

##### **Second Semester**

CNBT	2304	Construction Methods and Materials II
CNBT	2342	Construction Management I
CNBT	1300	Residential and Light Commercial Construction Drawings

##### **Summer Semester**

CNBT	1380	Cooperative Education – Construction Engineering Technology/Technician
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#### **SECOND YEAR**

##### **First Semester**

CNBT	1315	Field Engineering I
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CNBT	1346	Construction Estimating I
CNBT	2344	Construction Management II
CNBT	2340	Mechanical, Plumbing & Electrical Systems in Construction II (Commercial)

### Second Semester

CNBT	1342	Building Codes and Inspections
CNBT	1359	Project Scheduling
BMGT	1305	Communications in Management
CNBT	2346	Construction Management III (Capstone)

### OSA – Construction Management

12 credit hours

CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce
CNBT	2342	Construction Management I
OSHT	1305	OSHA Regulations – Construction Industry

### CONSTRUCTION TECHNOLOGY - CARPENTRY

#### **AAS – Construction Technology - Carpentry**

##### **Certificate Level 1 – Construction Technology – Carpentry**

##### **Certificate Level 1 – Construction Technology – Carpentry Management**

##### **Certificate Level 2 – Construction Technology – Carpentry and Management**

The Construction Technology Carpentry program is designed to prepare students to enter the workforce at an entry level in carpentry by providing basics of the carpentry industry to prepare students for the carpentry workforce. This is accomplished through offering two types of Level 1 Certificates and a Level 2 Certificate. Additionally, the program is designed to align with the National Center for Construction Education and Research's (NCCER) Level 1 and Level 2 certifications. The program also provides the opportunity to complete an AAS that is specific to the construction industry for career advancement.

### AAS – Construction Technology – Carpentry

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

OSHT	1305	OSHA Regulations – Construction Industry
CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce
<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> (See <a href="#">Social/Behavioral Sciences</a> options)

<u>MATH</u>	<u>1324</u>	<u>Mathematics for Business and Social Sciences</u> (See <a href="#">Mathematics</a> options)
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#### **Second Semester**

BMGT	1305	Communications in Management
CNBT	1300	Residential and Light Commercial Construction Drawings
CNBT	2342	Construction Management I
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>HUMA</u>	<u>1301</u>	<u>Introduction to Humanities I</u> (See <a href="#">Humanities/Fine Arts</a> options)

#### **Summer Semester**

Construction Elective \*

### **SECOND YEAR**

#### **First Semester**

CNBT	1318	Construction Tools and Techniques
CRPT	1315	Wall Systems
CRPT	1323	Floor Systems
CRPT	1325	Forms and Foundations I
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> options)

#### **Second Semester**

CNBT	1342	Building Codes and Inspections (Capstone)
CRPT	1311	Roof Systems
CRPT	1341	Exterior Finish Systems
CRPT	1345	Interior Finish Systems

*\*Construction Elective (3 credit hours): ELPT 1371, HART 1371, OSHT 1307, or PFPB 1371*

### Certificate Level 1 – Construction Technology – Carpentry

24 credit hours

#### **FIRST YEAR**

##### **First Semester**

CNBT	1318	Construction Tools and Techniques
CRPT	1315	Wall Systems
CRPT	1323	Floor Systems
CRPT	1325	Forms and Foundations I

#### **Second Semester**

CNBT	1342	Building Codes and Inspections (Capstone)
CRPT	1311	Roof Systems
CRPT	1341	Exterior Finish Systems
CRPT	1345	Interior Finish Systems

### Certificate Level 1 – Construction Technology – Carpentry Management

24 credit hours

#### **FIRST YEAR**

##### **First Semester**

OSHT	1305	OSHA Regulations – Construction Industry
CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce

**Second Semester**

BMGT	1305	Communications in Management
CNBT	1300	Residential and Light Commercial Construction Drawings
CNBT	2342	Construction Management I

**Third Semester**

CNBT	1318	Construction Tools and Techniques (Capstone)
CRPT	1325	Forms and Foundations I

### Certificate Level 2 – Construction Technology – Carpentry and Management

45 credit hours

*Students must be TSI complete.***FIRST YEAR****First Semester**

OSHT	1305	OSHA Regulations – Construction Industry
CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce

**Second Semester**

BMGT	1305	Communications in Management
CNBT	1300	Residential and Light Commercial Construction Drawings
CNBT	2342	Construction Management I

**Summer Semester**

Construction Elective \*

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

CNBT	1318	Construction Tools and Techniques
CRPT	1315	Wall Systems
CRPT	1323	Floor Systems
CRPT	1325	Forms and Foundations I

**Second Semester**

CNBT	1342	Building Codes and Inspections (Capstone)
CRPT	1311	Roof Systems
CRPT	1341	Exterior Finish Systems
CRPT	1345	Interior Finish Systems

*\*Construction Elective (3 credit hours): ELPT 1371, HART 1371, OSHT 1307, or PFPB 1371*

**CONSTRUCTION TECHNOLOGY - ELECTRICAL****AAS – Construction Technology - Electrical****Certificate Level 1 – Construction Technology – Electrical****Certificate Level 1 – Construction Technology – Electrical Management****Certificate Level 2 – Construction Technology – Electrical and Management**

The Construction Technology Electrical program is designed to prepare students to enter the State of Texas Apprentice program for Electricians by providing basics of the electrical wiring industry to prepare student for the electrical workforce. This is accomplished through offering two types of Level 1 Certificates and a Level 2 Certificate. The program also provides the opportunity to complete an AAS that is specific to the construction industry for career advancement.

**AAS – Construction Technology – Electrical**

60 credit hours

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

OSHT	1305	OSHA Regulations – Construction Industry
CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce
<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> (See <a href="#">Social/Behavioral Sciences</a> options)
<u>MATH</u>	<u>1324</u>	<u>Mathematics for Business and Social Sciences</u> (See <a href="#">Mathematics</a> options)

**Second Semester**

BMGT	1305	Communications in Management
CNBT	1300	Residential and Light Commercial Construction Drawings
CNBT	2342	Construction Management I
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>HUMA</u>	<u>1301</u>	<u>Introduction to Humanities I</u> (See <a href="#">Humanities/Fine Arts</a> options)

**Summer Semester**

Construction Elective \*

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

ELPT	1311	Basic Electrical Theory
ELPT	1321	Introduction to Electrical Safety and Tools
ELPT	1325	National Electrical Code I
ELPT	1329	Residential Wiring
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> options)

**Second Semester**

ELPT	1357	Industrial Wiring
ELPT	1345	Commercial Wiring
ELPT	1341	Motor Control

ELPT 2305 Motors and Transformers (Capstone)

*\*Construction Elective (3 credit hours): HART 1371, OSHT 1307, or PFPB 1371*

### Certificate Level 1 – Construction Technology – Electrical

24 credit hours

#### **FIRST YEAR**

##### **First Semester**

ELPT 1311 Basic Electrical Theory  
 ELPT 1321 Introduction to Electrical Safety and Tools  
 ELPT 1325 National Electrical Code I  
 ELPT 1329 Residential Wiring

##### **Second Semester**

ELPT 1357 Industrial Wiring  
 ELPT 1345 Commercial Wiring  
 ELPT 1341 Motor Control  
 ELPT 2305 Motors and Transformers (Capstone)

### Certificate Level 1 – Construction Technology – Electrical Management

24 credit hours

#### **FIRST YEAR**

##### **First Semester**

OSHT 1305 OSHA Regulations – Construction Industry  
 CNBT 1311 Construction Materials and Methods I  
 CNBT 1371 Technology for the Mobile Workforce

##### **Second Semester**

BMGT 1305 Communications in Management  
 CNBT 1300 Residential and Light Commercial Construction Drawings

##### **Third Semester**

CNBT 2342 Construction Management I (Capstone)  
 ELPT 1311 Basic Electrical Theory  
 ELPT 1321 Introduction to Electrical Safety and Tools

### Certificate Level 2 – Construction Technology – Electrical and Management

45 credit hours

*Students must be TSI complete.*

#### **FIRST YEAR**

##### **First Semester**

OSHT 1305 OSHA Regulations – Construction Industry  
 CNBT 1311 Construction Materials and Methods I

CNBT 1371 Technology for the Mobile Workforce

#### **Second Semester**

BMGT 1305 Communications in Management  
 CNBT 1300 Residential and Light Commercial Construction Drawings  
 CNBT 2342 Construction Management I

#### **Summer Semester**

Construction Elective \*

#### **SECOND YEAR**

##### **First Semester**

ELPT 1311 Basic Electrical Theory  
 ELPT 1321 Introduction to Electrical Safety and Tools  
 ELPT 1325 National Electrical Code I  
 ELPT 1329 Residential Wiring

##### **Second Semester**

ELPT 1357 Industrial Wiring  
 ELPT 1345 Commercial Wiring  
 ELPT 1341 Motor Control  
 ELPT 2305 Motors and Transformers (Capstone)

*\*Construction Elective (3 credit hours): HART 1371, OSHT 1307, or PFPB 1371*

### CONSTRUCTION TECHNOLOGY – FACILITIES MANAGEMENT

#### **AAS – Construction Technology - Facilities Management**

##### **Certificate Level 1 – Construction Technology – Facilities Management**

##### **Certificate Level 2 – Construction Technology – Facilities Management**

The Construction Technology Facilities Management program is designed to prepare students to enter the workforce at an entry level in the field of Facilities Management. The program provides both managerial and hands-on technical courses related to the area. The program has a Level 1 Certificate, a Level 2 Certificate, and Associate of Applied Science degree options.

### AAS – Construction Technology – Facilities Management

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

OSHT 1305 OSHA Regulations – Construction Industry  
 CNBT 1311 Construction Materials and Methods I  
 CNBT 1371 Technology for the Mobile Workforce  
ECON 1301 Introduction to Economics (See [Social/Behavioral Sciences](#) options)

MATH 1324 Mathematics for Business and Social Sciences (See [Mathematics](#) options)

### Second Semester

BMGT 1305 Communications in Management  
CNBT 1300 Residential and Light Commercial Construction Drawings

BMGT 1306 Facilities Management

ENGL 1301 Composition I

HUMA 1301 Introduction to Humanities I (See [Humanities/Fine Arts](#) options)

### Summer Semester

CNBT 2380 Cooperative Education - Construction Engineering Technology/Technician

## SECOND YEAR

### First Semester

CNBT 2342 Construction Management I

ELPT 1371 Electrical Fundamentals

HART 1371 HVAC Fundamentals

PFPB 1371 Plumbing Fundamentals

SPCH 1321 Business and Professional Communication (See [Speech](#) options)

### Second Semester

BMGT 1309 Information and Project Management

BMGT 2303 Problem Solving and Decision Making

CNBT 2340 Mechanical, Plumbing & Electrical Systems in Construction II (Capstone)

HART 1303 Air Conditioning Control Principles

## Certificate Level 1 – Construction Technology – Facilities Management

24 credit hours

### FIRST YEAR

#### First Semester

OSHT 1305 OSHA Regulations – Construction Industry

CNBT 1311 Construction Materials and Methods I

CNBT 1371 Technology for the Mobile Workforce

#### Second Semester

BMGT 1305 Communications in Management

CNBT 1300 Residential and Light Commercial Construction Drawings

### Third Semester

CNBT 2342 Construction Management I (Capstone)

ELPT 1371 Electrical Fundamentals

PFPB 1371 Plumbing Fundamentals

## Certificate Level 2 – Construction Technology – Facilities Management

45 credit hours

*Students must be TSI complete.*

## FIRST YEAR

### First Semester

OSHT 1305 OSHA Regulations – Construction Industry

CNBT 1311 Construction Materials and Methods I

CNBT 1371 Technology for the Mobile Workforce

### Second Semester

BMGT 1305 Communications in Management

CNBT 1300 Residential and Light Commercial Construction Drawings

BMGT 1306 Facilities Management

### Summer Semester

CNBT 2380 Cooperative Education - Construction Engineering Technology/Technician

## SECOND YEAR

### First Semester

CNBT 2342 Construction Management I

ELPT 1371 Electrical Fundamentals

HART 1371 HVAC Fundamentals

PFPB 1371 Plumbing Fundamentals

### Second Semester

BMGT 1309 Information and Project Management

BMGT 2303 Problem Solving and Decision Making

CNBT 2340 Mechanical, Plumbing & Electrical Systems in Construction II (Capstone)

HART 1303 Air Conditioning Control Principles

## CONSTRUCTION TECHNOLOGY - PLUMBING

### AAS – Construction Technology - Plumbing Certificate Level 1 – Construction Technology – Plumbing

#### Certificate Level 1 – Construction Technology – Plumbing Management

#### Certificate Level 2 – Construction Technology – Plumbing and Management

The Construction Technology Plumbing program is designed to prepare students to enter the workforce as an entry level plumber in the State of Texas Apprenticeship in Plumbing area by providing basics of plumbing so they are productive much sooner than traditional transitions into the field. This is accomplished through offering two types of Level 1 Certificates and a Level 2 Certificate. The program also provides the opportunity to complete an AAS that is specific to the construction industry for career advancement.

### AAS – Construction Technology – Plumbing

60 credit hours



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

OSHT	1305	OSHA Regulations – Construction Industry
CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce
<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> (See <a href="#">Social/Behavioral Sciences</a> options)
<u>MATH</u>	<u>1324</u>	<u>Mathematics for Business and Social Sciences</u> (See <a href="#">Mathematics</a> options)

**Second Semester**

BMGT	1305	Communications in Management
CNBT	1300	Residential and Light Commercial Construction Drawings
CNBT	2342	Construction Management I
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>HUMA</u>	<u>1301</u>	<u>Introduction to Humanities I</u> (See <a href="#">Humanities/Fine Arts</a> options)

**Summer Semester**

Construction Elective \*

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

PFPB	1321	Plumbing Maintenance and Repair
PFPB	1323	Plumbing Codes I
PFPB	1350	Plumbing and Pipefitting Equipment and Safety
PFPB	2349	Field Measuring, Sketching, and Layout
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> options)

**Second Semester**

PFPB	1347	Backflow Prevention
PFPB	2308	Piping Standards and Materials (Capstone)
PFPB	2309	Residential Construction Plumbing I
PFPB	2336	Commercial Construction and Fixture Setting

\*Construction Elective (3 credit hours): ELPT 1371, HART 1371, or OSHT 1307

**Certificate Level 1 – Construction Technology – Plumbing**

24 credit hours

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

PFPB	1321	Plumbing Maintenance and Repair
PFPB	1323	Plumbing Codes I
PFPB	1350	Plumbing and Pipefitting Equipment and Safety
PFPB	2349	Field Measuring, Sketching, and Layout

**Second Semester**

PFPB	1347	Backflow Prevention
PFPB	2308	Piping Standards and Materials (Capstone)
PFPB	2309	Residential Construction Plumbing I
PFPB	2336	Commercial Construction and Fixture Setting

**Certificate Level 1 – Construction Technology – Plumbing Management**

24 credit hours

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

OSHT	1305	OSHA Regulations – Construction Industry
CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce

**Second Semester**

BMGT	1305	Communications in Management
CNBT	1300	Residential and Light Commercial Construction Drawings

**Third Semester**

CNBT	2342	Construction Management I (Capstone)
PFPB	1321	Plumbing Maintenance and Repair
PFPB	1323	Plumbing Codes I

**Certificate Level 2 – Construction Technology – Plumbing and Management**

45 credit hours

*Students must be TSI complete.*

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

OSHT	1305	OSHA Regulations – Construction Industry
CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce

**Second Semester**

BMGT	1305	Communications in Management
CNBT	1300	Residential and Light Commercial Construction Drawings
CNBT	2342	Construction Management I

**Summer Semester**

Construction Elective \*

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

PFPB	1321	Plumbing Maintenance and Repair
PFPB	1323	Plumbing Codes I
PFPB	1350	Plumbing and Pipefitting Equipment and Safety
PFPB	2349	Field Measuring, Sketching, and Layout



**Second Semester**

PFPB	1347	Backflow Prevention
PFPB	2308	Piping Standards and Materials (Capstone)
PFPB	2309	Residential Construction Plumbing I
PFPB	2336	Commercial Construction and Fixture Setting

*\*Construction Elective (3 credit hours): ELPT 1371, HART 1371, or OSHT 1307*

**CONSTRUCTION TECHNOLOGY - SAFETY****AAS – Construction Technology - Safety****Certificate Level 1 – Construction Technology – Safety  
Certificate Level 1 – Construction Technology – Safety Management****Certificate Level 2 – Construction Technology – Safety and Management**

The Construction Technology Safety program is designed to prepare students to enter the workforce as an entry level construction Safety Officer by providing a wide variety of construction safety and management courses. This is accomplished through offering two types of Level 1 Certificates and a Level 2 Certificate and an AAS.

**AAS – Construction Technology – Safety**

60 credit hours

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

OSHT	1305	OSHA Regulations – Construction Industry
CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce
<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> (See <a href="#">Social/Behavioral Sciences</a> options)
<u>MATH</u>	<u>1324</u>	<u>Mathematics for Business and Social Sciences</u> (See <a href="#">Mathematics</a> options)

**Second Semester**

BMGT	1305	Communications in Management
CNBT	1300	Residential and Light Commercial Construction Drawings
CNBT	2342	Construction Management I
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>HUMA</u>	<u>1301</u>	<u>Introduction to Humanities I</u> (See <a href="#">Humanities/Fine Arts</a> options)

**Summer Semester**

Construction Elective \*

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

OSHT	1307	Construction Site Safety and Health
OSHT	1309	Physical Hazards Control

OSHT	1313	Accident Prevention, Inspection, and Investigation
OSHT	1316	Material Handling
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> options)

**Second Semester**

OSHT	2309	Safety Program Management
OSHT	2310	Principles of Safety Engineering
OSHT	2337	Advanced Risk Management (Capstone)
OSHT	2380	Cooperative Education - Occupational Safety and Health Technology/Technician

*\*Construction Elective (3 credit hours): ELPT 1371, HART 1371, or PFPB 1371*

**Certificate Level 1 – Construction Technology – Safety**

24 credit hours

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

OSHT	1307	Construction Site Safety and Health
OSHT	1309	Physical Hazards Control
OSHT	1313	Accident Prevention, Inspection, and Investigation
OSHT	1316	Material Handling

**Second Semester**

OSHT	2309	Safety Program Management
OSHT	2310	Principles of Safety Engineering
OSHT	2337	Advanced Risk Management (Capstone)
OSHT	2380	Cooperative Education - Occupational Safety and Health Technology/Technician

**Certificate Level 1 – Construction Technology – Safety Management**

24 credit hours

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

OSHT	1305	OSHA Regulations – Construction Industry
CNBT	1311	Construction Materials and Methods I
CNBT	1371	Technology for the Mobile Workforce

**Second Semester**

BMGT	1305	Communications in Management
CNBT	1300	Residential and Light Commercial Construction Drawings
CNBT	2342	Construction Management I

**Third Semester**

OSHT	1307	Construction Site Safety and Health
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OSHT 1313 Accident Prevention, Inspection, and Investigation (Capstone)

### Certificate Level 2 – Construction Technology – Safety and Management

45 credit hours

*Students must be TSI complete.*

#### **FIRST YEAR**

##### **First Semester**

OSHT 1305 OSHA Regulations – Construction Industry  
 CNBT 1311 Construction Materials and Methods I  
 CNBT 1371 Technology for the Mobile Workforce

##### **Second Semester**

BMGT 1305 Communications in Management  
 CNBT 1300 Residential and Light Commercial Construction Drawings  
 CNBT 2342 Construction Management I

##### **Summer Semester**

Construction Elective \*

#### **SECOND YEAR**

##### **First Semester**

OSHT 1307 Construction Site Safety and Health  
 OSHT 1309 Physical Hazards Control  
 OSHT 1313 Accident Prevention, Inspection, and Investigation  
 OSHT 1316 Material Handling

##### **Second Semester**

OSHT 2309 Safety Program Management  
 OSHT 2310 Principles of Safety Engineering  
 OSHT 2337 Advanced Risk Management (Capstone)  
 OSHT 2380 Cooperative Education - Occupational Safety and Health Technology/Technician

*\*Construction Elective (3 credit hours): ELPT 1371, HART 1371, or PFPB 1371*

#### **CULINARY ARTS**

*Also see Pastry Arts*

##### **Department Website:**

<http://www.collin.edu/department/ihce/index.html>

##### **Program Options:**

**AAS – Culinary Arts**

**Certificate Level 1 – Culinary Arts**

**Certificate Level 3 – ESC – Advanced Culinary Arts**

Food is life, and you can learn to make life even more enjoyable with a certificate or degree from Collin College's Culinary Arts program.

A part of the college's Institute of Hospitality and Culinary Education (IHCE), Collin College's Culinary Arts program will prepare you for a variety of food preparation positions and for career advancement in the food service industry. The program curriculum emphasizes a broad selection of hands-on food preparation courses, building on culinary foundation skills that will allow you to be effective in a commercial kitchen environment.

The curriculum is designed by industry experts and taught by experienced food service management professionals, and the program is fully accredited by the American Culinary Federation Education Foundation.

#### **TRANSFER**

Students planning to transfer to a college or university should check with a Collin College academic advisor. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

#### **ACCREDITATION**

The Culinary Arts Program is fully accredited by the American Culinary Federation Education Foundation.

They may be contacted at:

180 Center Place Way  
 St. Augustine, FL 32095  
 800.624.9458

<http://www.acfchefs.org>

#### **ADMISSION REQUIREMENTS**

Students are required to attend mandatory Culinary Arts Orientation. Please visit the program website (<http://www.collin.edu/department/ihce/>) for dates and times.

*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.*

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

#### **AAS – Culinary Arts**

60 credit hours

*An American Culinary Federation (ACF) accredited program. Students will be eligible for Certified Culinarian (CC) upon graduation.*

#### **FIRST YEAR**

##### **First Semester**

CHEF 1301 Basic Food Preparation

CHEF	1305	Sanitation and Safety <sup>1,2</sup>
CHEF	2331	Advanced Food Preparation
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
HAMG	1321	Introduction to Hospitality Industry

**Second Semester**

CHEF	1341	American Regional Cuisine
CHEF	2302	Saucier
IFWA	1310	Nutrition and Menu Planning
RSTO	1325	Purchasing for Hospitality Operations
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> Course

**Third Semester**

<u>MATH</u>	<u>1332</u>	<u>Contemporary Mathematics</u> <u>(Quantitative Reasoning)</u> (See <u>Mathematics</u> options)
PSTR	1301	Fundamentals of Baking

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

CHEF	1310	Garde Manger
HAMG	1324	Hospitality Human Resources Management
<u>GEN ED</u>		<u>Social/Behavioral Sciences</u> Course
ELECTIVE *		

**Second Semester**

CHEF	1314	A La Carte Cooking (Capstone)
CHEF	2380	Cooperative Education – Culinary Arts/Chef Training
RSTO	1304	Dining Room Service
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional</u> <u>Communication</u> (See <u>Speech</u> Options)

\* Elective (3 credit hours): CHEF 1302, CHEF 1345, CHEF 1364, CHEF 2336, HAMG 1313, HAMG 1340, HAMG 2301, HAMG 2332, HAMG 2337, IFWA 1319, PSTR 1305, PSTR 1306, PSTR 2301, RSTO 2307 or TRVM 2301

1. Certification in ServSafe
2. Certification in Food Protection Management

Many courses are offered in eight-week express sessions.

**Certificate Level 1 – Culinary Arts**

24 credit hours

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

CHEF	1301	Basic Food Preparation
CHEF	1305	Sanitation and Safety <sup>1,2</sup>
CHEF	2331	Advanced Food Preparation
PSTR	1301	Fundamentals of Baking

**Second Semester**

CHEF	1310	Garde Manger (Capstone)
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CHEF	1341	American Regional Cuisine
CHEF	2302	Saucier
IFWA	1310	Nutrition and Menu Planning

1. Certification in ServSafe
2. Certification in Food Protection Management

Many courses are offered in eight-week express sessions.

**Certificate Level 3 – ESC – Advanced Culinary Arts**

12 credit hours

Prior to being admitted to this program, students must provide official documentation showing they have earned a Certificate or AAS in Culinary Arts

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

CHEF	1345	International Cuisine
IFWA	1319	Meat Identifying and Processing

**Second Semester**

CHEF	1302	Principles of Healthy Cuisine
CHEF	2336	Charcuterie (Capstone)

Many courses are offered in eight-week express sessions.

**DENTAL HYGIENE****Department Website:**

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

**Program Options:****AAS – Dental Hygiene**

Dental hygienists do more than clean patients' teeth. Collin College's two-year dental hygiene program can teach you to perform clinical procedures, oral cancer screenings, dental nutritional counseling and identify potential health problems, as well as understand the physical and clinical aspects of treatment, so you can treat the whole patient.

The Dental Hygiene program is designed to prepare you to become a licensed health care professional who specializes in non-surgical periodontal therapy and oral health education. Use advanced technology like intraoral cameras and digital radiography, and gain hands-on training in the college's dental clinic, working with community members in search of low-cost dental care. The mix of the newest clinical technologies with a broad-based education in biological sciences, humanities and the dental sciences means you will be ready for work in private practice and community settings as a member of the dental health team.

Enrollment is limited and admission is competitive.

**Licensure Notice:** Students who have been involved with the criminal system, please be advised that your

background could keep you from being licensed by the State of Texas. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

Dental Hygiene students must meet eligibility requirements for licensure as established by the State Board of Dental Examiners (<http://www.tsbde.texas.gov/>) 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 American Heart Association Basic Life Support 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 titer and annual TB testing, annual Flu vaccine, Varicella titer and TDap shot.

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 Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

## **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 College’s Dental Hygiene Program is accredited by the American Dental Association’s Commission on Dental Accreditation (CODA) 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://www.collin.edu/dentalhygiene/>.

- Complete pre-entrance course requirements with a minimum 2.5 GPA
- Earn a grade of “C” or better in all courses applicable to the Dental Hygiene program
- Submit official copies of all college transcripts
- Complete the health exam with a satisfactory result
- Completion of immunizations required by the Texas Department of State Health Services (TDSHS) \*
- Submit a typed, one -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
- Completion of an Observation Form: Observing of a dental office/Registered Dental Hygienist
- Completion of a personal interview with the Program Director and faculty

*\* 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. All immunizations must be completed before the first clinical visit.*

**AAS – Dental Hygiene**

68 credit hours

*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 of the admission year in order to receive transfer credit.*

**PRE-ENTRANCE REQUIREMENTS**

<u>BIOL</u>	<u>2401</u>	<u>Anatomy and Physiology I</u> <sup>1</sup>
BIOL	2402	Anatomy and Physiology II
BIOL	2420	Microbiology for Non-Science Majors
CHEM	1405	Introduction to Chemistry I

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

DHYG	1201	Orofacial Anatomy, Histology and Embryology
DHYG	1304	Dental Radiology
DHYG	1431	Preclinical Dental Hygiene
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u> (See <a href="#">Speech</a> options)

**Second Semester**

DHYG	1207	General and Dental Nutrition
DHYG	1219	Dental Materials
DHYG	1227	Preventive Dental Hygiene Care
DHYG	1235	Pharmacology for the Dental Hygienist
DHYG	1261	Clinical I – Dental Hygienist
<u>PSYC</u>	<u>2301</u>	<u>General Psychology</u> <sup>1</sup>

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

DHYG	1211	Periodontology
DHYG	1215	Community Dentistry
DHYG	1239	General and Oral Pathology
DHYG	2153	Dental Hygiene Practice
DHYG	2201	Dental Hygiene Care I
DHYG	2361	Clinical II – Dental Hygienist

**Second Semester**

DHYG	2102	Applied Community Dentistry
DHYG	2231	Dental Hygiene Care II (Capstone)
DHYG	2363	Clinical III – Dental Hygienist
<u>GEN ED</u>		<u>Humanities/Fine Arts course</u>
SOCI	1301	Introduction to Sociology

1. No course substitutions

**DIAGNOSTIC MEDICAL SONOGRAPHY****Program Option:****AAS – Diagnostic Medical Sonography**

Diagnostic imaging is one of the most commonly used technologies in the medical profession. With a degree in diagnostic medical sonography from Collin College, you

can be part of a team that helps identify medical issues early enough to make a real difference in people's lives

Collin College's Diagnostic Medical Sonography program is designed to prepare you to become registered as a diagnostic medical sonographer. Through our rigorous 21 month integrated didactic and clinical program, students graduate with the skills and knowledge required to be competent in general sonography.

**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 College Diagnostic Medical Sonography is seeking accreditation from the Commission on Accreditation of Allied Health Education Programs (25400 U.S. Highway 19 North, Suite 158. Clearwater, FL 33763; 727.210.2350; [www.caahep.org](http://www.caahep.org)) with the recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography (6021 University Boulevard, Suite 500, Ellicott City, MD 21043; 443-973-3251; [www.jrcdms.org](http://www.jrcdms.org)).

**SPECIAL ADMISSION REQUIREMENTS**

Admission to this program is selective. Admission to the college does not guarantee admission to the Diagnostic Medical Sonography Program. Registration is by permission only. Information and applications may be obtained online or from the Health Sciences and Emergency Services division office.

To apply, students must:

- Submit the required application form by the designated deadline.
- Application and acceptance into Collin College.
- Submit official copies of all college transcripts.
- Complete Collin College reading, writing and mathematics assessments.
- Complete the health exam with a satisfactory result
- Complete program admission criteria (see Admission Packet).
- Complete immunizations required by the Texas Department of State Health Services (TDSHS)\*.



- Current American Heart Association Basic Life Support CPR certification.

*\* 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 Sonography students are required to show proof of health insurance prior to starting clinical rotations each semester.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

Students planning to transfer to a college or university should check with the Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

### AAS – Diagnostic Medical Sonography

65 credit hours

#### **PREREQUISITES**

<u>BIOL</u>	<u>2401</u>	<u>Anatomy and Physiology I</u>
BIOL	2402	Anatomy and Physiology II
DMSO	1210	Introduction to Sonography
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>MATH</u>	<u>1314</u>	<u>College Algebra</u> <sup>1</sup>
PHYS	1405	Conceptual Physics

#### **FIRST YEAR**

##### **First Semester (Spring)**

DMSO	1202	Basic Ultrasound Physics
DMSO	1441	Abdominopelvic Sonography
DMSO	1455	Sonographic Pathophysiology
DMSO	2353	Sonography of Superficial Structures
<u>PSYC</u>	<u>2301</u>	<u>General Psychology</u>

(See [Social/Behavioral Sciences](#) options)

##### **Second Semester (Summer)**

DMSO	2243	Advanced Ultrasound Physics
DMSO	2405	Sonography of Obstetrics/Gynecology
DSVT	1300	Principles of Vascular Technology

#### **SECOND YEAR (Fall)**

##### **First Semester**

DMSO	1167	Practicum 1 - Diagnostic Medical
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Sonography/Sonographer and  
Ultrasound Technician

DMSO	1201	Techniques of Medical Sonography
DMSO	2342	Sonography of High Risk Obstetrics
DSVT	2200	Vascular Technology Applications

##### **Second Semester (Spring)**

DMSO	1466	Practicum 2 - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician
<u>GEN ED</u>		<u>Humanities/Fine Arts course</u>

##### **Third Semester (Summer)**

DMSO	1366	Practicum 3 - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician
DMSO	2230	Advanced Ultrasound and Review (Capstone)

*1. May substitute MATH 1324, MATH 1342, MATH 1414, or MATH 2412*

#### **EARLY CHILDHOOD EDUCATOR**

*Also see [Associate of Arts in Teaching \(AAT\)](#)*

##### **Program Options:**

**AAS – Early Childhood Educator (0-8 years)**

**OSA – Early Childhood Administrator**

**OSA – Child Development Associate (CDA)**

**OSA – Special Educator (0-8 years)**

**Certificate Level 1 – Early Childhood Educator (0-8 years)**

**Certificate Level 1 – Child Development Associate (CDA)**

Whether you want to be a teacher or just enjoy working with young children, the Early Childhood Educator program at Collin College could be the perfect starting point for you.

Early Childhood Educator certificate and degree programs are designed to prepare students to study at four-year universities and for entry-level positions working with young children and their families. The program emphasizes a developmental approach to promote the physical, social, emotional and cognitive growth of the children. Students acquire knowledge and skills that prepare them to create developmentally appropriate, nurturing environments. The Child Development Associate (CDA) program provides performance-based training of childcare professionals who work with children from birth through age 8.

Occupational Skills Awards (OSA) are nine-hour awards that enhance students' marketability. These awards are also designed as a stepping stone toward earning certificates or the Associate of Applied Science in Early Childhood Education.



Coursework is applicable as in-service training for teachers, administrators, nannies and family day home providers.

If you plan to transfer to a college or university, be sure to check with Collin College academic advisors and the degree requirements of the intended transfer college before beginning this program to verify course degree applicability. If you plan to obtain a bachelor's degree in Child Development, Texas Woman's University (TWU) accepts Collin College's AAS-Early Childhood Educator. Check with an advisor at TWU for more information. Additional colleges also accept Collin College courses in early childhood education; check with individual colleges for their requirements.

### Program Requirements

1. Enroll in a Collin College child development course.
2. Within the first two weeks of their child development course, students must complete required paperwork to begin lab observations. A copy of a negative tuberculosis test result may be required. Continuing students may need to re-submit 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 child care centers
- Verification that the student has read and agrees to follow the laboratory student guidelines
- Students must undergo and pass a criminal background history check by the Texas Department of Protective and Regulatory Services
- Provide a notarized affidavit that confidentiality and professional discretion will be observed at all times
- Personal release for videotaping for instructional purposes
- Complete a Degree Plan (two-part document found on Collin College's website under Getting Started/Admissions/Forms or in the Admissions Office) and submit to an advisor

It is the student's responsibility to keep all information current.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

### AAS – Early Childhood Educator (0-8) years

60 credit hours

*There are three focus options. You must select ONE focus and complete the three-course sequence.*

### FIRST YEAR

#### First Semester

CDEC	1319	Child Guidance
CDEC	1323	Observation and Assessment
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
TECA	1311	Educating Young Children
TECA	1354	Child Growth and Development

#### Second Semester

CDEC	1321	The Infant and Toddler
CDEC	1270	Introduction to Teaching ESL
<u>EDUC</u>	<u>1300</u>	<u>Learning Framework</u>
TECA	1303	Families, School, and Community
ELECTIVE	1*	

### SECOND YEAR

#### First Semester

CDEC	1313	Curriculum Resources for Early Childhood Programs
CDEC	1359	Children with Special Needs
CDEC	2304	Child Abuse and Neglect
CDEC	2371	Using Technology in the Classroom
ELECTIVE	2 *	

#### Second Semester

TECA	1318	Wellness of the Young Child
CDEC	2166	Practicum – Child Care Provider/Assistant (Capstone)
<u>GEN ED</u>		<u>Humanities / Fine Arts</u> course
<u>GEN ED</u>		<u>Mathematics / Natural Sciences</u> course
<u>GEN ED</u>		<u>Social / Behavioral Sciences</u> course
ELECTIVE	3*	

*\*ELECTIVE Sequences 1-3*

### Child Development Associate (CDA) Focus

Elective 1		
CDEC	1317	Child Development Associate Training I
Elective 2		
CDEC	2322	Child Development Associate Training II
Elective 3		
CDEC	2324	Child Development Associate Training III

### Administration Focus

Elective 1		
CDEC	2326	Administration of Programs for Children I
Elective 2		
CDEC	2328	Administration of Programs for Children II

Elective 3  
CDEC 2336 Administration of Programs for Children III

### **Early Childhood Educator Focus**

Elective 1  
CDEC 2340 Instructional Technique for Children with Special Needs

Elective 2  
CDEC 2307 Math and Science for Early Childhood  
OR  
CDEC 1358 Creative Arts for Early Childhood

Elective 3  
CDEC 1385 Cooperative Education – Child Development

### **OSA – Early Childhood Administrator**

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

### **OSA – Child Development Associate (CDA)**

9 credit hours

CDEC 1317 Child Development Associate Training I  
CDEC 2322 Child Development Associate Training II  
CDEC 2324 Child Development Associate Training III

### **OSA – Special Educator (0-8 Years)**

9 credit hours

TECA 1354 Child Growth and Development  
CDEC 1359 Children with Special Needs  
CDEC 2340 Instructional Techniques for Children with Special Needs

### **Certificate Level 1 – Child Development Associate (CDA)**

16 credit hours

CDEC 1317 Child Development Associate Training I  
CDEC 2322 Child Development Associate Training II  
CDEC 2324 Child Development Associate Training III  
TECA 1318 Wellness of the Young Child  
TECA 1354 Child Growth and Development  
CDEC 2166 Practicum – Child Care/Assistant (Capstone)

### **Certificate Level 1 – Early Childhood Educator (0-8 Years)**

39 credit hours

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

#### **First Year**

##### **First Semester**

CDEC 1319 Child Guidance  
CDEC 1321 The Infant and Toddler  
CDEC 1323 Observation and Assessment  
CDEC 1359 Children with Special Needs  
TECA 1311 Educating Young Children

##### **Second Semester**

CDEC 1270 Introduction to Teaching ESL  
TECA 1303 Families, School, and Community  
TECA 1354 Child Growth and Development  
CDEC 1313 Curriculum Resources for Early Childhood Programs  
TECA 1318 Wellness of the Young Child

##### **Third Semester**

CDEC 2166 Practicum – Child Care Provider/Assistant (Capstone)  
CDEC 2304 Child Abuse and Neglect  
CDEC 2340 Instructional Techniques for Children with Special Needs  
CDEC 2371 Using Technology in the Classroom

### **ELECTRONIC ENGINEERING TECHNOLOGY**

#### **Program Options:**

#### **AAS – Electronic Engineering Technology Certificate Level 1 – Electronic Engineering Technology**

Take your knowledge of electronics to a deeper level in the Electronic Engineering Technology program at Collin College. This program emphasizes the application of mathematical theorems and applied physics in the design and analysis of electronic circuits. You will learn classroom theory and perform hands-on laboratory design and analysis experiments.

The program curriculum and laboratory equipment have been formally evaluated and endorsed by an advisory committee consisting of members of the electronics industry, so you can be sure you are learning the skills you will need to earn a job once you graduate college.

Collin College offers an Associate of Applied Science and a level 1 certificate in electronic engineering technology. Students may also transfer their completed program toward a bachelor's degree into several colleges and universities.

## AAS – Electronic Engineering Technology

60 credit hours

### FIRST YEAR

#### First Semester

CETT	1407	Fundamentals of Electronics
CETT	1425	Digital Fundamentals
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
TECM	1343	Technical Algebra and Trigonometry <sup>1</sup>

#### Second Semester

CETT	1409	DC-AC Circuits
CETT	1445	Microprocessor
RBTC	1405	Robotic Fundamentals
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

#### Summer Semester

<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> options)
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### SECOND YEAR

#### First Semester

CETT	2471	Emerging Topics in Engineering Technology
INTC	1307	Instrumentation Test Equipment
<u>PHYS</u>	<u>1405</u>	<u>Conceptual Physics</u> <sup>2</sup>
ELECTIVE	*	

#### Second Semester

CETT	1457	Linear Integrated Circuits
<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> <sup>3</sup>
EECT	2439	Communications Circuits (Capstone)
ELECTIVE	*	

\* *Electives (6 credit hours): DFTG 1372, EECT 2380, RBTC 2345, or SUAS 1371*

1. *May substitute MATH 1316 or higher level Math (recommended for transfer students)*

2. *May substitute PHYS 1401*

3. *May substitute ECON 2301 or ECON 2302 (recommended for transfer students)*

## Certificate Level 1 – Electronic Engineering Technology

34 credit hours

### FIRST YEAR

#### First Semester

CETT	1407	Fundamentals of Electronics
CETT	1425	Digital Fundamentals
TECM	1343	Technical Algebra and Trigonometry <sup>1</sup>

#### Second Semester

CETT	1409	DC-AC Circuits
CETT	1445	Microprocessor

### SECOND YEAR

#### First Semester

CETT	2471	Emerging Topics in Engineering Technology
INTC	1307	Instrumentation Test Equipment

#### Second Semester

CETT	1457	Linear Integrated Circuits
EECT	2439	Communications Circuits (Capstone)

1. *May substitute MATH 1316 or higher level Math.*

## EMERGENCY MEDICAL SERVICES PROFESSIONS

### Department Website:

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

### Program Options:

**AAS – Emergency Medical Services Professions**

**OSA – Emergency Medical Services Professions**

**Certificate Level 1 – Advanced EMT**

**Certificate Level 1 – Paramedic**

Emergency medical personnel are on the front lines of medicine, providing patients in need with life-saving care. Be a part of that mission with a degree, certificate or award in Emergency Medical Services Professions. Collin College's Emergency Medical Services Professions program will provide you with a foundation for careers in emergency medicine and other related health care fields.

This program has three options: The OSA – Emergency Medical Services Professions prepares students for entry-level positions. Students completing the Certificate – EMS Paramedic are well positioned for higher paying jobs. Completion of the AAS – Emergency Medical Services Professions degree will benefit students seeking promotion in the EMS field.

This program prepares students for skills proficiency verification by the training program medical director; and written and practical exam administered by National Registry. A licensed paramedic has an associate degree (or higher) and tests on the same skills for EMT-Paramedic.

Learn more at the webpage above or contact the EMS office at 972.548.6530.

**Licensure Notice:** Students who have been involved with the criminal system, please be advised that your background could keep you from being licensed by the State of Texas. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

Once a student successfully completes requirements for the National Registry, he or she may become certified by the Texas Department of State Health Services EMS Division. Both levels of certification require periodic and specific recertification hours and activities to continue to practice as an emergency medical technician.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

### ACCREDITATION

The Collin College Emergency Medical Technician – Paramedic program is accredited by the Commission on Accreditation of Allied Health Education Programs (<http://www.caahep.org>) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). They may be contacted at:

1361 Park Street  
Clearwater, FL 33756  
727.210.2350  
<http://www.caahep.org>

### 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

Admission to this program is selective. Admission to the college does not guarantee admission to the Emergency Medical Services Program. Registration is by permission only. Information and applications may be obtained from the Program Director, the EMS Office, or the EMS website at <http://www.collin.edu/EMS>.

- Provide proof of high school graduation or GED
- 18 years of age
- Complete program application
- Complete ACCUPLACER Reading Comprehension test (Minimum score 78); Complete ACCUPLACER Arithmetic test (Minimum score 78); Complete WritePlacer test (Minimum score 4)
- Be certified as American Heart Association CPR Basic Life Support (BLS).
- Personal interview

- Drug test
- Criminal history check
- Complete 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.

### AAS – Emergency Medical Services Professions or Certificate – EMS Paramedic (Paramedic Students)

#### Additional Admission Requirements:

- Texas Department of State Health Services or National Registry EMT – Basic Certification
- Take the PSB exam that includes academic aptitude, spelling, reading comprehension, natural science and vocational adjustment.
- Take the AccuPlacer Assessment Test, McKinney campus, for EMS writing, reading and arithmetic.

### AAS – Emergency Medical Services Professions

60 credit hours

*A student who has the EMT – Basic certification has met the first three EMSP course requirements. <sup>1</sup>*

### PREREQUISITES

EMSP	1160	Clinical – Emergency Medical Technician (EMT Paramedic) – Basic <sup>1</sup>
EMSP	1371	Introduction to Emergency Medical Technician (EMT) <sup>1</sup>
EMSP	1501	Emergency Medical Technician <sup>1</sup>
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>

### FIRST YEAR

#### First Semester

<u>BIOL</u>	<u>2401</u>	<u>Anatomy and Physiology I</u> <sup>2</sup>
EMSP	1438	Introduction to Advanced Practice
EMSP	2206	Emergency Pharmacology
EMSP	1356	Patient Assessment and Airway Management
KINE	1100	Beginning Weight Training ( <a href="#">See Kinesiology Options</a> )

#### Second Semester

<u>BIOL</u>	<u>2402</u>	<u>Anatomy and Physiology II</u> <sup>2</sup>
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EMSP	1161	Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced I
EMSP	2444	Cardiology
EMSP	2534	Medical Emergencies

**Summer Semester**

EMSP	1162	Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced II
EMSP	1355	Trauma Management

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

EMSP	2160	Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced III
EMSP	2305	EMS Operations
EMSP	2330	Special Populations
<u>GEN ED</u>		<a href="#">Humanities/Fine Arts</a> course
<u>GEN ED</u>		<a href="#">Social/Behavioral Sciences</a> course

**Second Semester**

EMSP	2143	Assessment Based Management (Capstone)
EMSP	2267	Practicum – Emergency Medical Technician (EMT Paramedic)

1. A Student that has the EMT – Basic certification has met this requirement

2. No substitutions

**OSA – Emergency Medical Services Professions**

9 credit hours

A student who has the EMT – Basic certification has met these EMSP requirements.

EMSP	1160	Clinical – Emergency Medical Technician (EMT Paramedic) – Basic
EMSP	1371	Introduction to Emergency Medical Technician (EMT)
EMSP	1501	Emergency Medical Technician

**Certificate Level 1 – Advanced EMT**

25 credit hours

**PREREQUISITES**

A student who has the EMT – Basic certification has met the first three EMSP course requirements. <sup>1</sup>

EMSP	1160	Clinical – Emergency Medical Technician (EMT Paramedic) – Basic <sup>1</sup>
EMSP	1371	Introduction to Emergency Medical Technician (EMT) <sup>1</sup>
EMSP	1501	Emergency Medical Technician <sup>1</sup>

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

EMSP	1356	Patient Assessment and Airway Management
EMSP	1438	Introduction to Advanced Practice
EMSP	2206	Emergency Pharmacology

**Second Semester**

EMSP	1161	Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced I
EMSP	1355	Trauma Management
EMSP	2305	EMS Operations

**Certificate Level 1 – Paramedic**

42 credit hours

This certificate contains all the coursework in the Advanced EMT certificate plus seven (7) additional courses which will qualify the student for career advancement as a Paramedic.

**PREREQUISITES**

A student who has the EMT – Basic certification has met the first three EMSP course requirements. <sup>1</sup>

EMSP	1160	Clinical - Emergency Medical Technician (EMT Paramedic) – Basic <sup>1</sup>
EMSP	1371	Introduction to Emergency Medical Technician (EMT) <sup>1</sup>
EMSP	1501	Emergency Medical Technician <sup>1</sup>

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

EMSP	1356	Patient Assessment and Airway Management
EMSP	1438	Introduction to Advanced Practice
EMSP	2206	Emergency Pharmacology

**Second Semester**

EMSP	1161	Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced I
EMSP	1355	Trauma Management
EMSP	2305	EMS Operations

**Summer Semester**

EMSP	2444	Cardiology
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**SECOND YEAR****First Semester**

EMSP	1162	Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced II
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**Second Semester**

EMSP	2534	Medical Emergencies
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EMSP	2330	Special Populations
EMSP	2160	Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced III

#### Summer Semester

EMSP	2143	Assessment Based Management (Capstone)
EMSP	2267	Practicum – Emergency Medical Technician (EMT Paramedic)

1. A student that has the EMT – Basic certification has met this requirement.

### **FIRE ACADEMY / FIRE SCIENCE**

#### **Department Website:**

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

#### **Program Options:**

**AAS – Fire Science**

**OSA – Fire Officer Candidate**

**Certificate Level 1 – Basic Firefighter**

**Certificate Level 1 – Fire Officer**

There is nothing more regarding than being able to take pride in your work. As a graduate of Collin College's Fire Academy program, you will be ready when the alarm sounds, your instincts kick in and life goes from zero to 100 in a matter of seconds. You can be proud that you help others, responding to high-stress situations – saving lives and property.

#### **Fire Academy**

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 you for a career as a professional firefighter and includes Emergency Medical Technician (EMT) training for state certification. Many fire departments require applicants to complete basic firefighter training before they take a fire department entrance exam.

Collin College's Fire Academy meets the curriculum requirements for certification as a basic firefighter for the state of Texas and was developed to prepare students for a career as a professional firefighter. The program is offered on both full-time (one semester) and part-time (two semesters) schedules. Students are required to complete Emergency Medical technician (EMT-B) training either before or after completing fire training. Credits earned in the Fire Academy can be applied to the AAS – Basic Firefighter degree plan to help jumpstart a rewarding career in the fire service.

Firefighters with a well-balanced educational background will be better prepared to serve their communities. Collin College's Fire Science program is designed to give you the certifications and experience necessary for effective decision-making and leadership skills in the fire department. You will receive technical knowledge needed to combat the fire problems created by modern living and develop leadership skills required of a Fire Officer.

This certification program was developed to prepare you for a career as a professional fire officer and includes multiple state certifications often required by fire departments for promotion to leadership ranks.

#### **Fire Science**

Collin College's Fire Science program meets the curriculum requirements for several certifications including: Fire Instructor I, II; and Fire Officer I, II. The certification courses are offered on-line, while other courses are offered face-to-face for optimal skill practice and application. Credits earned in the Fire Officer certificate program can be applied to the AAS – Fire Officer Certification degree plan to meet promotional requirements in area fire departments.

Some courses require a permit for registration. Permits are granted by contacting the Fire Science Office at 972-548-6836.

Collin College's Fire Academy program is approved by the Texas Commission on Fire Commission, Certified Training Facilities.

#### **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 Accuplacer – Next Generation Reading test (minimum score – 250)



- Complete Accuplacer – Next Generation Arithmetic test (minimum score – 250)
- Complete WritePlacer test (Minimum score 4)
- 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 Office located at the Public Safety Training Center at 3600 Redbud Blvd, McKinney, Texas 75069 or at the Fire Science website: <http://www.collin.edu/firescience>.

### AAS – Fire Science

60 credit hours

*There are two focus options in this degree, you must select ONE focus option and complete the courses in that option.*

Focus Option 1: Basic Firefighter Certification (BFC)

Focus Option 2: Fire Officer Certification (FOC)

#### **FIRST YEAR**

##### **First Semester**

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>GOVT</u>	<u>2306</u>	<u>Texas Government (Texas constitution and topics)<sup>1</sup></u>
<u>HUMA</u>	<u>1301</u>	<u>Introduction to Humanities</u> (see <a href="#">Humanities/Fine Arts</a> options)
<u>KINE</u>	<u>1100</u>	<u>Beginning Weight Training</u>
<u>MATH</u>	<u>1332</u>	<u>Contemporary Mathematics (Quantitative Reasoning)</u> (See <a href="#">Mathematics options</a> )
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u> (See <a href="#">Speech</a> Options)

##### **Second Semester**

Option 1: Basic Firefighter Certification  
(Select 12 Credit Hours from Technical Education Courses)

Option 2: Fire Officer Certification  
(Select 15 Credit Hours from Technical Education Courses)

##### **Third Semester**

Option 1: Basic Firefighter Certification		
EMSP	1160	Clinical - Emergency Medical Technician (EMT Paramedic) - Basic <sup>2</sup>
EMSP	1371	Introduction to Emergency Medical Technician (EMT) <sup>2</sup>
EMSP	1501	Emergency Medical Technician <sup>2</sup>

Option 2: Fire Officer Certification

(Select 12 Credit Hours from Technical Education Courses not already taken)

#### **SECOND YEAR**

##### **Fourth Semester**

Option 1: Basic Firefighter Certification  
(12 Credit Hours from Basic Firefighter Certification not already taken)

Option 2: Fire Officer Certification  
(9 Credit Hours from Fire Officer Certification not already taken)

##### **Fifth Semester**

Option 1: Basic Firefighter Certification  
(11 Credit Hours from Basic Firefighter Certification not already taken)

Option 2: Fire Officer Certification  
(8 Credit Hours from Fire Officer Certification not already taken)

#### **TECHNICAL EDUCATION COURSES FOR BFC AND FOC**

FIRT	1301	Fundamentals of Fire Protection
FIRT	1315	Hazardous Materials I <sup>3</sup>
FIRT	1327	Building Construction in the Fire Service
FIRT	1338	Fire Protection Systems <sup>4</sup>
FIRT	1349	Fire Administration II <sup>5</sup>
FIRS	2344	Driver/Operator - Pumper <sup>6</sup>
FIRT	1391	Special Topics in Fire Protection and Safety Technology/Technician: Haz-Mat Technical Response <sup>7</sup>
FIRT	1392	Special Topics in Fire Services Administration: Officer Leadership <sup>8</sup>
FIRS	1491	Special Topics in Fire Science/Firefighting: Rope Rescue <sup>9</sup>

#### **OPTION 1: BASIC FIREFIGHTER CERTIFICATION**

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
FIRS	1433	Firefighter Certification VII (Capstone)

#### **OPTION 2: FIRE OFFICER CERTIFICATION**

FIRT	1442	Fire Officer I <sup>10</sup>
FIRT	2305	Fire Instructor I <sup>11</sup>
FIRT	1443	Fire Officer II <sup>12</sup>
FIRT	2307	Fire Instructor II <sup>13</sup>
FIRT	2309	Firefighting Strategies and Tactics I (Capstone)

*1. No Substitutions*

2. A student that has met the EMT-Basic certification has met the requirements for this course.
3. A student with TCFP Basic Firefighter certification has met the requirements for this course.
4. A student with TCFP Fire Inspector I certification has met the requirements for this course.
5. A student with TCFP Fire Officer III certification has met the requirements for this course.
6. A student with TCFP Driver/Operator-Pumper certification has met the requirements for this course.
7. A student with TCFP Haz-Mat Technician certification or TCFP Incident Safety Officer and TCFP Haz-Mat Incident Commander certification has met the requirements for this course.
8. A student with TCFP Fire Officer IV certification has met the requirements for this course.
9. A student with Ropes Rescue I and II certificates of completion, or TCFP Fire Investigator certification has met the requirements for this course.
10. A student with TCFP Fire Officer I certification has met the requirements for this course.
11. A student with TCFP Fire Instructor I certification has met the requirements for this course.
12. A student with TCFP Fire Officer II certification has met the requirements for this course.
13. A student with TCFP Fire Instructor II certification has met the requirements for this course.

### **OSA – Fire Officer Candidate**

10 credit hours

FIRT	1442	Fire Officer I
FIRT	2305	Fire Instructor I
FIRT	2309	Firefighting Strategies and Tactics I

### **Certificate Level 1 – Basic Firefighter**

32 credit hours

#### **First Semester**

EMSP	1160	Clinical – Emergency Medical Technician (EMT Paramedic) – Basic <sup>1</sup>
EMSP	1371	Introduction to Emergency Medical Technician (EMT) <sup>1</sup>
EMSP	1501	Emergency Medical Technician <sup>1</sup>
FIRS	1301	Firefighter Certification I
FIRS	1313	Firefighter Certification III
FIRS	1407	Firefighter Certification II

#### **Second Semester**

FIRS	1319	Firefighter Certification IV
FIRS	1323	Firefighter Certification V
FIRS	1329	Firefighter Certification VI
FIRS	1433	Firefighter Certification VII (Capstone)

1. A student that has the EMT – Basic certificate has met this requirement.

### **Certificate Level 1 – Fire Officer**

17 credit hours

#### **First Semester**

FIRT	1442	Fire Officer I
FIRT	2305	Fire Instructor I

#### **Second Semester**

FIRT	1443	Fire Officer II
FIRT	2307	Fire Instructor II
FIRT	2309	Firefighting Strategies and Tactics I (Capstone)

### **GEOSPATIAL INFORMATION SCIENCE (GIS)**

#### **Department Website:**

<https://www.collin.edu/department/etcs/GIS/Geospatial%20Information%20Systems.html>

#### **Program Options:**

#### **AAS – Geospatial Information Science (GIS)**

#### **Certificate Level 1 – Geospatial Information Science (GIS)**

Every moment of every day, information is being logged about how we live and the world around us. Geospatial Information Science (GIS) utilizes hardware, software and data to analyze and display location-based information. Learn how to harness that data to visualize and solve spatial problems and to present information in a way that is easy to understand and interpret. GIS specialty fields include; remote sensing, mapping, programming, geospatial intelligence, feature\image analysis, geographic information systems (GIS), location positioning and related areas.

The Geospatial Information Science (GIS) Associate of Applied Science and certificate program are designed to prepare students for careers in the growing fields of GIS. This includes positions in numerous industries such as business, utilities, natural resources, real estate, transportation, government, telecommunication, education and public safety.

- Associate of Applied Science Geospatial Information Systems (GIS) - (60 credit hours)
- Certificate Level 1 - (17 credit hours)

Collin College's GIS certificate can open doors for students in the workplace while laying the groundwork for continued study. All courses taken for the GIS certificate also apply to the Associate of Applied Science (AAS) degree. An AAS degree in GIS from Collin College prepares you to enter the job market or pursue a bachelor's degree.

**AAS – Geospatial Information Science (GIS)**

60 credit hours

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

COSC	1315	Introduction to Computer Programming <sup>1</sup>
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
GISC	1411	Introduction to Geographic Information Systems (GIS)
GISC	2402	Geographic Information Systems (GIS) Design with Raster Analysis <sup>2</sup>

**Second Semester**

DFTG	1309	Basic Computer-Aided Drafting
GISC	2335	Programming for Geographic Information Systems (GIS) <sup>3,4</sup>
GISC	2420	Intermediate Geographic Information Systems (GIS)
ITSE	1311	Beginning Web Programming
<u>GEN ED</u>		<u>Mathematics/Natural Sciences</u> course

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

ENGL	2311	Technical and Business Writing
GISC	1301	Cartography and Geography in Geographical Information Systems (GIS) and Global Positioning Systems <sup>2</sup>
ITSW	1304	Introduction to Spreadsheets – Excel
ITSW	1307	Introduction to Database – Access
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

**Second Semester**

DFTG	2321	Topographical Drafting <sup>3</sup>
GISC	2172	Geospatial Information Systems Portfolio Development
GISC	2231	Advanced Problems in Geographic Information Systems (GIS) (Capstone) <sup>5</sup>
<u>GEN ED</u>		<u>Speech</u> course
<u>GEN ED</u>		<u>Social/Behavioral Sciences</u> course
ELECTIVE	*	

\* Elective (3 credit hours): BIOL 2406, ENVR 1401, any GEOG, or any GEOL

1. May substitute COSC 1436, ITSE 1332, or ITSE 2302
2. Fall Only. This course is offered in the Fall semester only.
3. Spring Only. This course is offered in the Spring semester only.
4. May substitute ITSE 1359
5. May substitute GISC 2281

**Certificate Level 1 – Geospatial Information Science (GIS)**

17 credit hours

**First Semester**

GISC	1411	Introduction to Geographic Information Systems (GIS)
GISC	2402	Geographic Information Systems (GIS) Design with Raster Analysis <sup>1</sup>

**Second Semester**

GISC	2335	Programming for Geographic Information Systems (GIS) <sup>2,3</sup>
GISC	2420	Intermediate Geographic Information Systems (GIS)

**Third Semester**

GISC	2231	Advanced Problems in Geographic Information Systems (GIS) (Capstone) <sup>4</sup>
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1. Fall Only. This course is offered in the Fall semester only.

2. Spring Only. This course is offered in the Spring semester only.

3. May substitute ITSE 1359

4. May substitute GISC 2281

**HEALTH INFORMATION MANAGEMENT**

Also see Health Information Management/Medical Coding and Billing

**Department Website:**

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

**Program Option:**

**AAS – Health Information Management  
Certificate Level 2 – Computer Applications for Data  
Forensics and Informatics  
Certificate Level 2 – Health Information Foundations  
for Data Forensics and Informatics**

A career in Health Information Management (HIM) will put you at the center of a rapidly growing field that thrives on data. As an HIM professional, you will collect and protect medical information, including patient records and health data. You can help researchers track disease outbreaks, monitor potential health trends and provide up-to-the-minute health information to doctors, hospitals, insurance companies and patients.

All HIM classes are conducted online. A clinical component must also be completed in a Texas health care facility.

**Licensure Notice:** Students who have been involved with the criminal system, please be advised that your background could keep you from being licensed by the State of Texas. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

The Associate of Applied Science (AAS) in Health Information Management (HIM) at Collin College is a 60 credit hour degree program preparing students for a career in health information management, as a health information professional. The program is accredited by the Commission on Accreditation for Health Informatics and Information Management (CAHIIM) education. Curriculum is based on the AHIMA Foundation's curricular competencies for the Registered Health Information Technician (RHIT) credential and is approved by the Texas Higher Education. Upon successful completion of the coursework and the credential exam, facilitated by the American Health Information Management Association (AHIMA), the graduate may use the designation RHIT behind their professional signature.

The Collin College Health Information Management program has a partnership with the College of St. Scholastica, the nation's oldest health information management program. Collin College HIM graduates have the opportunity to continue their HIM Bachelor of Science (BS) studies online with St. Scholastica and sit for the RHIA certification. This academic agreement maximizes the transfer of Collin College credit and allows Collin College students to complete some BS courses at Collin College with Collin College's lower tuition costs. For more information, see your Collin College Advisor.

### ACCREDITATION

The AAS in Health Information Management 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)

### SPECIAL ADMISSION REQUIREMENTS

Admission to the AAS – HIM program is selective and based on a point system. Admission is limited to 25 students per semester. Application deadlines are the 2nd Friday in November and 2nd Friday in May. The application is found on the HIM program website: [www.collin.edu/him](http://www.collin.edu/him) and should be submitted to the department office via email, fax, or mail by the appropriate deadline.

Eligibility requirements for application to AAS-HIM program:

- Complete Collin College Admission requirements
- Complete Collin College reading, writing and mathematics assessments, placing at the College Level (TSI Testing).
- Overall GPA of 2.5. Please note that a grade of "C" or better must be earned in all HIM specific courses including HITT 1305, and BIOL 2404.
- Successful completion of a 60% or higher on the Test of Essential Academic Skills (TEAS), prior to Application Deadline. Students scoring lower

than 60% on the TEAS exam may be admitted if space is available once they have successfully completed ENGL 1301, BIOL 2404, and MATH 1342 with a grade of "C" or better. Registration details on the department webpage [www.collin.edu/him](http://www.collin.edu/him)

- Complete HIM packet. A complete HIM packet includes:
  - Completed HIM Application:
  - Consent for background check
  - Consent for drug screening
  - Immunization documentation – List of required immunizations are on the HIM webpage Note: Hepatitis B is typically a 7-month process. The TB screen and flu vaccine have a 12-month expiration
  - Signed Functional Abilities/Core Performance Standards for Health Information Management Program - Clinical Expectations. 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.
  - A 500-word essay explaining why you have chosen to become a Health Information professional.
  - Two letters of reference from employers or teachers (not family or friends) that can attest to your professionalism. Letters should be emailed to the Program Director.
- After Admission
- Earn a grade of "C" or better in all major course work and maintain a 2.5 GPA to continue in the HIM program.
- All Clinical requirements may be found on the webpage at [www.collin.edu/him](http://www.collin.edu/him).

### AAS – Health Information Management

60 credit hours

#### PREREQUISITES

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
HITT	1305	Medical Terminology I
HITT	2430	Pathophysiology and Pharmacology
<u>PSYC</u>	<u>2301</u>	<u>General Psychology</u>
		(See <a href="#">Social/Behavioral Sciences</a> options)

#### FIRST YEAR

##### First Semester

<u>BIOL</u>	<u>2404</u>	<u>Human Anatomy and Physiology Basic</u> <sup>1</sup>
<u>HUMA</u>	<u>1301</u>	<u>Introduction to Humanities I</u>
		(See <a href="#">Humanities/Fine Arts</a> options)
HITT	1301	Health Data Content and Structure
HITT	1311	Health Information Systems
ITSW	1304	Introduction to Spreadsheets - Excel

**Second Semester**

HITT	1353	Legal and Ethical Aspects of Health Information
HITT	2435	Coding and Reimbursement Methodologies
ITSW	1307	Introduction to Database - Access
<u>MATH</u>	<u>1342</u>	<u>Elementary Statistical Methods</u>

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

HITT	2339	Health Information Organization and Supervision
HITT	2346	Advanced Medical Coding
HITT	2443	Quality Assessment and Performance Improvement
ITSE	2309	Database Programming – SQL

**Second Semester**

HITT	2272	Portfolio Development <sup>2</sup>
HITT	2361	Clinical - Health Information / Medical Records Technology/Technician (Capstone)

1. Substitutions may be available on a case-by-case basis. Please see Director for information.
2. May substitute ITSW 2272

**Certificate Level 2 – Computer Applications for Data Forensics and Informatics**

16 credit hours

*Students must be TSI complete.*

(Designed for the Health Information Management person and others interested in developing skills to assist with database management, queries and reporting)  
(Shares the 3 courses in the computer systems OSA-computer Application)

**First Semester**

MATH	1342	Elementary Statistical Methods
ITSE	2309	Database Programming-SQL
ITSW	1304	Introduction to Spreadsheets – Excel
ITSW	1307	Introduction to Database – Access
ITSW	2472	Portfolio Development (Capstone)

**Certificate Level 2 – Health Information Foundations for Data Forensics and Informatics**

18 credit hours

*Students must be TSI complete.*

(Designed for the IT person interested in moving into Health Information Management and Reporting)

**First Semester**

HITT	1301	Health Data Content and Structure
HITT	1305	Medical Terminology I
HITT	1311	Health Information Systems
HITT	2435	Coding and Reimbursement Methodologies

**Second Semester**

MATH	1342	Elementary Statistical Methods
HITT	2272	Portfolio Development (Capstone)

**HEALTH INFORMATION MANAGEMENT / MEDICAL CODING AND BILLING**

Also see Health Information Management

**Department Website:**<http://www.collin.edu/him>**Program Options:****Certificate Level 1 – Medical Coding and Billing**

Students completing the Medical Coding Billing Certificate are better prepared for coding credentialing exams such as AHIMA's Certified Coding Associate (CCA) exam and the American Academy of Professional Coders (AAPC) Certified Professional Coder (CPC®) exam.

All courses in the Medical Coding Billing Certificate are included in the AAS-HIM Degree. Students completing the Medical Coding Billing Certificate may choose to continue their studies and complete the AAS-HIM Degree and sit for the Registered Health Information Technician (RHIT) credential.

The Medical Coding and Billing Certificate is a 27 credit hour on-line program that will prepare the student for the workforce as a medical coder/biller. The curriculum is based on the American Health Information Management Association's (AHIMA) competencies. Students planning to transfer to a college or university should check with Collin College academic advisors. Also, check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

**Certificate Level 1 – Medical Coding and Billing**

27 credit hours

**PREREQUISITES**

BIOL	2404	Human Anatomy and Physiology Basic
HITT	1305	Medical Terminology I
HITT	2430	Pathophysiology and Pharmacology

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

HITT	1301	Health Data Content and Structure
HITT	1311	Health Information Systems



HITT 2435 Coding and Reimbursement Methodologies

### Second Semester

HITT 1353 Legal and Ethical Aspects of Health Information  
HITT 2346 Advanced Medical Coding (Capstone)

## HEALTH PROFESSIONS

### Department Website:

<http://www.collin.edu/departments/healthprofessions/>

### Program Options:

#### AAS – Health Professions

- *Certified Nurse Aide (CNA) Track*
- *Electrocardiograph Technician (EKG) Track*
- *Emergency Medical Technician (EMT) Track*
- *Patient Care Technician (PCT) Track*
- *Phlebotomy Technician (PHLEB) Track*

#### OSA – Health Professions

- *Certified Nurse Aide (CNA) Track*
- *Electrocardiograph Technician (EKG) Track*
- *Emergency Medical Technician (EMT) Track*
- *Patient Care Technician (PCT) Track*
- *Phlebotomy Technician (PHLEB) Track*

#### Certificate Level 1 – Health Professions

- *Certified Nurse Aide (CNA) Track*
- *Electrocardiograph Technician (EKG) Track*
- *Emergency Medical Technician (EMT) Track*
- *Patient Care Technician (PCT) Track*
- *Phlebotomy Technician (PHLEB) Track*

Collin College's Health Professions curriculum provides you with the training and knowledge you need for a rewarding career as a Certified Nurse Aide (CNA), Electrocardiography (EKG) Technician, Patient Care Technician (PCT), Emergency Medical Technician (EMT) or Phlebotomy Technician (PHLEB). The five career tracks allow you to choose the specialization that best fits your career goals. Each track offers in-depth education with hands-on experience, thanks to experienced faculty that have worked in the healthcare field and valuable clinical partnerships with local hospitals, facilities, and clinics.

The variety of options in Health Professions also allows you to build your knowledge and skills as you progress through the different levels of educational awards. You can earn an Occupational Skills Award (OSA) and a Level 1 Certificate on your way to an Associate of Applied Science in Health Professions, providing you with the chance to work in your field of interest as you continue your education.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your Program Director and check with your licensing/certifying entity, if any, to determine your status.

The curriculum contains both transfer and workforce courses. The workforce courses are mainly offered at the Collin College Technical Campus and the Wylie Campus. For additional information, please contact the Health Professions Director at 214-491-6253.

### 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 forms. 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.

Prior to enrolling in any clinical courses, students must complete all immunizations required by the Texas Department of State Health Services (TDSHS)\*. All required workforce courses require a minimum grade of 75% to continue in the program.

*\* 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 Coordinator. In such cases, the applicant must sign a declination form. All immunizations must be complete before assignment to clinical training.*

**Health Insurance** - All Health Profession students are required to show proof of health insurance prior to starting clinical rotations each semester.

**CPR** - Requires current American Heart Association Basic Life Support CPR certification.

### AAS – Health Professions - Certified Nurse Aide (CNA) Track

60 credit hours

#### FIRST YEAR

##### First Semester

BIOL 2404 Human Anatomy and Physiology Basic <sup>1</sup>  
ENGL 1301 Composition I



GOVT	2305	Federal Government (Federal constitution and topics) <sup>2</sup>
HIST	1301	United States History I
HITT	1305	Medical Terminology I

**Second Semester**

ENGL	1302	Composition II
HPRS	1271	Introduction to the Healthcare System <sup>3</sup>
HPRS	2232	Health Care Communications
<u>PSYC</u>	<u>2301</u>	<u>General Psychology</u> <sup>4</sup>
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u> (See <a href="#">Speech Options</a> )

**Summer Semester**

<u>MATH</u>	<u>1342</u>	<u>Elementary Statistical Methods</u> (See <a href="#">Mathematics options</a> )
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**SECOND YEAR****First Semester**

HPRS	1303	End of Life Issues
HPRS	2301	Pathophysiology
HPRS	2321	Medical Law and Ethics for Health Professionals
HITT	2328	Introduction to Public Health

**Second Semester**

HPRS	1310	Introduction to Pharmacology
MDCA	1321	Administrative Procedures
NURA	1160	Clinical – Nursing Aide and Patient Care Assistant
NURA	1301	Nurse Aide for Health Care
<u>GEN ED</u>		<a href="#">Humanities/Fine Arts</a> course

**Summer Semester**

HPRS	2374	Trends in Healthcare (Capstone)
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1. May substitute BIOL 1406
2. May substitute ECON 1301, ECON 2301, or ECON 2302
3. May substitute HPRS 1204
4. May substitute ANTH 2302, ANTH 2346, ANTH 2351, HIST 1302, HIST 2301, SOCI 1301, or SOCI 1306

**AAS – Health Professions - Electrocardiograph Technician (EKG) Track**

60 credit hours

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

BIOL	2404	Human Anatomy and Physiology Basic <sup>1</sup>
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
HIST	1301	United States History I
HITT	1305	Medical Terminology I

**Second Semester**

HPRS	1271	Introduction to the Healthcare System <sup>2</sup>
HPRS	2301	Pathophysiology
MDCA	1321	Administrative Procedures

<u>PSYC</u>	<u>2301</u>	<u>General Psychology</u> <sup>3</sup>
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**Summer Semester**

HITT	2328	Introduction to Public Health
<u>MATH</u>	<u>1342</u>	<u>Elementary Statistical Methods</u> (See <a href="#">Mathematics options</a> )

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

DSAE	1340	Diagnostic Electrocardiography
DSAE	2303	Cardiovascular Concepts
GOVT	2305	Federal Government (Federal constitution and topics) <sup>4</sup>
HPRS	2321	Medical Law and Ethics for Health Professionals

**Second Semester**

DSAE	1315	Principles of Adult Echocardiography
HPRS	1160	Clinical – Health Services/Allied Health/Health Sciences, General
HPRS	1303	End of Life Issues
HPRS	2232	Health Care Communications
<u>GEN ED</u>		<a href="#">Humanities/Fine Arts</a> course

**Summer Semester**

HPRS	1310	Introduction to Pharmacology
HPRS	2374	Trends in Healthcare (Capstone)

1. May substitute BIOL 1406
2. May substitute HPRS 1204
3. May Substitute ANTH 2302, ANTH 2346, ANTH 2351, HIST 1302, HIST 2301, SOCI 1301 or SOCI 1306
4. May substitute ECON 1301, ECON 2301, ECON 2302

**AAS – Health Professions - Emergency Medical Technician (EMT) Track**

60 credit hours

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

BIOL	2404	Human Anatomy and Physiology Basic <sup>1</sup>
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
GOVT	2305	Federal Government (Federal constitution and topics) <sup>2</sup>
HIST	1301	United States History I
HITT	1305	Medical Terminology I

**Second Semester**

HPRS	1271	Introduction to the Healthcare System <sup>3</sup>
HPRS	2232	Health Care Communications
HPRS	2301	Pathophysiology
<u>PSYC</u>	<u>2301</u>	<u>General Psychology</u> <sup>4</sup>
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u> (See <a href="#">Speech Options</a> )

**Summer Semester**

MATH 1342 Elementary Statistical Methods  
(See [Mathematics options](#))

## SECOND YEAR

### First Semester

HPRS 1191 Special Topics in Health Professions  
and Related Sciences, Other  
HPRS 1303 End of Life Issues  
HPRS 1310 Introduction to Pharmacology  
MDCA 1321 Administrative Procedures  
GEN ED [Humanities/Fine Arts](#) course

### Second Semester

EMSP 1160 Clinical – Emergency Medical  
Technician (EMT Paramedic) – Basic  
EMSP 1371 Introduction to Emergency Medical  
Technician (EMT)  
EMSP 1501 Emergency Medical Technician  
HPRS 2321 Medical Law and Ethics for Health  
Professionals

### Summer Semester

HPRS 2374 Trends in Healthcare (Capstone)

1. May substitute BIOL 1406
2. May substitute ECON 1301, ECON 2301, ECON 2302
3. May substitute HPRS 1204
4. May substitute ANTH 2302, ANTH 2346, ANTH 2351,  
HIST 1302, HIST 2301, SOCI 1301 or SOCI 1306

## AAS – Health Professions - Patient Care Technician (PCT) Track

60 credit hours

### FIRST YEAR

#### First Semester

BIOL 2404 Human Anatomy and Physiology Basic <sup>1</sup>  
ENGL 1301 Composition I  
GOVT 2305 Federal Government (Federal  
constitution and topics) <sup>2</sup>  
HIST 1301 United States History I  
HITT 1305 Medical Terminology I

#### Second Semester

HPRS 1271 Introduction to the Healthcare System <sup>3</sup>  
MDCA 1321 Administrative Procedures  
PSYC 2301 General Psychology <sup>4</sup>  
SPCH 1311 Introduction to Speech Communication  
(See [Speech](#) Options)

### Summer Semester

HPRS 1303 End of Life Issues  
PLAB 1323 Phlebotomy

## SECOND YEAR

### First Semester

DSAE 1340 Diagnostic Electrocardiography

DSAE 2303 Cardiovascular Concepts  
HPRS 2321 Medical Law and Ethics for Health  
Professionals  
HPRS 2301 Pathophysiology

### Second Semester

DSAE 1315 Principles of Adult Echocardiography  
HPRS 1160 Clinical – Health Services/Allied  
Health/Health Sciences, General  
MATH 1342  
(See [Mathematics options](#))  
GEN ED [Humanities/Fine Arts](#) course

### Summer Semester

HPRS 1191 Special Topics in Health Professions  
and Related Sciences, Other  
NURA 1160 Clinical – Nursing Aide and Patient  
Care Assistant (Capstone)  
NURA 1301 Nurse Aide for Health Care

1. May substitute BIOL 1406
2. May substitute ECON 1301, ECON 2301, or ECON 2302
3. May substitute HPRS 1204
4. May substitute ANTH 2302, ANTH 2346, ANTH 2351,  
HIST 1302, HIST 2301, SOCI 1301 or SOCI 1306

## AAS – Health Professions - Phlebotomy Technician (PHLEB) Track

60 credit hours

### FIRST YEAR

#### First Semester

BIOL 2404 Human Anatomy and Physiology Basic <sup>1</sup>  
ENGL 1301 Composition I  
GOVT 2305 Federal Government (Federal  
constitution and topics) <sup>2</sup>  
HIST 1301 United States History I  
HITT 1305 Medical Terminology I

#### Second Semester

ENGL 1302 Composition II  
HPRS 1271 Introduction to the Healthcare System <sup>3</sup>  
HPRS 2232 Health Care Communications  
PSYC 2301 General Psychology <sup>4</sup>  
SPCH 1311 Introduction to Speech Communication  
(See [Speech](#) Options)

### Summer Semester

MATH 1342 Elementary Statistical Methods  
(See [Mathematics options](#))

## SECOND YEAR

### First Semester

HPRS 2321 Medical Law and Ethics for Health  
Professionals  
HITT 2328 Introduction to Public Health  
HPRS 1303 End of Life Issues

HPRS 2301 Pathophysiology

### Second Semester

MDCA 1321 Administrative Procedures  
 HPRS 1310 Introduction to Pharmacology  
 PLAB 1323 Phlebotomy  
 PLAB 1160 Clinical – Phlebotomy  
GEN ED [Humanities/Fine Arts](#) course

### Summer Semester

HPRS 2374 Trends in Healthcare (Capstone)

1. May substitute BIOL 1406
2. May substitute ECON 1301, ECON 2301, or ECON 2302
3. May substitute HPRS 1204
4. May substitute ANTH 2302, ANTH 2346, ANTH 2351, HIST 1302, HIST 2301, SOCI 1301 or SOCI 1306

### Occupational Skills Awards

Courses used in these awards, except HITT 1305 and HPRS 1271, are offered at the McKinney Campus and through dual credit at select high schools. Please visit the website

<http://www.collin.edu/department/healthprofessions/> for additional information.

### OSA – Health Professions - Certified Nurse Aide (CNA) Track

12 credit hours

HITT 1305 Medical Terminology I  
 HPRS 1271 Introduction to the Healthcare System <sup>1</sup>  
 HPRS 2301 Pathophysiology  
 NURA 1160 Clinical - Nursing Aide and Patient Care Assistant  
 NURA 1301 Nurse Aide for Health Care

1. May substitute HPRS 1204

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

### OSA – Health Professions - Electrocardiograph Technician (EKG) Track

13 credit hours

DSAE 1315 Principles of Adult Echocardiography  
 DSAE 1340 Diagnostic Electrocardiography  
 DSAE 2303 Cardiovascular Concepts  
 HITT 1305 Medical Terminology I  
 HPRS 1160 Clinical – Health Services/Allied Health/Health Sciences, General

### OSA – Health Professions - Emergency Medical Technician (EMT) Track

14 credit hours

HITT 1305 Medical Terminology I  
 HPRS 1271 Introduction to the Healthcare System <sup>1</sup>  
 EMSP 1160 Clinical - Emergency Medical Technician (EMT Paramedic) - Basic  
 EMSP 1371 Introduction to Emergency Medical Technician (EMT)  
 EMSP 1501 Emergency Medical Technician

1. May substitute HPRS 1204

### OSA – Health Professions - Patient Care Technician (PCT) Track

This award requires successful CNA, PHLEB and EKG course completion.

14 credit hours

DSAE 1340 Diagnostic Electrocardiography  
 DSAE 2303 Cardiovascular Concepts  
 HPRS 1160 Clinical – Health Services/Allied Health/Health Sciences, General  
 NURA 1160 Clinical - Nursing Aide and Patient Care Assistant  
 NURA 1301 Nurse Aide for Health Care  
 PLAB 1323 Phlebotomy

Note: This award requires permission to register for courses. Please contact Dr. Westcott, [jwestcott@collin.edu](mailto:jwestcott@collin.edu), for more information.

### OSA – Health Professions - Phlebotomy Technician (PHLEB) Track

12 credit hours

HITT 1305 Medical Terminology I  
 HPRS 1271 Introduction to the Healthcare System <sup>1</sup>  
 HPRS 2301 Pathophysiology  
 PLAB 1160 Clinical - Phlebotomy  
 PLAB 1323 Phlebotomy

1. May substitute HPRS 1204.

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

### Certificate Level 1 – Health Professions - Certified Nurse Aide (CNA) Track

17 credit hours

#### FIRST YEAR

##### First Semester

HPRS 1271 Introduction to the Healthcare System <sup>1</sup>  
 HPRS 2232 Health Care Communications  
 HITT 1305 Medical Terminology I

##### Second Semester

HPRS	1303	End of Life Issues
HPRS	2301	Pathophysiology
NURA	1160	Clinical - Nursing Aide and Patient Care Assistant (Capstone)
NURA	1301	Nurse Aide for Health Care

1. May substitute HPRS 1204

### Certificate Level 1 – Health Professions - Electrocardiograph Technician (EKG) Track

20 credit hours

#### **FIRST YEAR**

##### **First Semester**

HITT	1305	Medical Terminology I
HPRS	1271	Introduction to the Healthcare System <sup>1</sup>
HPRS	2232	Health Care Communications

##### **Second Semester**

DSAE	1340	Diagnostic Electrocardiography
DSAE	2303	Cardiovascular Concepts
HPRS	2301	Pathophysiology

##### **Summer Semester**

DSAE	1315	Principles of Adult Echocardiography
HPRS	1160	Clinical – Health Services/Allied Health/Health Sciences, General (Capstone)

1. May substitute HPRS 1204

### Certificate Level 1 – Health Professions – Emergency Medical Technician (EMT) Track

22 credit hours

#### **FIRST YEAR**

##### **First Semester**

HPRS	1271	Introduction to the Healthcare System <sup>1</sup>
HPRS	2232	Health Care Communications
HPRS	1303	End of Life Issues
HITT	1305	Medical Terminology I

##### **Second Semester**

EMSP	1160	Clinical - Emergency Medical Technician (EMT Paramedic) - Basic (Capstone)
EMSP	1371	Introduction to Emergency Medical Technician (EMT)
EMSP	1501	Emergency Medical Technician (EMT)
HPRS	2301	Pathophysiology

1. May substitute HPRS 1204

### Certificate Level 1 – Health Professions - Patient Care Technician (PCT) Track

26 credit hours

#### **FIRST YEAR**

##### **First Semester**

HITT	1305	Medical Terminology I
HPRS	1271	Introduction to the Healthcare System <sup>1</sup>
NURA	1301	Nurse Aide for Health Care

##### **Second Semester**

DSAE	1340	Diagnostic Electrocardiography
DSAE	1315	Principles of Adult Echocardiography
DSAE	2303	Cardiovascular Concepts
HPRS	1160	Clinical – Health Services/Allied Health/Health Sciences, General

##### **Summer Semester**

HPRS	1303	End of Life Issues
HPRS	1191	Special Topics in Health Professions and Related Sciences, Other
NURA	1160	Clinical - Nursing Aide and Patient Care Assistant (Capstone)
PLAB	1323	Phlebotomy

1. May substitute HPRS 1204

### Certificate Level 1 – Health Professions - Phlebotomy Technician (PHLEB) Track

17 credit hours

#### **FIRST YEAR**

##### **First Semester**

HITT	1305	Medical Terminology I
HPRS	1271	Introduction to the Healthcare System <sup>1</sup>
HPRS	2232	Health Care Communications
ELECTIVE	*	

##### **Second Semester**

HPRS	2301	Pathophysiology
PLAB	1160	Clinical - Phlebotomy (Capstone)
PLAB	1323	Phlebotomy

\* Electives (3 credit hours)

HITT 2328, HPRS 1303, HPRS 1310, or HPRS 2321

1. May substitute HPRS 1204

## **HOSPITALITY AND FOOD SERVICE MANAGEMENT**

### **Department Website:**

<http://www.collin.edu/department/ihce/index.html>

### **Program Options:**

#### **AAS – Hospitality and Food Service Management**

- Hotel / Restaurant Management Track
- Meetings and Event Management Track

#### **Certificate Level 1 – Foundations of Restaurant Operations**

#### **Certificate Level 1 – Foundations of Meetings and Event Management**

**Certificate Level 1 – Foundations of Hotel Operations****Certificate Level 2 – Hospitality and Foodservice Management****Certificate Level 2 – Meetings and Event Management**

What is hospitality and foodservice management?

Hospitality and foodservice management industry is a high-growth and fast-paced industry with domestic and international opportunities in management sectors including lodging management, food and beverage management, and meeting and event management.

Why hospitality and tourism management?

Collin College has a tradition of preparing individuals for supervisory and management roles in the global hospitality industry. Collin College offers a business-focused curriculum, hands-on learning, and a cooperative work experience component. Our students learn with a supportive faculty and industry professionals who have diverse industry experience. Students enjoy opportunities to connect with industry professionals through industry events.

Part of the Collin College's Institute of Hospitality and Culinary Education (IHCE), classes are taught by industry professionals who emphasize problem-solving, creativity and industry involvement, in addition to practical on-the-job experience. By the time you completed an Associate of Applied Science degree from Collin, you will have achieved more than 300 hours of work experience directly related to your chosen field. The program also offers certificates, so you can get a quicker return on your educational investment as you build toward an AAS degree.

**ACCREDITATION**

The Hospitality and Foodservice Management program is fully accredited by the Accreditation Commission on Programs in Hospitality Administration (ACPHA).  
<http://www.acpha-cahm.org/>

**TRANSFER**

Articulation agreements are being developed with nationally recognized hospitality programs such as the Texas Tech University – Restaurant, Hotel & Institutional Management, Business & Hotel Management School, Lucerne – Switzerland, and the Conrad N. Hilton School of Hotel & Restaurant Management – University of Houston.

Students planning to transfer to a college or university should check with a Collin College academic advisor. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

**AAS – Hospitality and Food Service Management – Hotel / Restaurant Management Track**

60 credit hours

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

CHEF 1305	Sanitation and Safety <sup>1,2</sup>
ENGL 1301	<u>Composition I</u>
HAMG 1321	Introduction to Hospitality Industry
HAMG 1340	Hospitality Legal Issues
TRVM 2301	Introduction to Convention/Meeting Management

**Second Semester**

HAMG 1313	Front Office Management
HAMG 1324	Hospitality Human Resources Management
HAMG 2337	Hospitality Facilities Management
GEN ED	<u>Humanities/Fine Arts</u> course
RSTO 1325	Purchasing for Hospitality Operations

**Third Semester**

MATH 1332	<u>Contemporary Mathematics (Quantitative Reasoning)</u> (See <u>Mathematics</u> options)
GEN ED	<u>Social/Behavioral Sciences</u> course

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

HAMG 2301	Principles of Food and Beverage Operations
HAMG 2307	Hospitality Marketing and Sales
HAMG 2380	Cooperative Education – Hospitality Administration/Management, General
SPCH 1321	<u>Business and Professional Communication</u> (See <u>Speech</u> Options)

**Second Semester**

HAMG 2305	Hospitality Management and Leadership (Capstone)
HAMG 2332	Hospitality Financial Management
RSTO 2307	Catering
ELECTIVE *	

*\*Elective: (3 Credit Hours):*

*CHEF 1301, CHEF 1364, HAMG 1366, TRVM 1327, TRVM 1366, TRVM 2341, TRVM 2355, RSTO 1301, RSTO 1364, PSTR 1301 or PSTR 1364*

- 1. Certification in ServSafe*
- 2. Certification in Food Protection Management*

*Many courses are offered in eight-week express sessions.*



**AAS – Hospitality and Food Service Management – Meetings and Event Management Track**

60 credit hours

**FIRST YEAR**

**First Semester**

<u>ENGL</u> 1301	<u>Composition I</u>
HAMG 1321	Introduction to Hospitality Industry
HAMG 1340	Hospitality Legal Issues
TRVM 1327	Special Events Design
TRVM 2301	Introduction to Convention/Meeting Management

**Second Semester**

<u>GEN ED</u>	<u>Humanities/Fine Arts</u> course
HAMG 1324	Hospitality Human Resources Management
HAMG 2337	Hospitality Facilities Management
TRVM 2341	International Convention/Meeting Management
TRVM 2355	Exposition and Trade Show Operations

**Third Semester**

<u>GEN ED</u>	<u>Social/Behavioral Sciences</u> course
<u>MATH</u> 1332	<u>Contemporary Mathematics (Quantitative Reasoning)</u> (See <u>Mathematics</u> options)

**SECOND YEAR**

**First Semester**

HAMG 2301	Principles of Food and Beverage Operations
HAMG 2307	Hospitality Marketing and Sales
<u>SPCH</u> 1321	<u>Business and Professional Communication</u> (See <u>Speech</u> Options)
TRVM 2380	Cooperative Education – Tourism and Travel Services Management

**Second Semester**

HAMG 2305	Hospitality Management and Leadership (Capstone)
HAMG 2332	Hospitality Financial Management
RSTO 2307	Catering
ELECTIVE *	

*\*Elective: (3 Credit Hours):*

*CHEF 1301, CHEF 1305, CHEF 1364, HAMG 1313, HAMG 1366, RSTO 1301, RSTO 1325, RSTO 1364, TRVM 1366, PSTR 1301 or PSTR 1364*

*Many courses are offered in eight-week express sessions.*

**Certificate Level 1 – Foundations of Restaurant Operations**

18 credit hours

**FIRST YEAR**

**First Semester**

CHEF 1305	Sanitation and Safety <sup>1,2</sup>
HAMG 1321	Introduction to Hospitality Industry
HAMG 1324	Hospitality Human Resources Management
RSTO 1325	Purchasing for Hospitality Operations
HAMG 2301	Principles of Food and Beverage Operations (Capstone)

Elective\*

*\* Elective (3 credit hours): CHEF 1301, PSTR 1301, RSTO 1301, HAMG 2307, TRVM 2301, TRVM 1327, RSTO 1364, HAMG 1366, TRVM 1366, CHEF 1364 or PSTR 1364*

*1. Certification in ServSafe*

*2. Certification in Food Protection Management*

*Many courses are offered in eight-week express sessions.*

**Certificate Level 1 – Foundations of Hotel Operations**

18 credit hours

**FIRST YEAR**

**First Semester**

HAMG 1321	Introduction to Hospitality Industry
HAMG 1313	Front Office Management
HAMG 1324	Hospitality Human Resources Management
TRVM 2301	Introduction to Convention/Meeting Management
HAMG 2307	Hospitality Marketing and Sales (Capstone)

Elective \*

*\* Elective (3 credit hours): CHEF 1301, CHEF 1305, CHEF 1364, HAMG 1366, HAMG 2301, TRVM 1327, TRVM 1366, RSTO 1301, RSTO 1364, RSTO 1325, PSTR 1301 or PSTR 1364*

*Many courses are offered in eight-week express sessions.*

**Certificate Level 1 – Foundations of Meetings and Event Management**

18 credit hours

**FIRST YEAR**

**First Semester**

HAMG 1321	Introduction to Hospitality Industry
TRVM 1327	Special Events Design
TRVM 2301	Introduction to Convention/Meeting Management
TRVM 2341	International Convention/Meeting Management (Capstone)
TRVM 2355	Exposition and Trade Show Operations



Elective\*

*\*Elective (3 credit hours) CHEF 1301, PSTR 1301, RSTO 1301, RSTO 1325, HAMG 2301, HAMG 1313, HAMG 1324, CHEF 1305, HAMG 1366, TRVM 1366, CHEF 1364 or PSTR 1364*

*Many courses are offered in eight-week express sessions.*

### **Certificate Level 2 – Meetings and Event Management**

36 credit hours

*Students must be TSI complete.*

#### **First Semester**

HAMG 1321	Introduction to Hospitality Industry
TRVM 1327	Special Events Design
TRVM 2301	Introduction to Convention / Meeting Management
TRVM 2341	International Convention / Meeting Management
TRVM 2355	Exposition and Trade Show Operations
Elective*	

#### **Second Semester**

HAMG 1340	Hospitality Legal Issues
HAMG 2307	Hospitality Marketing and Sales
HAMG 2337	Hospitality Facilities Management
HAMG 2332	Hospitality Financial Management
HAMG 2305	Hospitality Management and Leadership (Capstone)

Elective\*\*

*\* Elective (3 credit hours) CHEF 1301, PSTR 1301, RSTO 1301, RSTO 1325, HAMG 2301, HAMG 1313, HAMG 1324, CHEF 1305, HAMG 1366, TRVM 1366, CHEF 1364 or PSTR 1364*

*\*\* Elective (3 credit hours) CHEF 1301, PSTR 1301, RSTO 1301, RSTO 1325, HAMG 1313, CHEF 1305, RSTO 1364, HAMG 1366, TRVM 1366, CHEF 1364, PSTR 1364, CHEF 2380, PSTR 2380, HAMG 2380 or TRVM 2380*

*Many courses are offered in eight-week express sessions.*

### **Certificate Level 2 – Hospitality and Foodservice Management**

36 credit hours

*Students must be TSI complete.*

#### **First Semester**

CHEF 1305	Sanitation and Safety <sup>1,2</sup>
HAMG 1321	Introduction to Hospitality Industry
HAMG 1324	Hospitality Human Resources Management

RSTO 1325	Purchasing for Hospitality Operations
HAMG 2301	Principles of Food and Beverage Operations

Elective\*

#### **Second Semester**

HAMG 1340	Hospitality Legal Issues
HAMG 2307	Hospitality Marketing and Sales
HAMG 2337	Hospitality Facilities Management
HAMG 2332	Hospitality Financial Management
HAMG 2305	Hospitality Management and Leadership (Capstone)

Elective\*\*

*\* Elective (3 credit hours) CHEF 1301, PSTR 1301, RSTO 1301, HAMG 2307, TRVM 2301, TRVM 1327, RSTO 1364, HAMG 1366, TRVM 1366, CHEF 1364 or PSTR 1364*

*\*\* Elective (3 credit hours): CHEF 2380, PSTR 2380, HAMG 2380, or TRVM 2380*

*1 Certification in ServSafe*

*2 Certification in Food Protection Management*

*Many courses are offered in eight-week express sessions.*

### **HVAC (HEATING, VENTILATION, AIR CONDITIONING)**

#### **Program Options:**

#### **AAS – HVAC (Heating, Ventilation, Air Conditioning)**

#### **Certificate Level 1 – HVAC Entry Certification**

#### **Certificate Level 1 – HVAC Residential Servicing Certification**

#### **Certificate Level 2 – HVAC Commercial Servicing Certification**

The need for qualified heating, ventilation, air conditioning (HVAC) technicians is never going away. Collin College can teach you what it takes to work in the residential HVAC industry installing and servicing gas and electric furnaces and heat pump systems.

You will learn how to work safely and responsibly within Environmental Protection Agency guidelines and standards that apply to the HVAC industry, and identify and use HVAC equipment, components and tools, while understanding their functions within the industry. You will also learn common mechanical, electrical and electronic components such as compressors, switches, thermostats, motors and fans. You will even be able to practice all of the techniques you learn with heat pumps, heating units, a/c units, refrigeration units and more with hands-on instruction in Collin College facilities.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification

opportunity may be impacted. If you have any questions or concerns, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

Students planning to transfer to a college or university should check with the Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

For more information, please contact the program director, Brian Sanders at [bsanders@collin.edu](mailto:bsanders@collin.edu).

### AAS – HVAC (Heating, Ventilation, Air Conditioning)

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

###### *First 8 Weeks*

HART 1301	Basic Electricity for HVAC
HART 1307	Refrigeration Principles
HART 1256	EPA Recovery Certification Preparation

###### *Second 8 Weeks*

HART 1441	Residential Air Conditioning
HART 1445	Gas and Electric Heating

##### **Second Semester**

###### *First 8 Weeks*

HART 2431	Advanced Electricity for HVAC
HART 2438	Air Conditioning Installation and Startup

###### *Second 8 Weeks*

HART 2345	Residential Air Conditioning Systems Design
HART 2349	Heat Pumps

#### **SECOND YEAR**

##### **First Semester**

###### *First 8 Weeks*

HART 2341	Commercial Air Conditioning
HART 2342	Commercial Refrigeration
SPCH 1321	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> options)

###### *Second 8 Weeks*

HART 2334	Advanced A/C Controls
HART 2343	Industrial Air Conditioning

##### **Second Semester**

ECON 1301 Introduction to Economics <sup>1</sup>

ENGL 1301 Composition I

HART 2358 Testing, Adjusting, and Balancing HVAC Systems (Capstone)

GEN ED [Humanities/Fine Arts](#) course

GEN ED [Mathematics](#) course

1. May substitute ECON 2301, ECON 2302, or PSYC 2301

### Certificate Level 1 – HVAC Entry Certification

16 credit hours

#### **FIRST YEAR**

##### **First Semester**

###### *First 8 Weeks*

HART 1256	EPA Recovery Certification Preparation
HART 1301	Basic Electricity for HVAC
HART 1307	Refrigeration Principles

###### *Second 8 Weeks*

HART 1441	Residential Air Conditioning (Capstone)
HART 1445	Gas and Electric Heating

### Certificate Level 1 – HVAC Residential Servicing Certification

30 credit hours

#### **FIRST YEAR**

##### **First Semester**

###### *First 8 Weeks*

HART 1256	EPA Recovery Certification Preparation
HART 1301	Basic Electricity for HVAC
HART 1307	Refrigeration Principles

###### *Second 8 Weeks*

HART 1441	Residential Air Conditioning
HART 1445	Gas and Electric Heating

##### **Second Semester**

###### *First 8 Weeks*

HART 2431	Advanced Electricity for HVAC
HART 2438	Air Conditioning Installation and Startup

###### *Second 8 Weeks*

HART 2345	Residential Air Conditioning Systems Design
HART 2349	Heat Pumps (Capstone)

### Certificate Level 2 – HVAC

#### Commercial Servicing Certification

45 credit hours

*Students must be TSI complete.*

#### **FIRST YEAR**

##### **First Semester**

###### *First 8 Weeks*

HART 1256	EPA Recovery Certification Preparation
HART 1301	Basic Electricity for HVAC
HART 1307	Refrigeration Principles

###### *Second 8 Weeks*

HART 1441	Residential Air Conditioning
HART 1445	Gas and Electric Heating

##### **Second Semester**

*First 8 Weeks*

HART	2431	Advanced Electricity for HVAC
HART	2438	Air Conditioning Installation and Startup

*Second 8 Weeks*

HART	2345	Residential Air Conditioning Systems Design
HART	2349	Heat Pumps

**SECOND YEAR****Second Semester***First 8 Weeks*

HART	2341	Commercial Air Conditioning
HART	2342	Commercial Refrigeration
SPCH	1321	<u>Business and Professional Communication (See <a href="#">Speech options</a>)</u>

*Second 8 Weeks*

HART	2334	Advanced A/C Controls
HART	2343	Industrial Air Conditioning

*Verification of Workplace Competencies: Obtaining Industry Certification (NATE)*

**INDUSTRIAL AUTOMATION****Program Options:****AAS – Industrial Automation****Certificate Level 1 – Industrial Automation****Certificate Level 2 – Industrial Automation**

Automation makes manufacturing more efficient and improves production. Collin College's Industrial Automation program will provide you with the skills and training to work as an electronic or mechanical technician in many areas of the manufacturing or industrial sector. Technicians learn to service and test robots and other unmanned equipment and to design processes to maximize the efficiency and output of assembly lines.

Industrial Automation Technicians install, repair and maintain the equipment used in modern manufacturing and industrial facilities. The need and salaries for these highly-skilled technicians continues to grow with the advancements in industrial control applications and manufacturing processes. Students in this program will apply electronics principles and develop ladder logic for use with programmable logic controller (PLC) functions. They will also learn advanced programming techniques for specialized applications. Be a part of the future in manufacturing with training as an Industrial Automation technician today!

**AAS – Industrial Automation**

60 credit hours

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

CETT	1407	Fundamentals of Electronics
ENGL	1301	<u>Composition I</u>
CETT	1425	Digital Fundamentals
TECM	1343	Technical Algebra and Trigonometry

**Second Semester**

SPCH	1321	<u>Business and Professional Communication</u>
CETT	1409	DC-AC Circuits
RBTC	1405	Robotic Fundamentals
ELMT	1305	Basic Fluid Power

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

INTC	1307	Instrumentation Test Equipment
PHYS	1405	<u>Conceptual Physics</u>
RBTC	2345	Robot Application, Set-up, and Testing
ELMT	1301	Programmable Logic Controllers
INTC	1357	AC-DC Motor Control

**Second Semester**

ECON	1301	<u>Introduction to Economics</u>
GEN ED		<u>Humanities/Fine Arts</u> course
CETT	1445	Microprocessor
ELMT	2339	Advanced Programmable Logic Controllers
INTC	2359	Distributed Control Systems (Capstone)

**Certificate Level 1 – Industrial Automation**

34 credit hours

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

CETT	1407	Fundamentals of Electronics
CETT	1425	Digital Fundamentals
TECM	1343	Technical Algebra and Trigonometry

**Second Semester**

CETT	1409	DC-AC Circuits
RBTC	1405	Robotic Fundamentals
ELMT	1305	Basic Fluid Power

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

INTC	1307	Instrumentation Test Equipment
RBTC	2345	Robot Application, Set-up, and Testing
ELMT	1301	Programmable Logic Controllers (Capstone)
INTC	1357	AC-DC Motor Control

**Certificate Level 2 – Industrial Automation**

44 credit hours

*Students must be TSI complete.*

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

CETT	1407	Fundamentals of Electronics
CETT	1425	Digital Fundamentals
TECM	1343	Technical Algebra and Trigonometry

### Second Semester

CETT	1409	DC-AC Circuits
RBTC	1405	Robotic Fundamentals
ELMT	1305	Basic Fluid Power

## SECOND YEAR

### First Semester

INTC	1307	Instrumentation Test Equipment
RBTC	2345	Robot Application, Set-up, and Testing
ELMT	1301	Programmable Logic Controllers
INTC	1357	AC-DC Motor Control

### Second Semester

CETT	1445	Microprocessor
ELMT	2339	Advanced Programmable Logic Controllers
INTC	2359	Distributed Control Systems (Capstone)

## INFORMATION SYSTEMS CYBERSECURITY

### Program Options:

#### AAS – Information Systems Cybersecurity

##### Certificate Level 1 – Information Systems Cybersecurity

##### Certificate Level 1 – CISSP Information Systems Cybersecurity Professional

With high-profile information breaches and identity thefts in the news regularly, the need to secure data and the systems that store it has never been more important. Play your part in keeping important information safe with a certificate or degree from Collin College's Information Systems Cybersecurity program.

Collin College's cybersecurity program will prepare you for a career in cybersecurity management and support with an education in network management, system administration, technical support, hardware/software installation and equipment repair. Courses and hands-on labs will prepare you to take a variety of Cisco, Microsoft and CompTIA certification examinations. As a graduate with an Associate of Applied Science, you 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.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

### AAS – Information Systems Cybersecurity

60 credit hours

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

### FIRST YEAR

#### First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
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#### ELECTIVE\*

ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITNW	1358	Network +
<u>MATH</u>	<u>1342</u>	<u>Elementary Statistical Methods</u> (See <a href="#">Mathematics Options</a> )

#### Second Semester

ITCC	1314	CCNA 1: Introduction to Networks
ITMT	1373	Networking with Windows Server 2016
ITSC	1316	Linux Installation and Configuration
ITSY	1300	Fundamentals of Information Security (Security +)
ITSY	2300	Operating System Security

## SECOND YEAR

### First Semester

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITSY	2301	Firewalls and Network Security
ITSY	2342	Incident Response and Handling
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> options)

### Second Semester

<u>ECON</u>	<u>2302</u>	<u>Principles of Microeconomics</u> (See <a href="#">Social/Behavioral Sciences</a> options)
ITSE	1359	Introduction to Scripting Languages – Python
ITSY	2341	Security Management Practices (Capstone)
ITSY	2343	Computer System Forensics
<u>PHIL</u>	<u>2303</u>	<u>Introduction to Formal Logic</u> (See <a href="#">Humanities</a> options)

*\* Electives (3 credit hours): ITSY 2572 (recommended), or any ITCC, ITNW, ITMT, or ITSY course not listed above*

### Certificate Level 1 – Information Systems Cybersecurity

33-35 credit hours

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

## FIRST YEAR

### First Semester

ITCC	1314	CCNA 1: Introduction to Networks (ITN)
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITNW	1358	Network +

### Second Semester

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials
ITMT	1373	Networking with Windows Server 2016
ELECTIVE	*	

## SECOND YEAR

### First Semester

ITSY	2300	Operating System Security
ITSY	2301	Firewalls and Network Security
ITSY	2342	Incident Response and Handling

### Second Semester

ITSY	2341	Security Management Practices (Capstone)
ITSY	2343	Computer System Forensics

\* Elective (3-5 credit hours): ITSY 1300 or ITSY 2572

## Certificate Level 1 – CISSP Information Systems Cybersecurity Professional

17 credit hours

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

## FIRST YEAR

### First Semester

ITNW	1358	Network +
ELECTIVE*		

### Second Semester

ITSY	1300	Fundamentals of Information Security
ITSY	2341	Security Management Practices
ITSY	2572	Certified Information Systems Security Professional (CISSP) Common Body of Knowledge Domain Instruction (Capstone)

\* Elective (3 credit hours): Any ITSY course not listed above, with consent of the Associate Dean

## INSURANCE MANAGEMENT

## Program Options:

### AAS – Insurance Management

- Insurance Industry Track
- Sales and Agency Track

### Certificate Level 1 – Insurance Industry

### Certificate Level 1 – Sales and Agency

### Certificate Level 2 – Insurance Industry

The Insurance Industry degree and certificate program at Collin College is designed to prepare students for a variety of positions in the Insurance Industry. Students have the opportunity to attain professional designations as they complete their course work in the Insurance Industry program

*“The Insurance Industry touches every aspect of daily life and business. When we drive our cars, we accept risk of damage to our expensive automobile and potential injury to ourselves and others. When we operate our business, we encounter risks to our business property, reputation, and livelihood. Insurance Management is what allows our lives and the economy to operate smoothly in spite of the risks and the reality that “bad things” will occasionally happen. Insurance is what makes us whole when things go wrong in both our personal and business lives. An Insurance Professional, is responsible for putting lives back together.”*

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

## AAS – Insurance Industry Track

60 credit hours

## FIRST YEAR

### First Semester

BMGT	1344	Negotiations and Conflict Management
BUSI	1307	Personal Finance
INSR	1345	Commercial Liability Risk Management and Insurance

ECON 1301 Introduction to Economics

ENGL 1301 Composition I

### Second Semester

BMGT	1341	Business Ethics
INSR	1301	Commercial Insurance

INSR 1305 Personal Insurance

SPCH 1321 Business and Professional Communication

### Summer Semester

INSR	1375	Insurance Data Analytics
<u>MATH 1342</u>		<u>Elementary Statistical Methods</u>

## SECOND YEAR

### First Semester



INSR	1351	Essentials of Risk Management
INSR	2311	Workers Compensation and Medical Aspects of Claims
INSR	2319	Liability Insurance Claims Adjusting
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

**Second Semester**

ACCT	2301	Principles of Financial Accounting
BCIS	1305	Business Computer Applications
BUSG	2380	Cooperative Education Business/Commerce, General <sup>1</sup> (Capstone)
INSR	1355	The Legal Environment of Insurance
INSR	1374	Personal Lines Insurance Underwriting

1. May substitute INSR 1391

**AAS – Sales and Agency Track**

60 credit hours

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

BMGT	1344	Negotiations and Conflict Management
BUSI	1307	Personal Finance
INSR	1345	Commercial Liability Risk Management and Insurance

ECON 1301 Introduction to Economics

ENGL 1301 Composition I

**Second Semester**

ACCT	2301	Principles of Financial Accounting
BCIS	1305	Business Computer Applications
BMGT	1341	Business Ethics
SPCH	1321	<u>Business and Professional Communication</u>

**Summer Semester**

INSR	1375	Insurance Data Analytics
<u>MATH</u>	<u>1342</u>	<u>Elementary Statistical Methods</u>

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

INSR	1353	Insurance Operations
INSR	2340	Multiline Insurance Sales and Marketing
MRKG	1301	Customer Relationship Management
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

**Second Semester**

BUSG	2380	Cooperative Education - Business/Commerce, General <sup>1</sup> (Capstone)
INSR	1355	The Legal Environment of Insurance
INSR	1374	Personal Lines Insurance Underwriting
MRKG	2312	e-Commerce Marketing
MRKG	2333	Principles of Selling

1. May substitute INSR 1391

**Certificate Level 1 – Insurance Industry**

21 credit hours

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

INSR	1345	Commercial Liability Risk Management and Insurance
INSR	1301	Commercial Insurance
INSR	1305	Personal Insurance

**Second Semester**

INSR	1351	Essentials of Risk Management (Capstone)
INSR	2311	Workers Compensation and Medical Aspects of Claims
INSR	2319	Liability Insurance Claims Adjusting
INSR	1374	Personal Lines Insurance Underwriting

**Certificate Level 1 – Sales and Agency**

21 credit hours

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

INSR	1345	Commercial Liability Risk Management and Insurance
INSR	1375	Insurance Data Analytics
INSR	2340	Multiline Insurance Sales and Marketing

**Second Semester**

INSR	1353	Insurance Operations (Capstone)
MRKG	1301	Customer Relationship Management
MRKG	2312	e-Commerce Marketing
MRKG	2333	Principles of Selling

**Certificate Level 2 – Insurance Industry**

39 credit hours

*Students must be TSI complete.*

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

INSR	1345	Commercial Liability Risk Management and Insurance
INSR	1301	Commercial Insurance
INSR	1305	Personal Insurance

**Second Semester**

INSR	1351	Essentials of Risk Management
INSR	1374	Personal Lines Insurance Underwriting
INSR	2311	Workers Compensation and Medical Aspects of Claims
INSR	2319	Liability Insurance Claims Adjusting

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

INSR	1375	Insurance Data Analytics
INSR	2340	Multiline Insurance Sales and Marketing



MRKG 1301 Customer Relationship Management <sup>1</sup>

### Second Semester

INSR 1353 Insurance Operations  
 INSR 1355 The Legal Environment of Insurance  
 BUSG 2380 Cooperative Education -  
 Business/Commerce, General <sup>2</sup>  
 (Capstone)

1. May substitute MRKG 2312 or MRKG 2333

2. May substitute INSR 1391

## INTERIOR DESIGN

### Program Options:

**AAS – Interior Design**

**OSA – Interior Design**

**Certificate Level 1 – Interior Design**

**Certificate Level 1 – Advanced Interior Design**

As an interior designer, you can shape the way your clients interact with the world. With Collin College's Interior Design program, you will learn how to use space effectively and responsibly, considering your supply sourcing, client needs and other factors.

You will learn skills important to any architect or interior designer, including spatial composition, drafting, space planning, building codes and material selection. Students are immediately valuable to employers because of the college's strong curriculum in computer-aided design drafting, and the program's strengths in advanced levels of drafting and modeling means you can position yourself within interior and architectural design firms to continue your training.

Interior Design is a state-licensed profession and all state requirements must be met before either title can be used.

Students planning to transfer to a college or university should check with the Collin College academic advisor. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

**All new students:** Please contact one of the Interior Design faculty or the college academic advisor prior to registering for any INDS courses.

### AAS – Interior Design

60 credit hours

#### FIRST YEAR

##### First Semester

DFTG 1309 Basic Computer-Aided Drafting  
 INDS 1301 Basic Elements of Design  
 INDS 1341 Color Theory and Application  
 INDS 1371 Introduction to Green Design

SPCH 1321 Business and Professional Communication (See [Speech](#) options)

### Second Semester

INDS 1351 History of Interiors I  
 INDS 1372 Computer-Aided Drafting for Interior Designers  
 INDS 1349 Fundamentals of Space Planning  
MATH 1324 Mathematics for Business and Social Sciences (See [Mathematics](#) options)

### Summer Semester

ENGL 1301 Composition I  
GEN ED Social/Behavioral Sciences course

## SECOND YEAR

### First Semester

INDS 1352 History of Interiors II  
 INDS 2313 Residential Design I  
 INDS 2315 Lighting for Interior Designers  
GEN ED Humanities/Fine Arts course

### Second Semester

INDS 1315 Materials, Methods and Estimating  
 INDS 1345 Commercial Design I  
 INDS 1373 Green Interiors  
 INDS 2374 Sustainable Living

### Summer Semester

INDS 2330 Interior Design Building Systems (Capstone)

*Note: May substitute INDS 2380 for any INDS course, with consent of Associate Dean and Discipline Lead.*

### OSA – Interior Design

12 credit hours

#### FIRST YEAR

##### First Semester

DFTG 1309 Basic Computer-Aided Drafting  
 INDS 1371 Introduction to Green Design

### Second Semester

INDS 1349 Fundamentals of Space Planning  
 INDS 1372 Computer-Aided Drafting for Interior Designers

### Certificate Level 1 – Interior Design

21 credit hours

#### FIRST YEAR

##### First Semester

DFTG 1309 Basic Computer-Aided Drafting  
 INDS 1301 Basic Elements of Design  
 INDS 1341 Color Theory and Application

INDS 1371 Introduction to Green Design

### Second Semester

INDS 1349 Fundamentals of Space Planning  
 INDS 1351 History of Interiors I <sup>1</sup>  
 INDS 1372 Computer-Aided Drafting for Interior Designers (Capstone)

1. May substitute INDS 1352

## Certificate Level 1 – Advanced Interior Design

42 credit hours

### FIRST YEAR

#### First Semester

DFTG 1309 Basic Computer-Aided Drafting  
 INDS 1301 Basic Elements of Design  
 INDS 1341 Color Theory and Application  
 INDS 1371 Introduction to Green Design

#### Second Semester

INDS 1349 Fundamentals of Space Planning  
 INDS 1351 History of Interiors I  
 INDS 1372 Computer-Aided Drafting for Interior Designers

#### Summer Semester

INDS 1352 History of Interiors II

### SECOND YEAR

#### First Semester

INDS 1373 Green Interiors  
 INDS 2313 Residential Design I  
 INDS 2315 Lighting for Interior Designers

#### Second Semester

INDS 1315 Materials, Methods and Estimating  
 INDS 1345 Commercial Design I

#### Summer Semester

INDS 2330 Interior Design Building Systems (Capstone)

## INTERPRETER EDUCATION PROGRAM (IEP)

*Also see [American Sign Language](#) area of study for transfer coursework.*

#### Department Website:

<https://www.collin.edu/department/asliep/>

#### Program Options:

**AAS – Interpreter Education Program (IEP)**

**Certificate Level 2 – ASL Studies**

**Certificate Level 3 – ESC – Interpreting in Medical Settings**

*(Note: in order to become a Texas BEI Certified Interpreter, you must have an associate degree or have earned 60 credit hours from an accredited college or university.)*

Interested in an American Sign Language (ASL) interpreting career? Collin College's Interpreter Education Program (IEP) can put you on a path to a personally rewarding career working with the Deaf community.

As an IEP student, your education will be based in a foundation of American Sign Language. Focus areas are language learning, interpreting skills and an understanding of Deaf Culture taught by Deaf professors.

Interpreting requires excellence in ASL and a thorough knowledge of oneself and one's ethics because interpreters are privy to confidential information. To confirm adequate proficiency in ASL, IEP students are required to complete the IEP Language Assessment prior to beginning their second year in the program. Students must complete the assessment in order to continue in the IEP program. Students who do not successfully pass any part of the assessment may continue in the program but must complete skills development – including workshops, lab materials, and interaction with ASL Lab assistants, group study, community events, and online materials – that strengthens their language skills. Licensure Notice: Students who have been involved with the criminal system, please be advised that your background could keep you from being licensed by the State of Texas. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

Vaccination Requirements for Interpreters in a Healthcare Setting: As of January 1, 2012, the Joint Commission has a requirement that all on-site Contract Medical Interpreters are current on all immunizations. This has become known as "hospital ready". Proof of Immunization records required: Hepatitis B (requires 7 months to get all 3 shots required), annual Tuberculosis "TB" screening and annual Influenza. Some agencies also require proof of MMR, DTAP, and Varicella. Contact your physician and ask for a statement of current vaccinations. If you do not meet all the requirements above, please schedule an appointment with your physician and obtain your needed immunizations. These immunizations will be required prior to some onsite observations.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

#### 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 Education Program (IEP)

65 credit hours

#### **FIRST YEAR**

##### **Fall Semester**

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>MATH</u>	<u>1314</u>	<u>College Algebra</u> (See <a href="#">Mathematics Options</a> )
SGNL	1401	Beginning American Sign Language I +
SLNG	1215	Visual/Gestural Communication ( <i>Fall Semester only</i> )

##### **Second Semester**

SGNL	1402	Beginning American Sign Language II +
SLNG	1207	Intra-lingual Skills Development for Interpreters ( <i>Spring Semester only</i> )
SLNG	1347	Deaf Culture
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u> (See <a href="#">Speech Options</a> )

##### **Summer Semester**

SGNL	2301	Intermediate American Sign Language I +
SLNG	1211	Fingerspelling and Numbers
SLNG	1321	Introduction to the Interpreting Profession

*Note: Prior to registering for the Second Year coursework, the IEP Language Assessment is required.*

#### **SECOND YEAR**

##### **Fall Semester**

SGNL	2302	Intermediate American Sign Language II +
SLNG	1350	Sign-to-Voice ( <i>Fall Semester only</i> )
SLNG	2301	Interpreting I ( <i>Fall Semester only</i> )
<u>GEN ED</u>		<a href="#">Social/Behavioral Sciences</a> course

##### **Spring Semester**

<u>PHIL</u>	<u>2306</u>	<u>Introduction to Ethics</u> <sup>1</sup>
SLNG	2186	Internship I – Sign Language Interpretation and Translation
SLNG	2302	Interpreting II ( <i>Spring Semester only</i> )
SLNG	2303	Transliterating ( <i>Spring Semester only</i> )
SLNG	2311	Interpreting in Specialized Settings ( <i>Spring Semester only</i> )

##### **Summer Semester**

SLNG	1291	Special Topics in Sign Language Interpreter ( <i>Summer Semester only</i> )
SLNG	2331	Interpreting III ( <i>Summer Semester only</i> )
SLNG	2387	Internship II – Sign Language Interpretation and Translation (Capstone) ( <i>Summer Semester only</i> )

+ *American Sign Language courses are also transfer courses and may be used, at some institutions, to satisfy a Foreign Language requirement.*

1. *May substitute DRAM 1310, DRAM 2361, DRAM 2362, DRAM 2366, ENGL 2322, ENGL 2323, ENGL 2327, ENGL 2328, ENGL 2332, ENGL 2333, HIST 2311, HIST 2312, HIST 2321, HIST 2322, HUMA 1301, PHIL 1301, PHIL 1304, PHIL 2303, PHIL 2307 or PHIL 2321*

### Certificate Level 2 – ASL Studies

35 credit hours

*Student must meet Texas Success Initiative (TSI) college-readiness standards. See the Dean to file a degree plan for this certificate before registering for required courses marked with an asterisk.*

#### **FIRST YEAR**

##### **Fall Semester**

ENGL	1301	Composition I*
SGNL	1401	Beginning American Sign Language I +
SLNG	1215	Visual/Gestural Communication ( <i>Fall Semester only</i> )
SLNG	1347	Deaf Culture

##### **Second Semester**

SGNL	1402	American Sign Language: Beginning II +
SLNG	1207	Intra-lingual Skills Development for Interpreters ( <i>Spring Semester only</i> )
SPCH	1311	Introduction to Speech Communication

##### **Summer Semester**

SGNL	2301	American Sign Language (ASL): Intermediate I +
SLNG	1211	Fingerspelling and Numbers ( <i>Summer Semester only</i> )
SLNG	1321	Introduction to the Interpreting Profession ( <i>Summer Semester only</i> )

#### **SECOND YEAR**

##### **Fall Semester**

SGNL	2302	American Sign Language: Intermediate II +
SLNG	1350	Sign-to-Voice (Capstone) ( <i>Fall Semester only</i> )

+ *American Sign Language courses are also transfer courses and may be used, at some institutions, to satisfy a Foreign Language requirement.*

### Certificate Level 3 – ESC – Interpreting in Medical Settings

7 credit hours

*Prior to being admitted into this award, the student must have earned an AAS in Interpreter Education Program (IEP), or earned a Texas BEI Certified Interpreter certification.*

#### **FIRST YEAR**

##### **First Semester**

HITT 1305 Medical Terminology I

##### **Second Semester**

SLNG 2189 ESC Internship – Sign Language Interpretation and Translation (Capstone)

SLNG 2371 Interpreting in the Medical Setting

#### **MARKETING**

##### **Department Website:**

<http://www.collin.edu/department/marketing>

##### **Program Options:**

##### **AAS – Marketing**

##### **Certificate Level 1 – Marketing**

In marketing, creativity and business come together to create engaging messages designed to drive communications, involvement, and sales. With a marketing education from Collin College, you'll be prepared to participate in all types of work atmospheres, from retail or wholesale organizations to non-profits, governmental agencies, and academic institutions. Collin College's marketing program is designed to give you a thorough background in aspects of marketing if you are new to marketing and to provide methods for improving your skills if you are already employed in a marketing career.

If you are in a program that requires a criminal background check, that check may have an impact on your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity. If you have any questions or concerns about background checks, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

Through transfer agreements, students may earn their Associate of Applied Science (AAS) degree in Marketing from Collin College and transfer to numerous universities in Texas where their Collin College courses may be applied toward Bachelor of Applied Arts and Science (BAAS) and Bachelor of Applied Technology (BAT) degrees. Any student planning to transfer to a college or university should check with the Collin College academic advisors.

NOTE: You should check the degree requirements of your intended transfer college prior to beginning this program to verify course degree applicability.

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 College'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.

### AAS – Marketing

60 credit hours

It is highly recommended that you complete MRKG 1311 prior to taking any of the other courses.

#### **FIRST YEAR**

##### **First Semester**

BMGT 1307 Team Building  
 BMGT 2303 Problem Solving and Decision Making  
MATH 1332 Contemporary Mathematics (Quantitative Reasoning)  
 (See [Mathematics](#) options)  
 MRKG 1301 Customer Relationship Management  
 MRKG 1311 Principles of Marketing

##### **Second Semester**

BMGT 1305 Communications in Management  
 BMGT 1341 Business Ethics  
 BUSG 2309 Small Business Management/Entrepreneurship  
ENGL 1301 Composition I  
 IBUS 1354 International Marketing Management  
 MRKG 2349 Advertising and Sales Promotion

#### **SECOND YEAR**

##### **First Semester**

BMGT 1327 Principles of Management  
GEN ED Humanities/Fine Arts course  
 IBUS 2341 Intercultural Management  
 MRKG 2312 e-Commerce Marketing  
 MRKG 2333 Principles of Selling

##### **Second Semester**

ECON 1301 Introduction to Economics<sup>1</sup>  
 MRKG 2348 Marketing Research and Strategies<sup>2</sup>  
 MRKG 2381 Cooperative Education – Marketing / Marketing Management, General (Capstone)<sup>3</sup>  
SPCH 1321 Business and Professional Communication (See [Speech](#) options)

1. May substitute ECON 2301, ECON 2302 or PSYC 2301

2. May substitute BUSG 1307
3. May substitute BUSG 2371, with consent of Discipline Lead (prior to registering)

### Certificate Level 1 – Marketing

18 credit hours

It is highly recommended that you complete MRKG 1311 prior to taking any of the other courses.

#### **FIRST YEAR**

##### **First Semester**

BMGT 2303	Problem Solving and Decision Making
MRKG 1301	Customer Relationship Management
MRKG 1311	Principles of Marketing

##### **Second Semester**

BMGT 1341	Business Ethics
BUSG 2309	Small Business Management/Entrepreneurship (Capstone)
IBUS 1354	International Marketing Management

### MEDICAL ASSISTING ADVANCED PRACTICE

#### **Department Website:**

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

#### **Program Options:**

**AAS – Medical Assisting**

**OSA – Medical Scribe**

**Certificate Level 1 – Medical Assisting**

Medical Assistants can be hired in hospitals, clinics, urgent care facilities, and every specialty of doctor's offices. They are the most versatile of entry level medical professions. With the ever-changing reimbursement schedule from insurance companies to physicians and facilities, nurses are cost prohibitive in smaller health care settings. Industry trends show that more and more clinics, offices and health care providers are hiring Medical Assistants (MA) in lieu of nurses. MAs are expected to fill the role of front office staff, clinical assisting, phlebotomy, EKG technicians and to have general billing and coding knowledge. Students completing the MA program will have job opportunities across multiple healthcare facilities and specialties.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your Program Director and check with your licensing/certifying entity, if any, to determine your status.

The curriculum contains both transfer and workforce courses. The workforce courses are mainly offered at the

Collin College Technical Campus and the Wylie Campus. For additional information, please contact Leon Deutsch, [LDeutsch@collin.edu](mailto:LDeutsch@collin.edu).

### **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 forms. 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 ADMISSIONS REQUIREMENTS**

In addition to meeting Collin College Admission & Graduation Requirements, students would need to complete the following prior to acceptance to the program.

- Program Application and Interview
- Drug Screening
- Background Check
- TSI Exam. It is preferred that candidates will be TSI Complete.
- Attend one of the program information sessions.
- Provide Immunization Records
- Provide proof of health insurance prior to clinicals.
- In order to graduate from the program, students must successfully complete each course in the program with a grade of 75% C, or better.
- Students must also complete at 160 clinical (externship) in a physician's office as assigned by the college.

Prior to enrolling in any clinical courses, students must complete all immunizations required by the Texas Department of State Health Services (TDSHS)\*. All required workforce courses require a minimum grade of 75% to continue in the program.

*\* 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 Coordinator. In such cases, the applicant must sign a declination form. All immunizations must be complete before assignment to clinical training.*

**Health Insurance** - All Health Profession students are required to show proof of health insurance prior to starting clinical rotations each semester.



**CPR** - Requires current American Heart Association Basic Life Support CPR certification.

### AAS – Medical Assisting (MA)

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

BIOL 2404 Human Anatomy and Physiology Basic 1

ENGL 1301 Composition I

HPRS 1271 Introduction to the Healthcare System <sup>2</sup>

HPRS 2232 Health Care Communications

PSYC 2301 General Psychology 3

##### **Second Semester**

HITT 1305 Medical Terminology I

HPRS 2301 Pathophysiology

MDCA 1309 Anatomy and Physiology for Medical Assistants

MDCA 1417 Procedures in a Clinical Setting

GEN ED Humanities/Fine Arts course

##### **Summer Semester**

HPRS 1310 Introduction to Pharmacology

MATH 1342 Elementary Statistical Methods (See Mathematics options)

#### **SECOND YEAR**

##### **First Semester**

HPRS 2321 Medical Law and Ethics for Health Professionals

MDCA 1321 Administrative Procedures

MDCA 1448 Pharmacology & Administration of Medications

MDCA 1452 Medical Assistant Laboratory Procedures

##### **Second Semester**

HPRS 1303 End of Life Issues

MDCA 1154 Medical Assisting Credentialing Exam Review

MDCA 1360 Clinical – Medical/Clinical Assistant

##### **Summer Semester**

HPRS 2374 Trends in Healthcare (Capstone)

1. May substitute BIOL 1406

2. May substitute HPRS 1204

3. May substitute ANTH 2302, ANTH 2346, ANTH 2351, HIST 1301, HIST 1302, HIST 2301, SOCI 1301 or SOCI 1306

### OSA – Medical Scribe

12 credit hours

#### **FIRST YEAR**

##### **First Semester**

HITT 1305 Medical Terminology I

HPRS 2321 Medical Law and Ethics for Health Professionals

MDCA 1309 Anatomy and Physiology for Medical Assistants

MDCA 1321 Administrative Procedures

### Certificate Level 1 - Medical Assisting (MA)

31 credit hours

#### **FIRST YEAR**

##### **First Semester**

HITT 1305 Medical Terminology I

HPRS 2301 Pathophysiology

MDCA 1309 Anatomy and Physiology for Medical Assistants

MDCA 1417 Procedures in a Clinical Setting

##### **Second Semester**

HPRS 2321 Medical Law and Ethics for Health Professionals

MDCA 1321 Administrative Procedures

MDCA 1448 Pharmacology & Administration of Medications

MDCA 1452 Medical Assistant Laboratory Procedures

##### **Summer Semester**

MDCA 1154 Medical Assisting Credentialing Exam Review

MDCA 1360 Clinical – Medical/Clinical Assistant (Capstone)

### METAL ARTS

Also see Welding workforce program.

#### **Program Options:**

##### **AAS – Metal Arts**

##### **OSA – Metalsmithing**

##### **Certificate Level 1 – Foundry**

##### **Certificate Level 1 – Metal Sculpture**

##### **Certificate Level 2 – Metal Arts**

Metal Arts is a craft that is highly valued in both the industrial and the artistic worlds. Metal Arts Welders who graduate from Collin College's program will be prepared to earn a job or go into business for themselves, providing a service that is always in high demand.

Collin College offers an associate of applied science in Metal Arts, an OSA in metalsmithing, two level 1 certificates, and one level 2 certificate. The AAS will allow you to earn a degree in Metal Arts, while the certificates are designed to qualify you in specific processes such as Metalsmithing, Foundry, Metal Sculpture, and Metal Arts.



If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

The Metal Arts program will be housed at the Allen Technical Center. The department has a foundry and TIG, MIG and stick welders.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability

### AAS – Metal Arts

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

WLDG 1308	Metal Sculpture
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)
WLDG 1430	Introduction to Gas Metal Arc Welding (GMAW)
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding

##### **Second Semester**

WLDG 1371	Introduction to Foundry Practices
WLDG 1401	Metalsmithing
WLDG 2447	Advanced Gas Metal Arc Welding (GMAW)
WLDG 2451	Advanced Gas Tungsten Arc Welding (GTAW)

#### **SECOND YEAR**

##### **First Semester**

<u>GEN ED</u>	<u>Humanities/Fine Arts</u> course
<u>GEN ED</u>	<u>Mathematics</u> course
WLDG 1405	Art Metals
WLDG 2471	Advanced Foundry Practices

##### **Second Semester**

<u>ENGL</u> 1301	Composition I
<u>GEN ED</u>	<u>Social/Behavioral Sciences</u> course
<u>SPCH</u> 1321	<u>Business and Professional Communication</u> (See <u>Speech</u> options)
ARTS 2326	Sculpture
WLDG 2440	Advanced Metal Sculpture <sup>1</sup> (Capstone)

1. May substitute WLDG 2480, with consent of Associate Dean

### OSA – Metalsmithing

11 credit hours

#### **FIRST YEAR**

##### **First Semester**

WLDG 1401	Metalsmithing
WLDG 1405	Art Metals (Capstone)
WLDG 1308	Metal Sculpture

### Certificate Level 1 – Foundry

22 credit hours

##### **First Semester**

WLDG 1371	Introduction to Foundry Practices
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)
WLDG 1430	Introduction to Gas Metal Arc Welding (GMAW)
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding

##### **Second Semester**

ARTS 2326	Sculpture
WLDG 2471	Advanced Foundry Practices (Capstone)

### Certificate Level 1 – Metal Sculpture

22 credit hours

##### **First Semester**

WLDG 1308	Metal Sculpture
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)
WLDG 1430	Introduction to Gas Metal Arc Welding (GMAW)
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding

##### **Second Semester**

ARTS 2326	Sculpture
WLDG 2440	Advanced Metal Sculpture <sup>1</sup> (Capstone)

1. May substitute WLDG 2480, with consent of Associate Dean

### Certificate Level 2 – Metal Arts

45 credit hours

*Students must be TSI complete.*

#### **FIRST YEAR**

##### **First Semester**

WLDG 1401	Metalsmithing
WLDG 1308	Metal Sculpture
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)
WLDG 1430	Introduction to Gas Metal Arc Welding (GMAW)

**Second Semester**

WLDG 1405	Art Metals
WLDG 1371	Introduction to Foundry Practices
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding
WLDG 2447	Advanced Gas Metal Arc Welding (GMAW)

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

WLDG 2440	Advanced Metal Sculpture <sup>1</sup> (Capstone)
ARTS 2326	Sculpture
WLDG 2471	Advanced Foundry Practices
WLDG 2451	Advanced Gas Tungsten Arc Welding (GTAW)

1. May substitute WLDG 2480, with consent of Associate Dean

**MUSIC, COMMERCIAL**

Also see [Associate of Arts – Music Field of Study](#).

**Department Website:**

<http://www.collin.edu/department/music>

**Program Options:****AAS – Commercial Music****Certificate Level 1 – Audio Engineering**

- *Studio Track*
- *Live Sound Track*

**Certificate Level 2 – Music Business**

Picture yourself at the board, turning up the bass and down the mid-range, capturing the vocals of the hottest new artist on the charts. Collin College's Commercial Music program provides career training in performance, audio engineering, sound reinforcement, electronic music, composition and songwriting.

The Associates of Applied Science (AAS) in Commercial Music is a broader two-year degree which includes general education and traditional music courses beyond the courses in music business or audio engineering. You can earn an Associate of Applied Science or one of a pair of certificates which fold into the AAS.

The audio engineering certificate has two tracks. The Studio Track focuses on recording, mixing and mastering. The Live Sound Track focuses on designing, setting up and running sound reinforcement for live events. The courses concentrate on building the skills necessary to successfully work in the music industry as either a mixing engineer or live sound engineer.

The music business certificate addresses the demands for working in the music industry in marketing and

management positions such as artist promotions, concerts and tours, merchandising, social networking, etc.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

**AAS – Commercial Music**

60 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 1303	Fundamentals of Music

**Second Semester**

MUSC 1313	Commercial Music Theory I
MUSC 2427	Audio Engineering II
MUSI 1116	Sight Singing & Ear Training I <sup>1</sup>
SPCH 1321	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> Options)

ELECTIVE \*

ELECTIVE \*

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

<u>ENGL 1301</u>	<u>Composition I</u>
MUSB 2301	Music Marketing
MUSC 1331	MIDI I
MUSP 1113	Introductory Group Piano I <sup>2</sup>
<u>GEN ED</u>	<u>Mathematics/Natural Sciences</u> Course
ELECTIVE *	

**Second Semester**

MUSB 2350	Commercial Music Project (Capstone) <sup>3</sup>
MUSC 1405	Live Sound I
MUSC 2351	Audio for Video
<u>MUSI 1307</u>	<u>Music Literature</u> <sup>4</sup>
MUSP 1114	Introductory Group Piano II <sup>5</sup>
<u>GEN ED</u>	<u>Social/Behavioral Sciences</u> course

*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.*

*\* Electives (minimum of 7 credit hours) If not used in degree requirements: Any MUAP, any MUEN, MUSB 1341, MUSB 2345, MUSB 2355, MUSB 2380, MUSC 1209, MUSC 1321, MUSC 1323, MUSC 1333, MUSC 2313, MUSC 2314, MUSC 2330, MUSC 2345, MUSC 2355, MUSC 2356, MUSC 2403, MUSC 2447, MUSC 2448, MUSC 2453, MUSI 1117, MUSI 1181, MUSI 1182, MUSI 1183, MUSI 1184, MUSI 1192, MUSI 1193, MUSI*

1310, MUSI 1312, MUSI 2116, MUSI 2117, MUSI 2181, MUSI 2182, 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

1. Required for Commercial Music Majors
2. May substitute MUSI 1181 or MUSP 1110, departmental permission required
3. May substitute MUSB 2380, departmental permission required
4. Required to fulfill the Humanities/Fine Arts requirement – No course substitutions
5. May substitute MUSI 1182, MUSP 1110, or MUSP 2235, departmental permission required

### Certificate Level 1 – Audio Engineering

#### Studio Track

31 credit hours

#### FIRST YEAR

##### Summer Semester

MUSC 1327 Audio Engineering I

##### First Semester

MUSB 1305 Survey of the Music Business

MUSB 2301 Music Marketing

MUSC 1405 Live Sound I

MUSC 2427 Audio Engineering II

##### Second Semester

MUSC 1323 Audio Electronics

MUSC 1331 MIDI I

MUSC 2447 Audio Engineering III

MUSC 2448 Audio Engineering IV (Capstone)

*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.*

### Certificate Level 1 – Audio Engineering Live Sound Track

31 credit hours

#### FIRST YEAR

##### Summer Semester

MUSC 1327 Audio Engineering I

##### First Semester

MUSB 1305 Survey of the Music Business

MUSB 1341 Concert Promotion and Venue Management

MUSC 1405 Live Sound I

MUSC 2427 Audio Engineering II

#### Second Semester

MUSC 1323 Audio Electronics

MUSC 1331 MIDI I

MUSC 2403 Live Sound II

MUSC 2453 Live Sound III (Capstone)

*Audio Engineering courses (MUSC 1327 and MUSC 2427) 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.*

### Certificate Level 2 – Music Business

33 credit hours

*Students must be TSI complete.*

#### FIRST YEAR

##### Summer Semester

MUSB 1305 Survey of the Music Business

##### First Semester

MUSB 1341 Concert Promotion and Venue Management

MUSB 2301 Music Marketing

MUSC 1327 Audio Engineering I

MUSI 1310 American Music

SPCH 1321 Business and Professional Communication (See [Speech](#) Options)

##### Second Semester

MUSB 2345 Live Music and Talent Management

MUSB 2350 Commercial Music Project (Capstone)

MUSC 1331 MIDI I

ELECTIVE \*

ELECTIVE \*

*\* Electives (minimum of 6 credit hours): MUSB 2355, MUSB 2380, MUSC 1321, MUSC 1405, MUSC 2355, MUSC 2356 or MUSC 2427*

### NURSING (RN)

#### Department website:

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

#### Program Options:

AAS – Nursing (RN)

AAS – LVN to RN Bridge Program

A career in nursing will make a difference in your own life and the lives of others. Pursuing your nursing degree at Collin College is a great way to start.

Collin College's Associate Degree Nursing (ADN) program prepares students for a career as a professional registered nurse in this quickly-growing field with state-of-the-art facilities and educators who have years of practical

experience working in health care. Collin College has been recognized as a Center of Excellence in Nursing Education by the National League for Nursing (NLN) since 2011, one of only a handful of community colleges in the nation to earn that honor.

The concept-based nursing curriculum is designed for deep learning so that you develop higher-level clinical judgment. The curriculum divides nursing concepts into two categories – health care concepts and professional nursing concepts – which are learned in the classroom and then applied in practical settings like the health sciences simulation labs in the Cary A. Israel Health Sciences Center, as well as in local health care facilities where students complete clinical rotations.

The nursing curriculum is approved by the Texas Board of Nursing (Texas BON) and accredited by the Accreditation Commission for Education in Nursing (ACEN). Upon graduation, Collin College's ADN program students are ready to apply to the Texas BON for licensure as a registered nurse (RN) through the NCLEX-RN examination.

The college also offers a bridge program for LVNs, allowing for faster degree completion to begin your career as a professional registered nurse earlier.

**Licensure Notice:** Students who have been involved with the criminal system, are advised that your background could keep you from being licensed by the State of Texas. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

If an individual has reason to believe he/she is ineligible for licensure, he/she may petition the Texas BON for a declaratory order. Upon application to the nursing program, you must show your eligibility to take the NCLEX-RN exam through outcomes letter that will be issued by the Texas BON if the declaratory order is approved. To check your eligibility, please review the following questions. If you answer "yes" to any one of the following questions, you must have the declaratory order from the Texas BON completed prior to applying to the nursing program.

- Have you ever been convicted of a misdemeanor (other than a class C misdemeanor traffic violation)?
- Have you ever been convicted of a felony?
- Have you ever pled nolo contendere, no contest, or guilty?
- Have you ever received deferred adjudication?

- Have you ever been placed on community supervision or court-ordered probation, whether or not adjudicated guilty?
- Have you ever been sentenced to serve jail or prison time or court-ordered confinement?
- Have you ever been granted pre-trial diversion?
- Have you ever been arrested or have any pending criminal charges?
- Have you ever been cited or charged with any violation of the law?
- Have you ever been subject of a court-martial; Article 15 violation; or received any form of military judgment, punishment, or action?

Contact the Nursing Department for further information.

Collin County healthcare facilities support the ADN program. Several healthcare facilities throughout the Metroplex are used for the clinical experience.

Students planning to transfer to a college or university should check with Collin College academic advisors and are encouraged to check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

### **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 <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 Nursing Program is fully accredited by the Accreditation Commission for Education in Nursing (ACEN). They may be contacted at:

3343 Peachtree Road NE, Suite 850

Atlanta, GA 30326

404.975.5000

[www.acenursing.org](http://www.acenursing.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 Nursing Office or the Nursing website: <http://www.collin.edu/nursing>.

- Complete pre-entrance course requirements with a minimum 2.5 GPA
- Earn a grade of “C” or better in all courses applicable to the Nursing program
- Submit official copies of all college transcripts to include Collin College
- Complete an entrance exam prior to the Jan. 31<sup>st</sup>, March 31<sup>st</sup> or Aug. 31<sup>st</sup> deadline (see nursing website)
- Successful completion of drug screen, background check and physical exam
- Submit a current American Heart Association CPR for Health Care workers
- Provide documentation of a current negative TB test
- Complete a declaratory order from the Texas BON, if needed
- Show positive titer 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 Clinical Coordinator.*

**Health Insurance** – All nursing students are required to show proof of health insurance prior to starting clinical rotations each semester.

Placement in mathematics and English courses is based upon the results of each student’s assessments and subjects completed before admission.

### AAS – Nursing (RN)

60 credit hours

#### PREREQUISITES

<u>BIOL</u>	<u>2401</u>	<u>Anatomy and Physiology I</u> <sup>1</sup>
<u>BIOL</u>	<u>2402</u>	<u>Anatomy and Physiology II</u> <sup>1</sup>
<u>BIOL</u>	<u>2420</u>	Microbiology for Non-Science Majors

#### FIRST YEAR

##### First Semester

<u>PSYC</u>	<u>2301</u>	<u>General Psychology</u> <sup>1</sup>
RNSG	1125	Professional Nursing Concepts I
RNSG	1128	Introduction to Health Care Concepts
RNSG	1161	Clinical I – Nursing – Registered Nurse Training
RNSG	1216	Professional Nursing Competencies

RNSG 1430 Health Care Concepts I

##### Second Semester

PSYC	2314	Life-Span Growth and Development
RNSG	1126	Professional Nursing Concepts II
RNSG	1533	Health Care Concepts II
RNSG	2361	Clinical II – Nursing – Registered Nurse Training

#### SECOND YEAR

##### First Semester

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
RNSG	1137	Professional Nursing Concepts III
RNSG	1538	Health Care Concepts III
RNSG	2362	Clinical III – Nursing – Registered Nurse Training

##### Second Semester

RNSG	2138	Professional Nursing Concepts IV (Capstone)
RNSG	2363	Clinical IV – Nursing – Registered Nurse Training
RNSG	2539	Health Care Concepts IV
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

1. No course substitutions

### AAS – LVN to RN Bridge Program

60 credit hours

#### Prerequisites/Pre-Admission

<u>BIOL</u>	<u>2401</u>	<u>Anatomy and Physiology I</u> <sup>1</sup>
<u>BIOL</u>	<u>2402</u>	<u>Anatomy and Physiology II</u> <sup>1</sup>
<u>BIOL</u>	<u>2420</u>	Microbiology for Non-Science Majors <sup>2</sup>
<u>PSYC</u>	<u>2301</u>	<u>General Psychology</u> <sup>1</sup>
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

*Nursing faculty will determine the application and approval process.*

#### FIRST Semester

##### SUMMER

RNSG	1118	Transition to Professional Nursing Competencies
RNSG	1128	Introduction to Health Care Concepts
RNSG	1475	Transitional Professional Nursing Concepts
RNSG	1215	Health Assessment

#### SECOND Semester

##### FALL

<u>PSYC</u>	<u>2314</u>	<u>Life-Span Growth and Development</u>
RNSG	1430	Health Care Concepts I
RNSG	1533	Health Care Concepts II
RNSG	1163	Clinical I - Registered Nursing/Registered Nurse

#### THIRD Semester



**SPRING**

RNSG	1538	Health Care Concepts III
RNSG	2162	Clinical II - Registered Nursing/Registered Nurse
RNSG	2230	Professional Nursing Review and Licensure Preparation
RNSG	2539	Health Care Concepts IV

**FOURTH Semester****SUMMER**

RNSG	2563	Clinical III - Registered Nursing/Registered Nurse
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1. No course substitutions
2. May substitute BIOL 2421

**PARALEGAL/LEGAL ASSISTANT****Program Options:****AAS – Paralegal / Legal Assistant****Certificate Level 2 – Paralegal General**

*Collin College's Paralegal Program is approved by the American Bar Association (ABA).*

If you are interested in a legal career in law, Collin College's Paralegal/Legal Assistant program is an excellent starting point and is approved by the American Bar Association.

Law firms, corporations and governmental agencies hire paralegals/legal assistants to perform a wide variety of legal tasks under the direction and supervision of a licensed attorney. For example, paralegals investigate cases, interview witnesses and draft documents such as wills, contracts and court papers. As a result, paralegals must be proficient in computer skills, legal terminology and legal procedures. Collin College's Associate of Applied Science degree in Paralegal/Legal Assistant Studies provides excellent training in these areas and offers opportunities for specialization.

Not only is this career path interesting; it is growing at a fast pace. According to the U.S. Bureau of Labor Statistics, employment of paralegals and legal assistants is projected to grow 12 percent from 2018 to 2028, much faster than the average for all occupations.

This program trains students to become paralegals and legal assistants and helps them prepare for a national certification examination. The program does not qualify a graduate to take a state bar exam, represent clients in court, or give legal advice. Paralegals may not provide legal services directly to the public, except as permitted by law. Admission to the Paralegal/Legal Assistant program is open to all students. Students with a prior degree may be eligible for admission to the Level II Paralegal General Certificate program. For more information about

eligibility, please see the certificate pre-entrance requirements.

**Paralegal Program Goals**

Consistent with the core values of the district, the mission of the paralegal studies program is to further the paralegal profession by providing specialized training and education in law and legal procedure that will produce graduates who are prepared to enter the legal workforce with sufficient technology skills and a firm understanding of the ethical responsibilities of the attorney and paralegal.

The goals of the paralegal program are:

1. The program will reflect a diverse student body.
2. The program will produce graduates who possess the legal knowledge and technology skills necessary to qualify them for employment in a legal work environment.
3. The program will produce graduates who demonstrate an understanding of their ethical responsibility in the legal profession.
4. The program will emphasize written communication skills.
5. The program will promote opportunities to service the needs of the local community and encourage *pro bono* and public interest causes.

Texas Woman's University (TWU) and Collin College Paralegal/Legal Assistant programs entered an articulation agreement effective Fall 1999, which establishes a plan for students to obtain an AAS degree from Collin College and a Bachelor of Science in Government – Legal Studies Emphasis degree from TWU. Collin College established a similar articulation agreement with Texas A&M University-Commerce, effective Fall 2004, for the Bachelor of Arts/Science in Political Science with Emphasis in Paralegal Studies degree.

Admission to the Paralegal/Legal Assistant Associate of Applied Science Program is open to all students. Students with a prior degree **may be** eligible for admission to the Level II Paralegal General Certificate program. See certificate pre-entrance requirements.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

**AAS – Paralegal / Legal Assistant**

60 credit hours<sup>1</sup>

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

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
LGLA	1303	Legal Research



LGLA 1307 Introduction to Law and the Legal Professions  
 MATH 1314 College Algebra <sup>2</sup>

### Second Semester

GOVT 2305 Federal Government (Federal constitution and topics) <sup>3</sup>  
 LGLA 1345 Civil Litigation  
 LGLA 2303 Torts and Personal Injury Law

### Summer Semester

ENGL 1302 Composition II  
 LGLA 1351 Contracts  
 LGLA 2311 Business Organizations  
 PHIL 2303 Introduction to Formal Logic <sup>4</sup> (See [Humanities/Fine Arts](#) Options)

## SECOND YEAR

### First Semester

LGLA 1305 Legal Writing  
 LGLA 1355 Family Law  
 LGLA 2333 Advanced Legal Document Preparation  
 LGLA 1370 Introduction to Legal Conventions  
 GEN ED [Speech](#) course

### Second Semester

LGLA 1353 Wills, Trusts and Probate Administration  
 LGLA 2339 Certified Paralegal Exam Review (Capstone) <sup>5</sup>  
 LAW ELECTIVE \*  
 LAW ELECTIVE \*

\**Law Electives (6 credit hours): LGLA 1323, LGLA 1343, LGLA 1344, LGLA 1380, LGLA 2307, LGLA 2309, LGLA 2313, or LGLA 2323.*

1. *These hours include 42 credit hours of LGLA courses, at least nine credit hours of which must be in traditional face-to-face format*
2. *May substitute MATH 1316, MATH 1324, MATH 1332, MATH 1342, MATH 1350, MATH 1351, or MATH 1414*
3. *May substitute GOVT 2306; no other substitutions*
4. *Recommended for students planning to take the LSAT*
5. *Students should contact the National Association of Legal Assistants (NALA) for current exam eligibility requirements*

### Certificate Level 2 – Paralegal General

36 credit hours<sup>1</sup>

*Students must be TSI complete.*

### Pre-Entrance Requirements

Admission to the college or the degree program does not guarantee admission to the Paralegal General Certificate Program. Prior to admission to the certificate program, students must provide official documentation showing that they have earned a Bachelor of Arts, Bachelor of Science,

Bachelor of Business Administration, Associate of Arts, Associate of Science, or Associate of Arts for Teaching degree to demonstrate that they have met the American Bar Association requirements of having successfully developed critical reasoning, writing skills, and oral communication skills by completing at least eighteen semester credits of general education courses.

### First Semester

LGLA 1303 Legal Research  
 LGLA 1307 Introduction to Law and the Legal Professions  
 LGLA 1345 Civil Litigation  
 LGLA 2333 Advanced Legal Document Preparation

### Second Semester

LGLA 1370 Introduction to Legal Conventions  
 LGLA 2303 Torts and Personal Injury Law  
 LAW ELECTIVE \*  
 LAW ELECTIVE \*

### Third Semester

LGLA 1305 Legal Writing  
 LGLA 1351 Contracts  
 LGLA 2311 Business Organizations  
 LGLA 2339 Certified Paralegal Exam Review (Capstone) <sup>2</sup>

\**Law Electives (6 credit hours): LGLA 1323, LGLA 1343, LGLA 1344, LGLA 1353, LGLA 1355, LGLA 1380, LGLA 2307, LGLA 2309, LGLA 2313, or LGLA 2323*

1. *These hours include 36 credit hours of LGLA courses, at least nine credit hours of which must be in traditional face-to-face format*
2. *Students should contact the National Association of Legal Assistants (NALA) for current exam eligibility requirements.*

## PASTRY ARTS

*Also see Culinary Arts*

### Department Website:

<http://www.collin.edu/department/ihce/index.html>

### Program Options:

**AAS – Pastry Arts**

**Certificate Level 1 – Pastry Arts**

**Certificate Level 3 – ESC – Advanced Pastry Arts**

Sweet! Learn how to build a career of creating delectable delights with Collin College's Pastry Arts program. Once you complete the Pastry Arts program, you will be qualified for a variety of bakery positions in the food service industry.

A part of the college's Institute of Hospitality and Culinary Education (IHCE), Collin College's Pastry Arts program

emphasizes a broad selection of hands-on food preparation courses, building on baking and pastry foundation skills that will allow you to be effective in a commercial bakeshop environment. The curriculum is designed by industry experts and taught by experienced pastry professionals, as well as being fully accredited by the American Culinary Federation Education Foundation.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

### TRANSFER

Students planning to transfer to a college or university should check with a Collin College academic advisor. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

### ACCREDITATION

The Culinary Arts Program is fully accredited by the American Culinary Federation Education Foundation.

They may be contacted at:

180 Center Place Way  
St. Augustine, FL 32095  
800.624.9458  
<http://www.acfchefs.org>

### ADMISSION REQUIREMENTS

Students are required to attend mandatory Pastry Arts Orientation. Please visit the program website (<http://www.collin.edu/department/ihee/>) for dates and times.

*Note: Pastry 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 – Pastry Arts

60 credit hours

*An American Culinary Federation (ACF) accredited program.  
Students will be eligible for Certified Pastry Culinarian (CPC) upon graduation.*

### FIRST YEAR

#### First Semester

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

### Second Semester

IFWA	1310	Nutrition and Menu Planning
<u>MATH</u>	<u>1332</u>	<u>Contemporary Mathematics (Quantitative Reasoning)</u> (See <a href="#">Mathematics</a> options)
PSTR	1305	Breads and Rolls
PSTR	1310	Pies, Tarts, Teacakes and Cookies
RSTO	1325	Purchasing for Hospitality Operations

### Third Semester

PSTR	1306	Cake Decorating I
<u>GEN ED</u>		<a href="#">Humanities/Fine Arts</a> course

### SECOND YEAR

#### First Semester

HAMG	1324	Hospitality Human Resources Management
PSTR	2301	Chocolates and Confections
PSTR	2307	Cake Decorating II
<u>GEN ED</u>		<a href="#">Social/Behavioral Sciences</a> course

#### Second Semester

PSTR	2331	Advanced Pastry Shop (Capstone)
PSTR	2380	Cooperative Education – Baking and Pastry Arts/Baker/Pastry Chef
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> options)
ELECTIVE *		

*\* Elective (3 credit hours): CHEF 2331, HAMG 1313, HAMG 1340, HAMG 2301, HAMG 2332, HAMG 2337, RSTO 2307, TRVM 2301 or PSTR 1364*

*1 Certification in ServSafe*

*2 Certification in Food Protection Management*

*Many courses are taught in eight-week format.*

### Certificate Level 1 – 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	1305	Breads and Rolls
PSTR	1306	Cake Decorating I
PSTR	1310	Pies, Tarts, Teacakes and Cookies (Capstone)
PSTR	2301	Chocolates and Confections

*1. Certification in ServSafe*

*2. Certification in Food Protection Management*

Many courses are offered in eight-week express sessions.

### Certificate Level 3 – ESC – Advanced Pastry Arts

12 credit hours

Prior to being admitted to this program, students must provide official documentation showing they have earned a Certificate or AAS in Pastry Arts.

#### **ADVANCED PASTRY ARTS COURSES**

##### **First Semester**

PSTR 1312 Laminated Dough, Pate a Choux and Donuts

PSTR 1340 Plated Desserts

##### **Second Semester**

PSTR 1342 Quantity Bakeshop Production (Capstone)

PSTR 1343 Bakery Operations and Management

#### **PHOTOGRAPHY, COMMERCIAL**

See [Photography area of study](#) for academic transfer coursework.

##### **Department Website:**

<http://www.collin.edu/departments/photography/>

##### **Program Options:**

#### **AAS – Commercial Photography**

#### **Certificate Level 1 – Studio Production**

#### **Certificate Level 2 – Commercial Photography Specialist**

If photography is your passion, turn it into a career at Collin College. Collin College's Commercial Photography program is an excellent path to obtain the skills and professionalism necessary to start your career as a commercial photographer. Learn techniques and technology from experienced photographers who know the industry and can guide your development as a commercial photographer.

Collin College's Photography program offers certificates and/or a degree plan with the goal of preparing students to enter the commercial photography workforce. In order to maintain a high level of excellence, the program works closely with an advisory board of professional photographers, seeking advice, recommendations, and internships. Studies include a variety of commercial shooting styles, with emphasis on natural, studio, and location lighting, management of a commercial studio, and the skills to assist professional photographers, art directors, and stylists. The department's facility includes a digital lab, a darkroom, 2-bay lighting studio, alternative process lab, book binding lab, and a large format digital printing lab. All studios are supplied with quality equipment corresponding to the industry standard of professional

studios. Additionally, the department maintains equipment for students to check out, including digital cameras, film cameras, location lights and accessories. Complete your college experience enrolled in a college supervised Internship with a professional photography studio. After two years students will have not only obtained the skills and knowledge to enter the field of Commercial Photographer; additionally, students gain real-world experience, establish contacts in the commercial field and gain confidence to make a place in the world of commercial photography.

### AAS – Commercial Photography

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

ARTS 1313 Foundations of Art (See [Humanities/Fine Arts](#) options)

ARTS 2348 Digital Media

PHTC 1371 Book, Design, and Presentation

ENGL 1301 Composition I

PHTC 2340 Photographic Studio Management

##### **Second Semester**

GEN ED Mathematics/Natural Sciences course

PHTC 1300 Digital Photography II

PHTC 1353 Portraiture I

PHTC 2331 Architectural Photography

CREATIVE COURSE <sup>1</sup>

#### **SECOND YEAR**

##### **First Semester**

PHTC 1341 Color Photography I

PHTC 2349 Digital Photography III

PHTC 2371 Video for Photographers

SPCH 1321 Business and Professional

Communication (See [Speech](#) options)

TECHNICAL COURSE <sup>2</sup>

##### **Second Semester**

PHTC 1345 Illustrative Photography I

PHTC 2343 Portfolio Development (Capstone)

PHTC 2353 Portraiture II

PHTC 2380 Cooperative Education – Commercial Photography

SOCI 1301 Introduction to Sociology (See [Social/Behavioral Sciences](#) options)

1. Select one Creative course (3 hours): ARTS 1311, ARTS 2356 or PHTC 1343

2. Select one Technical course (3 hours): PHTC 1347, PHTC 1351 or PHTC 2342

### Certificate Level 1 – Studio Production

15 credit hours

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

ARTS	1313	Foundations of Art
ARTS	2348	Digital Media

**Second Semester**

PHTC	1353	Portraiture I
PHTC	2371	Video for Photographers (Capstone)
CREATIVE COURSE <sup>1</sup>		

1. Select one Creative course (3 hours): ARTS 2356 or PHTC 1300

### Certificate Level 2 – Commercial Photography Specialist

36 credit hours

*Prior to being admitted into this program, the student must have earned the Certificate Level 1 – Studio Production or have permission of the Associate Dean.*

*Students must be TSI complete.*

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

PHTC	1300	Digital Photography II
PHTC	1371	Book, Design and Presentation
PHTC	2340	Photographic Studio Management
CREATIVE COURSE <sup>1</sup>		

**Second Semester**

PHTC	1341	Color Photography I (Theory and Management)
PHTC	2331	Architectural Photography
PHTC	2349	Digital Photography III
TECHNICAL COURSE <sup>2</sup>		

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

PHTC	1345	Illustrative Photography I
PHTC	2343	Portfolio Development (Capstone)
PHTC	2353	Portraiture II
PHTC	2380	Cooperative Education – Commercial Photography

1. Select one Creative course (3 hours): ARTS 1311, ARTS 2356 or PHTC 1343

2. Select one Technical course (3 hours): PHTC 1347, PHTC 1351 or PHTC 2342

**POLICE ACADEMY**

*Also see Continuing Education Basic Peace Officer program*

**Department Website:**

<http://www.collin.edu/department/lawenforcement>

**Program Option:****Certificate Level 1 – Basic Peace Officer**

Law enforcement officers are vital parts of their communities, standing between the law-abiding public and the criminals who would do them harm. With a basic peace officer certificate from the Collin College Law Enforcement Academy (CCLEA), you can be part of that proud tradition.

For more than 25 years, the academy has trained graduates to serve and protect. With a curriculum developed by the Texas Commission on Law Enforcement (TCOLE) and state-of-the-art facilities designed to simulate real-world situations, cadets are prepared for the state's Peace Officer Licensing Exam.

The Collin College Law Enforcement Academy is considered one of the top programs in the state. Law enforcement personnel from the rank of patrol officer to chief of police from around the state have been trained there. The Certificate - Basic Peace Officer program is designed to allow you to become a certified peace officer in the State of Texas and, simultaneously, provide a pathway to a college degree.

The academy also offers continuing education classes for law enforcement officers already on the job. Click the department website link below to learn more.

**Licensure Notice:** Students who have been involved with the criminal system, please be advised that your background could keep you from being licensed by the State of Texas. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

The mission of the Basic Peace Officer courses (BPOC) is to provide the student with the foundational skills necessary to successfully police a free society in a professional, ethical, and effective manner.

**ADMISSION REQUIREMENTS:**

All students must complete the admission process required by Collin College. Prospective students applying to the Basic Peace Officer Program are classified as: Sponsored and Non-Sponsored. Sponsored applicants are employed by a law enforcement agency, meet all the requirements of *TCOLE Rule 217*, and are being sent through the course by that law enforcement agency. Non-sponsored applicants include all other individuals applying to the Basic Peace Officer Program.

Additional information may be obtained from the Collin College Law Enforcement Academy website at <http://www.collin.edu/department/lawenforcement> or by calling 972.548.6813.

1. All prospective students must meet the “Minimum Enrollment Requirements” for training as a Texas Peace Officer as established by *TCOLE Rule 217.1 Minimum Standards for Enrollment and Initial Licensure*. (See website at: <http://www.collin.edu/department/lawenforcement> for these requirements.)
2. All sponsored students must provide a notarized letter signed by the head of the sponsoring law enforcement agency stating the student meets the minimum enrollment requirements as established by TCOLE.
3. All non-sponsored applicants must successfully complete all phases of the Basic Peace Officer Program entrance assessment process, meet the minimum enrollment requirements established by TCOLE and be recommended by the oral board.
4. State law requires all new students under the age of 22 entering a higher education institution to show proof of having the bacterial meningitis vaccination or booster 10 days prior to the start of term in which they are attending.

The Basic Peace Officer Program is offered in both a part-time and full-time format. The full-time day program requires 19 weeks for completion. The part-time program requires approximately 43 weeks for completion. The classes are conducted at the McKinney Campus.

### Certificate Level 1 – Basic Peace Officer

24 credit hours

#### **FIRST YEAR**

##### **First Semester**

CJLE	1506	Basic Peace Officer I
CJLE	1512	Basic Peace Officer II
CJLE	1518	Basic Peace Officer III
CJLE	1524	Basic Peace Officer IV
CJLE	1429	Basic Peace Officer V (Capstone)

### **POLYSOMNOGRAPHIC TECHNOLOGY**

#### **Department Website:**

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

#### **Program Options:**

##### **AAS – Polysomnographic Technology**

##### **Certificate Level 1 – Polysomnographic Technology**

Sleep medicine is a growing field with more than 100 sleep disorders identified, and an estimated 60 million people in the United States suffering from at least one sleep disorder, many of which are undiagnosed or untreated. Be part of the team that helps identify and treat those disorders with a certificate or Associate of Applied Science (AAS) degree from Collin College. As a polysomnographic technologist,

you will conduct the sleep studies that allow physicians to diagnose and treat patients suffering from sleep disorders, evaluate patient sleep data, and educate patients on their sleep disorders and how best to manage them.

Through the Polysomnographic Technology program, Collin College students are prepared to enter the growing and challenging field of sleep medicine by being equipped with the skills and fundamental knowledge to effectively monitor, manage, and treat sleep disorders under medical supervision. The program offers two degree options. The 22-month AAS degree track is for students who do not have a healthcare background. The 12-month certificate is for individuals who are board-registered in any healthcare field and/or have a minimum of one year of current work experience in a sleep lab/center.

Upon graduation from either award, the graduate is eligible to sit for the Board of Registered Polysomnographic Technologists exam to become a Registered Polysomnographic Technologist (RPSGT) and/or the American Board of Sleep Medicine exam to become a Registered Sleep Technologist (RST).

**Licensure Notice:** Students who have been involved with the criminal system, please be advised that your background could keep you from being licensed by the State of Texas. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

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 Polysomnographic Technology lecture, lab and clinical course work is a C.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

### **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 Polysomnographic



Technology website: <http://www.collin.edu/sleep>. 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 Collin College Polysomnographic Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (<http://www.caahep.org>) upon the recommendation of the Committee on Accreditation for Polysomnographic Technologist Education (<http://www.coapsg.org>). They may be contacted at:

Commission on Accreditation of  
Allied Health Education Programs  
25400 U.S. Highway 19 North, Suite 158  
Clearwater, FL 33763  
727.210.2350  
<http://www.caahep.org>

### ADDITIONAL ADMISSION REQUIREMENTS

Registration is by permission only. Information and applications may be obtained online at <http://www.collin.edu/sleep> or the Health Sciences Division 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 the health exam with a satisfactory result
- Document acceptable findings on drug screens, background checks and physical/mental competencies
- Complete 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 Coordinator. In such cases, the applicant must sign a declination form. All immunizations must be complete before assignment to clinical training.*

**Health Insurance** – All Polysomnographic Technology students are required to show proof of health insurance prior to starting clinical rotations each semester.

### PROGRAM COMPLETION REQUIREMENTS

In addition to completion of all polysomnographic technology course work, students are required to complete and pass a capstone Registered Polysomnographic Technologist (RPSGT) practice exam and a comprehensive capstone clinical simulation. Both the RPSGT capstone exam and clinical simulation will take place during the final semester of the program, which is the Spring semester of the second year for AAS students and the Spring semester for Certificate students.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

### AAS – Polysomnographic Technology

60 credit hours

#### PREREQUISITES

<u>BIOL</u>	<u>2404</u>	<u>Human Anatomy and Physiology Basic</u>
<u>HPRS</u>	<u>1204</u>	<u>Basic Health Profession Skills</u>

#### FIRST YEAR

##### First Semester

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>PSGT</u>	<u>1215</u>	<u>Introduction to Polysomnography</u>
<u>PSGT</u>	<u>1310</u>	<u>Neuroanatomy and Physiology</u>
<u>RSPT</u>	<u>1207</u>	<u>Cardiopulmonary Anatomy and Physiology</u>
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u> (See <a href="#">Speech</a> options)

##### Second Semester

<u>PSGT</u>	<u>1205</u>	<u>Neurophysiology of Sleep</u>
<u>PSGT</u>	<u>1340</u>	<u>Sleep Disorders</u>
<u>PSGT</u>	<u>1400</u>	<u>Polysomnography I</u>
<u>RSPT</u>	<u>1237</u>	<u>Basic Dysrhythmia Interpretation</u>
<u>GEN ED</u>		<u>Social/Behavioral Sciences</u> course

##### Third Semester (Summer)

<u>PSGT</u>	<u>1360</u>	<u>AAS Clinical I – Polysomnography</u>
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#### SECOND YEAR

##### First Semester

<u>PSGT</u>	<u>2205</u>	<u>Sleep Scoring and Staging</u>
<u>PSGT</u>	<u>2360</u>	<u>AAS Clinical II – Polysomnography</u>
<u>PSGT</u>	<u>2411</u>	<u>Polysomnography II</u>
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

##### Second Semester

<u>PSGT</u>	<u>2250</u>	<u>Infant and Pediatric Polysomnography</u>
<u>PSGT</u>	<u>2271</u>	<u>Pharmacology for Polysomnography</u>
<u>PSGT</u>	<u>2272</u>	<u>Polysomnography Exam Preparation (Capstone)</u>
<u>PSGT</u>	<u>2361</u>	<u>AAS Clinical III – Polysomnography</u>



PSGT 2374 Clinical Sleep Education

### Certificate Level 1 – Polysomnographic Technology

28 credit hours

#### **PRE-ENTRANCE REQUIREMENTS**

Prior to being admitted to this program, students must provide official documentation showing they have earned board registry in any health care field -AND/OR- they have a minimum of one year, current work experience in a sleep lab/center.

#### **FIRST YEAR**

##### **First Semester (Fall)**

PSGT	1260	Certificate Clinical I – Polysomnography
PSGT	1310	Neuroanatomy and Physiology
PSGT	1400	Polysomnography I
PSGT	1207	Cardiopulmonary Anatomy and Physiology
RSPT	1237	Basic Dysrhythmia Interpretation

##### **Second Semester (Spring)**

PSGT	1340	Sleep Disorders
PSGT	2205	Sleep Scoring and Staging
PSGT	2250	Infant and Pediatric Polysomnography
PSGT	2260	Certificate Clinical II – Polysomnography
PSGT	2411	Polysomnography II

##### **Third Semester (Summer)**

PSGT	2272	Polysomnography Exam Preparation (Capstone)
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#### **REAL ESTATE MANAGEMENT**

##### **Department Website:**

<http://www.collin.edu/department/realestate/>

##### **Program Options:**

#### **AAS – Real Estate Management**

##### **Certificate Level 1 – Real Estate Salesperson**

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 College a personalized, practical, high quality educational

experience.

**Licensure Notice:** Students who have been involved with the criminal system, please be advised that your background could keep you from being licensed by the State of Texas. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

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 College a personalized, practical, high quality educational experience.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

#### **AAS – Real Estate Management**

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

*Each of these courses is offered as a 5-week express course.*

Recommended sequence of courses:

RELE	1300	Contract Forms & Addenda
RELE	1301	Principles of Real Estate I
RELE	1311	Law of Contracts
RELE	1319	Real Estate Finance
RELE	1338	Principles of Real Estate II
RELE	2301	Law of Agency

##### **Second Semester**

BMGT	1305	Communications in Management
BUSG	2309	Small Business Management/ Entrepreneurship
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>GOVT</u>	<u>2305</u>	<u>Federal Government (Federal constitution and topics)</u>
<u>MATH</u>	<u>1332</u>	<u>Contemporary Mathematics (Quantitative Reasoning)</u>

#### **SECOND YEAR**

##### **First Semester**

RELE	1321	Real Estate Marketing
<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> <sup>1</sup>
RELE	1325	Real Estate Mathematics
<u>ENGL</u>	<u>1302</u>	<u>Composition II</u>
<u>HIST</u>	<u>1301</u>	<u>United States History I</u>

**Second Semester**

MRKG	1301	Customer Relationship Management
MRKG	2349	Advertising and Sales Promotion (Capstone) <sup>2</sup>
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <u>Speech</u> options)
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

1. May substitute ECON 2301 or ECON 2302
2. May substitute RELE 1380

**Certificate Level 1 – Real Estate Salesperson**

18 credit hours

*This certificate provides the required core real estate courses for the Texas Salesperson Exam.*

Recommended sequence of courses:

RELE	1301	Principles of Real Estate I
RELE	1338	Principles of Real Estate II
RELE	2301	Law of Agency
RELE	1311	Law of Contracts
RELE	1300	Contract Forms and Addenda
RELE	1319	Real Estate Finance

**REHABILITATION AIDE****Program Option:****OSA – Rehabilitation Aide**

The Rehabilitation Aide Occupational Skills Award (OSA) is a two-semester award that prepares the student for a career as a Rehabilitation Aide or Physical Therapy Technician. This award is an excellent start for anyone interested in pursuing a career in physical therapy, occupational therapy, chiropractic, medicine, massage, personal training, and other related medical fields. The two-semester track will offer an in-depth education with hands-on experience in the rehabilitation field using experienced clinical staff and faculty along with state-of-the-art lab and simulation equipment. The award prepares the student to work in the rehabilitation field. It provides students interested in an advanced career in rehabilitation a springboard to explore their interests and begin working toward advanced degrees and training.

Contact [mcox@collin.edu](mailto:mcox@collin.edu) for more information.

**SELECTIVE ADMISSIONS REQUIREMENTS**

Registration is by permission only. Spaces in the Rehabilitation Aide OSA are limited. Please contact the Program Director, the program website, or the Health Sciences and Emergency Services Division Office for details on the admission process.

To apply, students must:

- Submit the required application by the designated deadline (see department website for deadline information)
- Submit a short essay addressing application criteria by the designated deadline. Details for the required content can be found on the program website or contact the Program Director or the Health Sciences and Emergency Services Division Office for more information.
- Prior to clinical placement, students must pass a drug screen and submit a background check. Both screens are at the student's expense. Results of both screens are factors in determining clinical placement.

**FUNCTIONAL ABILITIES/CORE PERFORMANCE STANDARDS STATEMENT**

All students are required to meet specific functional abilities with or without accommodations for successful completion of the program and to function safely and effectively in the variety of the profession's settings. The specific functional requirements are found in the "Functional Abilities / Core Performance Standards" documents provided in the program information and application forms. 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.

Prior to the clinical assignment, students must complete all immunizations required by the Texas Department of State Health Services (TDSHS)\*. If the student does not complete the required immunization, the student will not be able to complete the clinical portion of the OSA and graduation may be delayed.

*\*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 Coordinator. In such cases, the applicant must sign a declination form. All immunizations must be complete before the assignment to a clinical facility. If you are not able to complete the immunizations before your clinical assignment, you may not be able to complete the coursework on-time for graduation.*

**MINIMAL GRADE TO CONTINUE**

Students must complete each course in the OSA program with a "C" or better.

**HEALTH INSURANCE**

All Rehabilitation Aide students are required to show proof of health insurance before starting the clinical rotation.

**CPR**

The program requires a current American Heart Association Basic Life Support CPR certification. The

certification must be completed by the start of the clinical rotation. CPR certification is at the expense of the student.

### **CRIMINAL BACKGROUND CHECK**

All students will be required to complete a criminal background check. Students who have been involved with the criminal system, please be advised that your background could keep you from completing your clinical assignment. If you have a question about your background, please speak with your faculty member or the department chair.

### **PROGRAM COMPLETION REQUIREMENTS**

In addition to successfully completing the curriculum, students will complete a Rehabilitation Aide Certification Test. The test will be at the student's expense and will be completed at the end of the program in the last semester as part of the clinical course.

### **Occupational Skills Award – Rehabilitation Aide**

11 credit hours

#### **FIRST YEAR**

##### **First Semester**

PTHA 1409 Introduction to Physical Therapy

HPRS 2232 Health Care Communications

##### **Second Semester**

PTHA 1413 Functional Anatomy

PTHA 1160 Clinical – Physical Therapist Assistant

### **RESPIRATORY CARE**

#### **Department Website:**

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

#### **Program Option:**

#### **AAS – Respiratory Care**

Breath is life. There are few things scarier than the inability to breathe, even for a short time. Be part of the team that helps patients breathe easier with an Associate of Applied Science (AAS) degree in Respiratory Care from Collin College.

A day in the life of a respiratory therapist might include providing care to patients with lung or heart disorders, managing ventilators in the intensive care units, responding to Code Blue or other urgent calls for care, educating patients and families about lung disease, and consulting with physicians to recommend a change in therapy.

Respiratory Therapists can work in: Critical Care Units, Emergency Rooms, Neonatal and Pediatric Units, Operating Rooms, Skilled Nursing Facilities, Doctor's Offices, Asthma Education Programs or Smoking Cessation Programs.

Collin College's Respiratory Care Program prepares individuals for an allied health specialty in the clinical care and management of respiratory disorders. The 22-month program will prepare students to apply for the Therapist Multiple Choice and Clinical Simulation Credentialing Exams given by the National Board for Respiratory Care. The college also partners with Midwestern State University to offer a Bachelor of Science in Respiratory Care online completion program.

For individuals who hold a Certified Respiratory Therapist (CRT) credential who would like to become registry-eligible, please contact the Program Director.

**Licensure Notice:** Students who have been involved with the criminal system, please be advised that your background could keep you from being licensed by the State of Texas. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

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 a C.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

Spaces in the Respiratory Care Program are limited. Please see the Respiratory Care Program Information Packet, at <http://www.collin.edu/rcp> for details on the selective admission process.

### **ACCREDITATION**

The Respiratory Care 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: <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 <http://www.collin.edu/rcp> or the Health Sciences and Emergency Services Division Office. To apply, students must:

- Submit the required application form by the designated deadline
- Submit official copies of all college transcripts to the Respiratory Care Program Director.
- Complete Collin College reading, writing and mathematics assessments
- Overall GPA of 2.5 with a minimum grade of “C” in all prerequisite courses
- Complete the health exam with a satisfactory result prior to the application deadline
- Agree to criminal background check. Negative findings from the background check may compromise clinical placement.
- Once admitted, student must pass a drug screen at the student’s expense, when requested and as directed by the program
- Attend a student orientation prior to the start of the first semester in the program
- Successfully complete all program admission criteria (see Application Packet)
- Complete all immunizations required by the Texas Department of State Health Services (TDSHS) \*
- CPR – Requires current American Heart Association Basic Life Support CPR certification.

*\* 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. All immunizations must be completed by the deadline specified by the program.*

**Health Insurance** – All Respiratory Care students are required to show proof of health insurance prior to starting clinical rotations and must maintain coverage while in the program.

### PROGRAM COMPLETION REQUIREMENTS

In addition to successfully completing the respiratory care curriculum, students are required to successfully complete a comprehensive Therapist Multiple Choice (TMC) Self-Assessment Examination and a Clinical Simulation Self-Assessment Examination during the second year of the program.

1. A TMC Practice exam will be given in the Fall semester of the second year.

2. A TMC Self-Assessment Examination will be given in the Spring semester of the second year.
3. Clinical Simulation Self-Assessment Examination will be given in the Spring semester of the second year.
4. Meet all Collin College graduation requirements.

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.

### 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 recent 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

66 credit hours

### PREREQUISITES

BIOL	2401	<u>Anatomy and Physiology I</u> <sup>1</sup>
BIOL	2402	<u>Anatomy and Physiology II</u> <sup>1</sup>
HPRS	1204	Basic Health Profession Skills
HPRS	1272	Microbiology for Health Professions

### FIRST YEAR

#### First Semester

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
GEN ED		<u>Humanities/Fine Arts</u> course

#### Summer Semester

RSPT	1362	Clinical III – Respiratory Care Therapist
RSPT	2471	Respiratory Care Procedures III

### SECOND YEAR

#### First Semester

PSYC	2301	<u>General Psychology</u> <sup>2</sup>
RSPT	2255	Critical Care Monitoring

RSPT	2353	Neonatal/Pediatric Cardiopulmonary Care
RSPT	2360	Clinical IV – Respiratory Care Therapist

**Second Semester**

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
RSPT	2130	Respiratory Care Examination Preparation
RSPT	2139	Advanced Cardiac Life Support
RSPT	2147	Specialties in Respiratory Care
RSPT	2231	Simulations in Respiratory Care
RSPT	2361	Clinical V – Respiratory Care Therapist (Capstone)

1. No course substitutions

2. May substitute SOCI 1301

**SPORT AND RECREATION MANAGEMENT****Program Options:****AAS – Sport and Recreation Management****Certificate Level 1 – Recreation Management****Certificate Level 1 – Sport Management****Certificate Level 2 – Sport and Recreation Management**

The Sport & Recreation Management degree will provide entry-level employment training for individuals interested in careers in the sport and recreation industry. Employment settings include sports and fitness, marketing and sales, sport retail management, recreation program planning, facilities director, and athletic coaching positions. Collin County is a unique market that affords more opportunity for graduates wanting to go into the field of Sport & Recreation Management. **What we do know:** Frisco is home to Dallas Cowboys World Headquarters, FC Dallas soccer, Dallas Stars Hockey, Frisco Rough Riders baseball, and Texas Legends basketball. Allen is home to the Allen Americans. In addition, each city has its own Park and Recreation department.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

**AAS – Sport and Recreation Management**

60 credit hours

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

FITT	1373	Legal and Ethical Issues in Sport and Recreation Management
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
KINE	1336	Introduction to Sports Management
TRVM	1327	Special Events Design

**Second Semester**

<u>MATH</u>	<u>1342</u>	<u>Elementary Statistical Methods</u>
MRKG	1301	Customer Relationship Management
RECL	1303	Athletic Program Planning
FITT	1370	Sports Tourism

**Summer Semester**

BMGT	2382	Cooperative Education - Business Administration and Management, General
MRKG	1311	Principles of Marketing

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

BMGT	1327	Principles of Management
<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u>
HAMG	1317	Recreational Services
RECT	1301	Introduction to Therapeutic Recreation
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

**Second Semester**

ACNT	1303	Introduction to Accounting I
FITT	2371	Leadership in Sport and Recreation (Capstone)
HRPO	2307	Organizational Behavior
FITT	1371	Principles of Promoting and Selling Sport and Recreation
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u>

**Certificate Level 1 – Recreation Management**

21 credit hours

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

BMGT	1327	Principles of Management
HAMG	1317	Recreational Services
RECT	1301	Introduction to Therapeutic Recreation

**Second Semester**

ACNT	1303	Introduction to Accounting I
HRPO	2307	Organizational Behavior (Capstone)
FITT	1371	Principles of Promoting and Selling Sport and Recreation
FITT	1370	Sports Tourism

**Certificate Level 1 – Sport Management**

21 credit hours

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

FITT	1373	Legal and Ethical Issues in Sport and Recreation Management
KINE	1336	Introduction to Sports Management
TRVM	1327	Special Events Design

**Second Semester**



MRKG	1301	Customer Relationship Management
MRKG	2333	Principles of Selling
FITT	1371	Principles of Promoting and Selling Sport and Recreation
FITT	1370	Sports Tourism (Capstone)

### Certificate Level 2 – Sport and Recreation

#### Management

39 credit hours

*Students must be TSI complete.*

#### **FIRST YEAR**

##### **First Semester**

FITT	1373	Legal and Ethical Issues in Sport and Recreation Management
KINE	1336	Introduction to Sports Management
TRVM	1327	Special Events Design

##### **Second Semester**

MRKG	1301	Customer Relationship Management
RECL	1303	Athletic Program Planning
FITT	1370	Sports Tourism

#### **SECOND YEAR**

##### **First Semester**

BMGT	1327	Principles of Management
HAMG	1317	Recreational Services
RECT	1301	Introduction to Therapeutic Recreation

##### **Second Semester**

ACNT	1303	Introduction to Accounting I
HRPO	2307	Organizational Behavior
FITT	2371	Leadership in Sport and Recreation (Capstone)
FITT	1371	Principles of Promoting and Selling Sport and Recreation

### SUPPLY CHAIN MANAGEMENT

#### **Department Website:**

<http://www.collin.edu/department/supplychain/>

#### **Program Options:**

##### **AAS – Supply Chain Management**

##### **Certificate Level 1 – Logistics**

##### **Certificate Level 1 – Purchasing**

Learn to manage supply chain activities, including logistics, purchasing, inventory and warehouse management with an Associate of Applied Science or certificates from Collin College.

Collin College's Supply Chain Management program will prepare for employment in a variety of roles in this rapidly growing field which currently employs more than 6 million people and is anticipated to grow by 1.4 million jobs over the coming years. The Dallas/Fort Worth region is a national leader in supply chain services with 500 motor

carriers, 50 air cargo carriers, three freight rail lines, three major airports and 250 area firms.

The Program offers an AAS, and two Academic Certificates, one in Logistics and one in and one in Purchasing.

The program is integrated with SCPro™, a series of eight professional designations from the Council for Supply Chain Management.

### AAS – Supply Chain Management

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

BMGT	1313	Principles of Purchasing
BMGT	1344	Negotiations and Conflict Management
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
ITSC	1309	Integrated Software Applications I – MS Office
<u>SPCH</u>	<u>1321</u>	<u>Business and Professional Communication</u> (See <a href="#">Speech</a> options)

##### **Second Semester**

ACNT	1303	Introduction to Accounting I <sup>1</sup>
BMGT	1307	Team Building
<u>ECON</u>	<u>1301</u>	<u>Introduction to Economics</u> <sup>2</sup>
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course
IBUS	1341	Global Supply Chain Management

#### **SECOND YEAR**

##### **First Semester**

BMGT	1309	Information and Project Management
BMGT	2309	Leadership
BUSI	2301	Business Law
LMGT	1319	Introduction to Business Logistics
<u>MATH</u>	<u>1324</u>	<u>Mathematics for Business or Social Sciences</u> <sup>3</sup>

##### **Second Semester**

BMGT	1341	Business Ethics
BMGT	2303	Problem Solving and Decision Making
IBUS	2332	Global Business Simulation (Capstone) <sup>4</sup>
LMGT	1325	Warehouse and Distribution Center Management
LMGT	2330	International Logistics Management

*1. May substitute ACCT 2301*

*2. May substitute ECON 2301 or ECON 2302*

*3. May substitute MATH 1332 or 1314*

*4. May substitute LMGT 2388*

### Certificate Level 1 – Logistics

18 credit hours

#### **FIRST YEAR**

##### **First Semester**

BMGT	1309	Information and Project Management
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BMGT	2309	Leadership
LMGT	1319	Introduction to Business Logistics

### Second Semester

BMGT	2303	Problem Solving and Decision Making
LMGT	1325	Warehouse and Distribution Center Management
LMGT	2330	International Logistics Management (Capstone)

### Certificate Level 1 – Purchasing

18 credit hours

#### FIRST YEAR

##### First Semester

BMGT	1313	Principles of Purchasing
BMGT	1344	Negotiations and Conflict Management
ITSC	1309	Integrated Software Applications I – MS Office

##### Second Semester

ACNT	1303	Introduction to Accounting I
BMGT	1307	Team Building
IBUS	1341	Global Supply Chain Management (Capstone)

### SURGICAL PROFESSIONS

#### Department Website:

<https://www.collin.edu/surgtech>  
<https://www.collin.edu/department/surgicalassisting>

#### Program Options:

##### AAS – Surgical Technology

##### Certificate Level 1 – Central Sterile Processing

##### Advanced Technical Certificate – Surgical Assisting

Work as a member of the healthcare team alongside physicians, surgeons, registered nurses and other healthcare workers delivering patient care before, during, and after surgery.

#### Surgical Technologist (CST)

You are paged to the operating room. An emergency case is in route. You switch to high gear and prepare the OR. You have the autoclaved scalpels, scissors, clamps and the additional tools for this surgery on the table. Gowned and gloved, you are prepared as the patient is pushed through the door. Pulling the sterile drapes around the patient, your senses heighten. Your skills and performance may make the difference between this person's life or death. Continually anticipating unexpected scenarios, you hand the surgeon the correct instruments and retract the incision site to give the surgeon a better view. Your job will not end until all instruments and sponges are accounted for. You apply the correct bandages to the patient and assure that the OR is in order and ready for your next patient.

The AAS in Surgical Technology at Collin College is a 12-month program (Summer, Fall, Spring) that will prepare the student for entry-level as a surgical technologist. The course of study consists of approved courses from the Workforce Education Course Manual of Texas. Upon completion of the program, the student is qualified to take the national certification examination for surgical technologists. The Commission on Accreditation of Allied Health Education Programs accredits our program allowing graduates to become eligible for the Certified Surgical Technologist, CST credential

#### Central Sterile Processing

The certificate in Central Sterile Processing is a two-semester, special admission program. Graduates of this program are eligible to sit for the national certification examination administered by the International Association of Healthcare Central Service Material Management (IAHCSMM).

#### Surgical Assisting (CSFA)

Surgical Technologists who hold their Certified Surgical Technologist (CST) credential, an Associate of Applied Science (AAS) degree in Healthcare, and have two years of recent clinical experience as a Surgical Technologist, may apply for the Advanced

Technical Certificate (ATC) Surgical Assisting program. Graduates of this program are entitled to an Advanced Technical Certificate Surgical Assisting and upon program accreditation are eligible to sit for the national Certified Surgical First Assist (CSFA) certification examination administered by the National Board of Surgical Technology and Surgical Assisting (NBSTSA). Those students passing the certification exam are allowed to use the title Certified Surgical First Assist (CSFA).

**Licensure Notice:** Students who have been involved with the criminal system, please be advised that your background could keep you from being licensed by the State of Texas. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

Admission to the programs is selective and competitive. Please see each program's specific qualifications on their department websites.

### **SPECIAL ADMISSION REQUIREMENTS FOR CENTRAL STERILE PROCESSING AND SURGICAL TECHNOLOGY PROGRAMS:**

- Submit an application for admission to Collin College Admissions department
- Provide proof of high school graduation or GED
- Submit program application to the Health Sciences Division Office
- Complete all immunizations required by the Texas Department of State Health Services (TDSHS)\*
- Current Basic Life Support Certification provided by the American Heart Association.
- Show proof of health insurance.
- Complete the health exam with a satisfactory result exam prior to application deadline.
- Consent to criminal background check (note that negative results may compromise clinical placement)
- Consent to drug screening (note that negative results may compromise clinical placement)

*\* 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. All immunizations must be complete before the first clinical day.*

#### **ADDITIONAL REQUIREMENTS FOR CENTRAL STERILE PROCESSING PROGRAM**

- Submit a handwritten one- to two-page essay that discusses why you have chosen Central Sterile Processing as a profession and why attendance at Collin College is desired
- Request two letters of reference from employers and/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: Collin College – Health Sciences Division, Attn: Director of Central Sterile Processing Program, 2200 West University Drive, McKinney, Texas 75071

#### **ADDITIONAL REQUIREMENTS FOR SURGICAL TECHNOLOGY PROGRAM**

- Overall GPA of 2.5 or higher from all college courses completed and applicable to the surgical technology degree plan
- Submit official copies of all college transcripts to both Collin College and to the Surgical Technology Department
- Completion of prerequisites. If courses are being completed during the Spring preceding admission, please denote on application
- Students must be prepared to enter college-level mathematics by either completion of MATH 0405 or by placement at the MATH 1314 College Algebra level

- Submit a handwritten one- to two-page essay that discusses why you have chosen Surgical Technology as a profession
- Request two letters of reference from employers and/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: Collin College – Health Sciences Division, Attn: Director of Surgical Technology Program, 2200 West University Drive, McKinney, Texas 75071

#### **SELECTIVE ADMISSION REQUIREMENTS FOR THE SURGICAL ASSISTING PROGRAM**

- Submit an application for admission to Collin College Admissions department
- Submit program application to the Surgical Assisting Program Coordinator's Office - Collin College – Health Sciences Division, Attn: Coordinator of Surgical Assisting Program, 2200 West University Drive, H225A, McKinney, Texas 75071
- Complete all immunizations required by the Texas Department of State Health Services (TDSHS)\*
- Current Basic Life Support Certification provided by the American Heart Association.
- Show proof of health insurance.
- Consent to criminal background check (note that negative results may compromise clinical placement)
- Consent to drug screening (note that negative results may compromise clinical placement)

*\* 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. All immunizations must be complete before the first clinical day.*

#### **ADDITIONAL REQUIREMENTS FOR SURGICAL ASSISTING PROGRAM**

- Current Certified Surgical Technologist (CST)
- Associate's Degree or higher (see \*Note below)
- Two years recent experience as a clinical Surgical Technologist
- Submit official copies of all college transcripts denoting degrees earned to both Collin College and to the Surgical Assisting Department
- Overall GPA of 2.5 or higher from all college degrees completed
- Submit a handwritten, well-developed, one- to two-page essay discussing why you have chosen Surgical Assisting as a career choice and why attendance at the Collin College program is

desired. Submit this essay with your application form by mail or in person to: Collin College – Health Sciences Division, Attn: Coordinator of Surgical Assisting Program, 2200 West University Drive, H225A, McKinney, Texas 75071.

- Respond via email to the three question survey that will be emailed to you upon receipt of your program application to the program.
- Request two letters of reference from employers and/or professors (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: Collin College – Health Sciences Division, Attn: Coordinator of Surgical Assisting Program, 2200 West University Drive, H225A, McKinney, Texas 75071 or emailed to the Program Coordinator at [drsmith@collin.edu](mailto:drsmith@collin.edu).

\*Note: A Bridge Opportunity is available for Surgical Assisting Program candidates who are Certified Surgical Technologists (CST), have a minimum of two years' recent experience, but do not possess an Associate's Degree or higher. Contact the Surgical Assisting Program Coordinator at [drsmith@collin.edu](mailto:drsmith@collin.edu) for more information.

**Health Insurance** – All Central Sterile, Surgical Technology, and Surgical Assisting students are required to show proof of health insurance prior to starting clinical rotations each semester. Additionally, Surgical Assisting students are required to show proof of malpractice insurance prior to starting clinical rotations each semester.

**NOTE:** Students interested in admission to the program for Summer semester should see their physician and begin immunizations four (4) months prior to the beginning of the semester.

## 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.

## ACCREDITATION

The Collin College AAS – Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Accreditation Review Committee on Surgical Technology and Surgical Assisting (ARCSTA).

They may be contacted at:

1361 Park Street  
Clearwater, FL 33756  
727.210.2350

<http://www.caahep.org>

The Central Sterile Processing (CSP) curriculum is approved by the International Association of Healthcare Central Service Materiel Management (IAHCSCMM). Recipients of this certificate are eligible to sit for the national certification exam.

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 Office and on the Surgical Technology website.

## AAS – Surgical Technology

60 credit hours

### FIRST YEAR

#### First Prerequisite Semester

<u>BIOL</u>	<u>2401</u>	Anatomy and Physiology I <sup>1</sup>
<u>ENGL</u>	<u>1301</u>	Composition I
<u>HPRS</u>	<u>1204</u>	Basic Health Profession Skills
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech</u> Communication (See <u>Speech</u> Options)

#### Second Prerequisite Semester

<u>BIOL</u>	<u>2402</u>	Anatomy and Physiology II
<u>HITT</u>	<u>1305</u>	Medical Terminology I
<u>PSYC</u>	<u>2301</u>	<u>General Psychology</u> <sup>2</sup>
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course

### SECOND YEAR

#### First (Summer) Semester

<u>SRGT</u>	<u>1271</u>	Basic Skills of Surgical Technology
<u>SRGT</u>	<u>1409</u>	Fundamentals of Peri-operative Concepts and Techniques

#### Second Semester

<u>HITT</u>	<u>1303</u>	Medical Terminology II
<u>HPRS</u>	<u>2300</u>	Pharmacology for Health Professions
<u>SRGT</u>	<u>1441</u>	Surgical Procedures I
<u>SRGT</u>	<u>1461</u>	Clinical – Surgical Technology I

#### Third Semester

<u>BIOL</u>	<u>2420</u>	Microbiology for Non-Science Majors
<u>SRGT</u>	<u>1171</u>	Transition to Practice for the Surgical Technologist

SRGT	1442	Surgical Procedures II
SRGT	2130	Professional Readiness
SRGT	2561	Clinical – Surgical Technology II (Capstone)

1. No course substitutions
2. May substitute SOCI 1301

### Certificate Level 1 – Central Sterile Processing

16 credit hours

#### **FIRST YEAR**

##### **First Semester**

HPRS	1470	Central Sterile Processing I
HPRS	1370	Central Sterile Processing II
HPRS	1471	Central Sterile Processing III

##### **Second Semester**

HPRS	1561	Clinical – Health Services/Allied Health/Health Sciences, General (Capstone)
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### Advanced Technical Certificate – Surgical Assisting

34 credit hours

This Advanced Technical Certificate is designed for Surgical Technologists that already have an Associate Degree plus 2 years' experience as a Certified Surgical Technologist.

#### **First Semester**

CSFA	1371	Fundamentals and Surgical Safety
CSFA	2371	Surgical Procedures
CSFA	2472	Suturing, Knot Tying, Hemostasis and Wound Healing
HITT	2435	Coding and Reimbursement Methodologies <sup>1</sup>

#### **Second Semester**

CSFA	1172	Pharmacology and Anesthesia
CSFA	1173	Principles of Surgical Assisting Lab I
CSFA	1175	Perioperative Microbiology and Bioscience
CSFA	2372	Operative Anatomy and Pathophysiology I
CSFA	2473	Surgical Assisting Clinical I

#### **Third Semester**

CSFA	1176	Complications in Surgery
CSFA	2171	Role Definition, Ethical, Legal and Moral Responsibilities
CFSA	2173	Principles of Surgical Assisting Lab II
CFSA	2373	Operative Anatomy and Pathophysiology II
CFSA	2474	Surgical Assisting Clinical II (Capstone)

1. Course may be taken at any time before or during the program

### **VETERINARY TECHNOLOGY**

#### **Program Options:**

##### **AAS – Veterinary Technology**

The Veterinary Technology program is designed to give students the knowledge and skills needed to work in veterinary clinics, animal hospitals, and animal shelters, performing basic nursing care for the animals, providing dental cleanings, assisting in surgery, producing x-rays, and assisting the Doctor of Veterinary Medicine (DVM). The knowledge and skills competencies included in the curriculum allow the students to demonstrate basic restraint and treatment techniques for domestic animals, identify breeds of animals, and learn the responsibilities of a licensed veterinary technician in a veterinary practice including physical exams, basic care, feeding, sanitation, and public and/or client relations.

In addition, students will gain skills that are specific to the pharmacological and surgical areas. The competencies in the pharmacological area will allow the students to be able to successfully execute procedures such as the ability to identify, prepare, label, package, and dispense pharmaceuticals in an ethical/legal manner, calculate dosages using proper weights, units, and measures, and use appropriate routes and methods of drug administration; and differentiate between normal and abnormal animal patient responses to medication. In the surgical area, the competencies in the curriculum will help students be able to identify instruments used in veterinary surgery, demonstrate operating room etiquette and the use of sterile technique, perform pre-anesthesia evaluation, administer and monitor anesthesia, and provide post-anesthesia care, recognize and respond appropriately to animal patient emergencies, and assist with routine surgical and obstetrical procedures. Communication competencies have also been integrated into the curriculum so that the students can proficiently define and use veterinary terms and employ effective client and veterinary team communication. The combination of these competencies allows the student to graduate with the mastery needed to be successful in the veterinary technology field.

#### **SELECTIVE ADMISSION REQUIREMENTS**

Admission to the Veterinary Technology Program is selective. Admission to Collin College does not guarantee admission to the Veterinary Technology Program. Registration and enrollment are by permission only. Information and applications may be obtained from the Veterinary Technology department or the Veterinary Technology website:

<http://www.collin.edu/department/vettech/>.

- Applicant must have a high school diploma or its equivalent (i.e. GED).

- Applicants must be enrolled in Collin College. Admission to Collin College does not guarantee admissions to the Veterinary Technology Program.
- Applicants must meet, review, and sign the Technical Standards required by the program. All applicants must submit a signed “Technical Standards” form with their application.
- Complete prerequisite courses with a “C” or better. For a list of the prerequisite courses please visit the Veterinary Technology website.
- Applicants are required to complete at least 40 hours of clinical experience. Clinical Experience MUST be under the supervision of a Licensed Veterinary Technician (LVT) or Doctor of Veterinary Medicine (DVM). Clinical experience may be paid or volunteer (working, shadowing, or observation in a veterinary clinic or hospital). Once hours are completed, a Veterinary Technology Work Experience form will need to be filled out and signed by the supervising LVT or DVM. A form will be needed for each location used to complete the 40 hours. Completed forms must be submitted with the application form.
- Informed applicants make better candidates! Become informed about the Veterinary Technology program by attending one of the information sessions listed on the veterinary technology website. Following the information, session applicants must complete an information session verification post quiz. Applicants will be directed to a link for this quiz at the conclusion of each information session. A copy of the quiz will need to be printed and submitted with the student’s application form.
- Complete the Veterinary Technology Program Application Form.
- A mandatory criminal background check and drug screening will be required prior to enrollment of all selected applicants.
- Applicants will also have to produce proof of Tdap vaccination. Additional rabies vaccination documentation will also be required if the individual is accepted into the program.

#### LICENSURE NOTICE

Applicants with a criminal record will need an evaluation from the Texas Board of Veterinary Medical Examiners. For additional information please see [www.veterinary.texas.gov/forms.php](http://www.veterinary.texas.gov/forms.php). Students who have been involved in the criminal system, please be advised that your background could keep you from being licensed by the State of Texas.

#### 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 technical standards documents provided in the program information on the Veterinary Technology website <http://www.collin.edu/department/vettech/>. 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 veterinary technology students are required to show proof of health insurance prior to starting course work each semester.

#### AAS – Veterinary Technology

60 credit hours

#### PREREQUISITES

<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
<u>MATH</u>	<u>1314</u>	<u>College Algebra</u>
<u>BIOL</u>	<u>1406</u>	<u>Biology for Science Majors I</u>

#### FIRST YEAR

##### First Semester

<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u>
VTHT	1301	Introduction to Veterinary Technology
VTHT	1105	Veterinary Medical Terminology
VTHT	2321	Veterinary Parasitology
VTHT	1313	Veterinary Anatomy and Physiology

##### Second Semester

<u>GEN ED</u>		<u>Social/Behavioral Sciences</u> course
VTHT	1217	Veterinary Office Management
VTHT	2201	Canine and Feline Clinical Management
VTHT	2323	Veterinary Clinical Pathology I

#### SECOND YEAR

##### First Semester

VTHT	1249	Veterinary Pharmacology
VTHT	1280	Cooperative Education - Veterinary/Animal Health Technology/Technician and Veterinary Assistant
VTHT	2331	Veterinary Clinical Pathology II

##### Second Semester

VTHT	1245	Veterinary Radiology
VTHT	1341	Anesthesia and Surgical Assistance
VTHT	2325	Large Animal Assisting Techniques
VTHT	2213	Lab Animal Clinical Management

##### Third Semester

VTHT	2205	Equine Clinical Management
VTHT	2439	Veterinary Nursing Care
VTHT	2280	Cooperative Education - Veterinary/Animal Health



		Technology/Technician and Veterinary Assistant
VTHT	1271	Veterinary Technician National Examination (VTNE) Prep Course (Capstone)

## **VIDEO PRODUCTION**

*Also see [Animation](#) workforce program.*

### **Department Website:**

<http://www.collin.edu/department/communicationdesign/index.html>

### **Program Options:**

#### **AAS – Video Production**

##### **Certificate Level 1 – Video Production**

Are you good at telling stories? Do you love movies, TV shows, or streamed entertainment? Then join the Video Production program to learn how to make your cinematic vision a reality with a certificate or degree.

The Video Production program focuses on preproduction, production and postproduction skills necessary for creating digital video content in any delivery format. You will learn script writing, storyboarding, video production with cameras, audio and lighting, as well as nonlinear editing using industry-standard tools and techniques.

Collin College's Video Production program prepares individuals for a career in the TV, film, and other media opportunities. The 60 hour AAS degree or the 42 hour certificate will prepare you to apply for jobs as an editor, cinematographer, influencer, screenwriter and more.

#### **AAS – Video Production**

60 credit hours

### **FIRST YEAR**

#### **First Semester**

ARTC	1325	Introduction to Computer Graphics
ARTV	1371	Storyboard and Concept Development
DRAM	2366	Film Appreciation
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
RTVB	1329	Scriptwriting

#### **Second Semester**

ARTV	1303	Basic Animation
ARTV	1351	Digital Video
FLMC	1331	Video Graphics and Visual Effects I
FLMC	2334	Directing for Film and Video
FLMC	2336	Production Development - Producing

### **SECOND YEAR**

#### **First Semester**

ARTV	2320	Team Program Production I
FLMC	2333	Cinematography

RTVB	2330	Film and Video Editing
RTVB	2347	Electronic Media Business Management
<u>GEN ED</u>		<u>Mathematics/Natural Sciences</u> course

#### **Second Semester**

FLMC	2331	Video Graphics and Visual Effects II
RTVB	2340	Portfolio Development (Capstone)
<u>GEN ED</u>		<u>Humanities/Fine Arts</u> course
<u>GEN ED</u>		<u>Social/Behavioral Sciences</u> course
<u>SPCH</u>	<u>1311</u>	<u>Introduction to Speech Communication</u> (See <a href="#">Speech</a> Options)

## **Certificate Level 1 – Video Production**

42 credit hours

### **FIRST YEAR**

#### **First Semester**

ARTC	1325	Introduction to Computer Graphics
ARTV	1371	Storyboard and Concept Development
RTVB	1329	Scriptwriting

#### **Second Semester**

ARTV	1303	Basic Animation
ARTV	1351	Digital Video
FLMC	1331	Video Graphics and Visual Effects I
FLMC	2336	Production Development - Producing

### **SECOND YEAR**

#### **First Semester**

ARTV	2320	Team Program Production I
FLMC	2333	Cinematography
FLMC	2334	Directing for Film and Video
RTVB	2330	Film and Video Editing

#### **Second Semester**

FLMC	2331	Video Graphics and Visual Effects II
RTVB	2340	Portfolio Development (Capstone)
RTVB	2347	Electronic Media Business Management

## **WEB AND MOBILE DEVELOPMENT**

### **Program Options:**

#### **AAS – Web and Mobile Development**

#### **OSA – Web Foundation**

#### **OSA – JavaScript Development**

#### **OSA – .Net Web Development**

#### **Certificate Level 1 – Full-stack Web Developer**

#### **Certificate Level 1 – Front-end Web Developer**

#### **Certificate Level 2 – Mobile Application Developer**

With the global impact of web and mobile technologies, interactive web and mobile technology professionals are in demand. The Web and Mobile Development Program prepares students for this role, teaching them to create responsive websites, and web and mobile applications.

This degree program offers front-end web development, back-end web development, and hybrid mobile



development. Front-end web development focuses on developing the web pages that are viewed in a browser, while back-end web development deals with server-side technologies and connecting to databases. Hybrid mobile development uses web languages to create mobile applications that can run on many different mobile devices.

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

Web and mobile skills offered in our degrees include HTML, CSS, CSS Frameworks (Bootstrap), JavaScript, JavaScript Frameworks (jQuery, REACT, NodeJS, and others), C#.NET, PHP and Python. We also offer skills in using GIT repositories, troubleshooting and testing code, current industry development cycles, and best practices in web and mobile accessibility and usability.

Students planning to transfer to a college or university should check with Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

### AAS – Web and Mobile Development

60 credit hours

#### **FIRST YEAR**

##### **First Semester**

COSC	1315	Introduction to Computer Programming <sup>1</sup>
<u>ENGL</u>	<u>1301</u>	<u>Composition I</u>
ITSE	1301	Web Design Tools - Graphics
ITSE	1311	Beginning Web Programming
<u>GEN ED</u>		<u>Mathematics</u> course <sup>2</sup>

##### **Second Semester**

IMED	1341	Interface Design
ITNW	1358	Network+
ITSE	1330	Introduction to C# Programming
ITSE	1359	Introduction to Scripting Languages – Python <sup>3</sup>
ITSE	2302	Intermediate Web Programming
ITSE	2309	Database Programming – SQL

##### **Summer Semester**

<u>GEN ED</u>	See <a href="#">Social/Behavioral Sciences</a> course
<u>GEN ED</u>	<a href="#">Humanities/Fine Arts</a> course

#### **SECOND YEAR**

##### **First Semester**

ITSE	1306	PHP Programming
ITSE	1333	Mobile Applications Development
ITSE	2353	Advanced C# Programming
<u>GEN ED</u>		<u>Speech</u> course

#### **Second Semester**

INEW	2334	Advanced Web programming
ITSE	2374	Web and Mobile Application Development (Capstone) <sup>4</sup>
Elective*		

\* *Elective (3 credit hours) Choose one course from the following:*

*Front-end Development: ITSE 2313*

*Back-end Development: ITSC 1316, ITSE 2347*

*Mobile Development: ITSE 1373, ITSE 2310, ITSE 2343 or IMED 1366*

*1. May substitute COSC 1436*

*2. May substitute Math 1314 or Math 1324 or Math 1332*

*3. May substitute COSC 1437*

*4. May substitute ITSC 2380*

### OSA – Web Foundation

12 credit hours

IMED	1341	Interface Design
ITSE	1301	Web Design Tools – Graphics
ITSE	1311	Beginning Web Programming
ITSE	2302	Intermediate Web Programming

### OSA – JavaScript Development

9 credit hours

ITSE	1311	Beginning web Programming
ITSE	2302	Intermediate Web Programming
INEW	2334	Advanced Web Programming

### OSA – .Net Web Development

12 credit hours

COSC	1315	Introduction to Computer Programming
ITSE	1311	Beginning Web Programming
ITSE	1330	Introduction to C# Programming
ITSE	2353	Advanced C# Programming

### Certificate Level 1 – Full-stack Web Developer

42 credit hours

#### **First Summer Semester**

COSC	1315	Introduction to Computer Programming
ITSE	1311	Beginning Web Programming

#### **First Semester**

IMED	1341	Interface Design
ITNW	1358	Network++
ITSE	1301	Web Designing Tools – Graphics
ITSE	1330	Introduction to C# Programming
ITSE	1359	Introduction to Scripting Languages – Python
ITSE	2302	Intermediate Web Programming

**Second Semester**

INEW	2334	Advanced Web Programming
ITSE	1306	PHP Programming
ITSE	2309	Database Programming – SQL
ITSE	2353	Advanced C# Programming
Elective*		

**Second Summer Semester**

ITSE	2374	Web and Mobile Application Development (Capstone) <sup>1</sup>
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*Elective\* (3 credit hours) : ITSC 1316, ITSE 2313, ITSE 1333*

1. *May substitute ITSC 2380*

**Certificate Level 1 – Front-end Web Developer**

18 credit hours

**Summer Semester**

ITSE	1311	Beginning Web Programming
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**First Semester**

IMED	1341	Interface Design
ITSE	1301	Web Design Tools – Graphics
ITSE	2302	Intermediate Web Programming

**Second Semester**

ITSE	2313	Web Authoring <sup>1</sup>
ITSE	2374	Web and Mobile Application Development (Capstone) <sup>2</sup>

1. *May substitute INEW 2334*

2. *May substitute ITSC 2380*

**Certificate Level 2 – Mobile Application Developer**

27 credit hours

*Students must be TSI complete.*

**First Summer Semester**

COSC	1315	Introduction to Computer Programming <sup>1</sup>
ITSE	1311	Beginning Web Programming

**First Semester**

IMED	1341	Interface Design
ITSE	1330	Introduction to C# Programming
ITSE	2302	Intermediate Web Programming

**Second Semester**

INEW	2334	Advanced Web Programming <sup>2</sup>
ITSE	1333	Mobile Applications Development
ELECTIVE*		

**Second Summer Semester**

ITSE	2343	Advanced Mobile programming (Capstone) <sup>3</sup>
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*\*Elective (3 credit hours): ITSE 1373, ITSE 2309, or ITSE 2310*

1. *May substitute COSC 1436*

2. *May substitute COSC 1437*

3. *May substitute ITSC 2380 or ITSE 2374*

**WELDING**

*Also see [Metal Arts workforce program](#).*

**Program Options:****AAS – Welding****Certificate Level 1 - Entry Welding Certification****Certificate Level 1 - Gas Shielded Welding Certification****Certificate Level 2 - Welding Technology Certification**

Welding is a craft that is highly valued in both the industrial world and artistic worlds. Welders who graduate from Collin College's program will be prepared to earn a job or go into business for themselves, providing a service that is always in high demand.

Collin College offers an associate of applied science in Welding, two level 1 certificates, and one level 2 certificate. The AAS will allow you to earn a degree in Welding, while the certificates are designed to qualify you in specific processes such as Entry Welding, Gas Shielded Welding, and Welding Technology.

If your program requires a criminal background check, your placement in a required clinical site, cooperative, practicum, internship, and/or licensure/certification opportunity may be impacted. If you have any questions or concerns, please contact your program director and check with your licensing/certifying entity, if any, to determine your status.

The Welding program will be housed at the Plano campus in room A185. The department has a foundry and TIG, MIG and stick welders.

Students planning to transfer to a college or university should check with the Collin College academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability

**AAS – Welding**

60 credit hours

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

- WLDG 1307 Introduction to Welding Using Multiple Processes  
 WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW)

**Second 8 Weeks**

- WLDG 1430 Introduction to Gas Metal Arc Welding (GMAW)  
 WLDG 1434 Introduction to Gas Tungsten Arc (GTAW) Welding

**Second Semester****First 8 Weeks**

- WLDG 1317 Introduction to Layout and Fabrication  
 WLDG 2447 Advanced Gas Metal Arc Welding (GMAW)

**Second 8 Weeks**

- WLDG 1313 Introduction to Blueprint Reading for Welders  
 WLDG 2451 Advanced Gas Tungsten Arc Welding (GTAW)

**SECOND YEAR****First Semester****First 8 Weeks**

- WLDG 1435 Introduction to Pipe Welding  
 WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW)

**Second 8 Weeks**

- SPCH 1321 Business and Professional Communication (See Speech options)  
 WLDG 2453 Advanced Pipe Welding<sup>1</sup>

**Second Semester**

- ENGL 1301 Composition I  
 GEN ED Mathematics course  
 GEN ED Humanities/Fine Arts course  
 GEN ED Social/Behavioral Sciences course  
 WLDG 2435 Advanced Layout and Fabrication<sup>2</sup> (Capstone)

1. May substitute WLDG 2450

2. May substitute WLDG 2480, with consent Director

**Certificate Level 1 – Entry Welding Certification**

15 credit hours

**FIRST YEAR****First Semester****First 8 Weeks**

- WLDG 1307 Introduction to Welding Using Multiple Processes  
 WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW)

**Second 8 Weeks**

- WLDG 1430 Introduction to Gas Metal Arc Welding (GMAW)

- WLDG 1434 Introduction to Gas Tungsten Arc (GTAW) Welding (Capstone)

**Certificate Level 1 – Gas Shielded Welding****Certification**

29 credit hours

**FIRST YEAR****First Semester****First 8 Weeks**

- WLDG 1307 Introduction to Welding Using Multiple Processes  
 WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW)

**Second 8 Weeks**

- WLDG 1430 Introduction to Gas Metal Arc Welding (GMAW)  
 WLDG 1434 Introduction to Gas Tungsten Arc (GTAW) Welding

**Second Semester****First 8 Weeks**

- WLDG 1317 Introduction to Layout and Fabrication  
 WLDG 2447 Advanced Gas Metal Arc Welding (GMAW)

**Second 8 Weeks**

- WLDG 1313 Introduction to Blueprint Reading for Welders  
 WLDG 2451 Advanced Gas Tungsten Arc Welding (GTAW) (Capstone)

**Certificate Level 2 – Welding Technology****Certification**

44 credit hours

*Students must be TSI complete.*

**FIRST YEAR****First Semester****First 8 Weeks**

- WLDG 1307 Introduction to Welding Using Multiple Processes  
 WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW)

**Second 8 Weeks**

- WLDG 1430 Introduction to Gas Metal Arc Welding (GMAW)  
 WLDG 1434 Introduction to Gas Tungsten Arc (GTAW) Welding

**Second Semester****First 8 Weeks**

- WLDG 1317 Introduction to Layout and Fabrication  
 WLDG 2447 Advanced Gas Metal Arc Welding (GMAW)

**Second 8 Weeks**

WLDG 1313 Introduction to Blueprint Reading for Welders  
WLDG 2451 Advanced Gas Tungsten Arc Welding (GTAW)

**Third Semester****First 8 Weeks**

WLDG 1435 Introduction to Pipe Welding

WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW)

**Second 8 Weeks**

SPCH 1321 Business and Professional Communication (See [Speech](#) options)  
WLDG 2453 Advanced Pipe Welding <sup>1</sup> (Capstone)

*1. May substitute WLDG 2450*

## BACCALAUREATE EDUCATION PROGRAMS

### BACCALAUREATE DEGREE PLANS BY PROGRAM

#### CYBERSECURITY

##### **Program Option: Bachelor of Applied Technology (BAT) in Cybersecurity**

With high-profile information breaches and identity thefts in the news regularly, the need to secure data and the systems that store it has never been more important. Play your part in keeping important information safe with a certificate or degree from Collin College's Information Systems Cybersecurity program.

Building on a strong networking and operating systems foundation that provides students with the prerequisite knowledge to be successful in cybersecurity, the BAT in Cybersecurity provides students with a hands-on program covering multiple aspects of cybersecurity including penetration testing, defensive operations, basic cryptography, privacy, cybercrime, and cyber policy.

#### **ADMISSIONS REQUIREMENTS**

Admission to the BAT-Cybersecurity Program is selective. Admission to the college does not guarantee admission to the BAT-Cybersecurity Program. Registration into upper division courses is by departmental permission only. Information and applications may be obtained from the BAT-Cybersecurity website: <https://www.collin.edu/department/cybersecurity/index.html>.

- Complete an associate degree in Information Security/Information Systems Cybersecurity (AAS) or closely related degree from an accredited educational institution
- Complete an application for admission to Collin College
- Submit official transcripts from all colleges/universities
- Once a CWID has been provided, complete a Request for Transfer Credit Evaluation (in Cougarweb under Home Tab)
- Complete departmental admissions requirements per departmental communication
- Attend the mandatory BAT-Cybersecurity student orientation prior to enrollment

- Submit a completed Ethical Obligation form prior to enrollment

The academic records of students completing the admissions requirements will be reviewed by the department for specific coursework that can be transferred into Collin College and applied toward the BAT-Cybersecurity degree program. Students will either be admitted into the BAT program or not admitted into the BAT program and directed to work with academic advisors to devise a plan for how to complete the required coursework necessary to be admitted to the BAT program.

#### BAT – Cybersecurity

120 credit hours

*Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC, and ITSY courses are offered in eight-week express sessions.*

#### **FIRST YEAR - AAS**

##### **First Semester**

CPMT 1305 IT Essentials I: PC Hardware and Software

##### ELECTIVE\*

ITMT 1372 Installation, Storage and Computing With Windows Server 2016

ITNW 1358 Network +

MATH 1342 Elementary Statistical Methods  
(See [Mathematics Options](#))

##### **Second Semester**

ITCC 1314 CCNA 1: Introduction to Networks  
ITMT 1373 Networking with Windows Server 2016  
ITSC 1316 Linux Installation and Configuration  
ITSY 1300 Fundamentals of Information Security (Security +)  
ITSY 2300 Operating System Security

#### **SECOND YEAR -AAS**

##### **First Semester**

ENGL 1301 Composition I  
ITCC 1344 CCNA 2: Switching, Routing, and Wireless Essentials  
ITSY 2301 Firewalls and Network Security  
ITSY 2342 Incident Response and Handling  
SPCH 1321 Business and Professional Communication (See [Speech](#) options)

##### **Second Semester**

ECON 2302 Principles of Microeconomics (See [Social/Behavioral Sciences](#) options)  
ITSE 1359 Introduction to Scripting Languages – Python

ITSY	2341	Security Management Practices
ITSY	2343	Computer System Forensics
PHIL	2303	<u>Introduction to Formal Logic</u> (See <a href="#">Humanities</a> options)

### THIRD YEAR - BAT

#### First Semester

CYBR	3310	Introduction to Cryptography
CYBR	3320	Digital and Device Forensics
CYBR	3330	Advanced Network Topologies and Protocols
PHYS	1415	<u>Physical Science I</u> (See <a href="#">Life &amp; Physical Sciences</a> options)
EDUC	1100	<u>Learning Framework</u> (See <a href="#">Collin</a> options)

#### Second Semester

CYBR	3340	Cyber Crime
CYBR	3350	Cyber Privacy
CYBR	3360	Mobile Technologies
CYBR	4310	Penetration Testing
PHYS	1405	<u>Conceptual Physics</u> (See <a href="#">Life &amp; Physical Sciences</a> options)

### FOURTH YEAR - BAT

#### First Semester

CYBR	4320	Cyber Defense Operations
CYBR	4330	Virtualization and Cloud Security
ENGL	2311	<u>Technical and Business Writing</u>
HIST	1301	<u>United States History I</u> (See <a href="#">American History</a> options)
GOVT	2305	<u>Federal Government (Federal constitution and topics)</u>

#### Second Semester

CYBR	4340	Information Assurance
CYBR	4350	Senior Project
GEN ED		<a href="#">Creative Arts</a> course
GOVT	2306	<u>Texas Government (Texas constitution and topics)</u>
HIST	1302	<u>United States History II</u> (See <a href="#">American History</a> options)

\* *Elective (3 credit hours): any CPMT, ITCC, ITMT, ITNW, ITSC, or ITSY course not listed above.*

### RN-TO-BSN PROGRAM

#### Department website:

[http://www.collin.edu/academics/programs/NURS\\_BSN.html](http://www.collin.edu/academics/programs/NURS_BSN.html)

#### Program Option:

#### Bachelor of Science in Nursing (BSN)

#### RN-to-BSN

Advance: your Degree- your Career- your Life.

The RN- to- BSN is a post licensure program designed to prepare the students with an understanding of: nursing, health and healing, the environment, and persons as diverse individuals, families, populations, and communities.

The RN –to- BSN program will educate baccalaureate-prepared nurses to:

- Be life-long learners
- Be actively involved in service to the community
- Provide leadership
- Promote quality of life
- Be members of an interdisciplinary health care team, using clinical judgment to provide safe, evidence-based, patient-centered care.

The graduate of the Collin College RN-to-BSN Program is prepared to:

- Apply concepts from liberal arts to nursing practice
- Demonstrate leadership behaviors that enhance patient safety and quality care
- Apply research-based evidence to nursing practice
- Integrate technology to support clinical decision making in patient-centered care
- Examine healthcare policy and financial/regulatory environments that influence the delivery of healthcare
- Foster caring and collaborative relationships with self, patient, and the healthcare community that provide positive outcomes
- Practice culturally congruent care that addresses health promotion and disease prevention
- Assimilate ethical principles and professional standards into practice using evidence-based clinical judgment
- Apply age-specific knowledge to provide safe, competent care across the lifespan.
- Pursue lifelong learning as a means to enhance practice

A Bachelor of Science in Nursing (BSN) will be awarded based upon achieving satisfactory score(s) of all courses.

### 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 <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.

### 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.

### FINANCIAL RESPONSIBILITIES

Students assume financial responsibility for: tuition, fees, books, uniforms, immunizations, transportation (may include clinical parking passes), clinical accessories/equipment, drug testing, health coverage, testing and tutorial software, and personal computers.

### ADMISSIONS REQUIREMENTS

Admission to the Nursing RN-to-BSN Program is selective. Admission to the college does not guarantee admission to the RN-to-BSN Program. Registration into upper division courses is by permission only. Information and applications may be obtained from the Nursing Office or the Nursing website: <http://www.collin.edu/nursing>.

- Complete an application for admission to Collin College
- Submit official transcripts from all colleges/universities and/or a diploma from a school of nursing
- Complete an associate's degree in nursing from an accredited educational institution or hold a diploma from a school of nursing
- Minimum overall grade point average of 2.5 on a 4.0 scale (NGPA- Nursing cumulative coursework): 2.5 in BIOL 2401 (Anatomy and Physiology I); BIOL 2402 (Anatomy and Physiology II); BIOL 2420 (Microbiology)
- Must be within six (6) credit hours of completion of the Texas Common Core Curriculum (*at time of application*): All general education courses and prerequisite course work must be completed prior to registering for upper division Nursing courses.
- Must hold a current Texas unencumbered RN License or an enhanced nurse license compact (eNLC)-multi state license
- Criminal background checks and drug screenings must be completed prior to enrollment into the nursing courses. Each student is responsible for the costs and fees. Students will be required to use the approved vendor for Collin College Nursing Division to process background checks. Only those individuals with a valid RN license

with no stipulations will be allowed to apply to the program.

- Attend mandatory new RN-to-BSN student orientation
- Professional liability insurance coverage (fee will be added as mandatory fee at time of registration)
- Purchase uniforms, equipment, and medical equipment for clinical experiences
- Provide nursing department a copy of health insurance information and driver's license prior to clinical rotations and update as needed
- Successful completion of drug screen, background check, and physical/mental competencies.
- Submit a current basic life support (BLS) for the healthcare provider certification
- Current physical examination documentation
- Provide documentation of a current negative TB test
- Show positive titer immunizations required by the Texas Department of State Health Services (TDSHS)

Immunization Requirements	
VACCINE	When Required
Vaccine Measles, Mumps & Rubella (MMR)	Blood titer ONLY (you must provide actual lab that illustrates positive immunity)
Biology Tetanus-Diphtheria (Tdap)	Tetanus-Diphtheria-Pertussis (within last ten years); NOTE This is not Td or DTap
Hepatitis B series	Blood titer ONLY (you must provide actual lab that illustrates positive immunity)
Varicella	Blood titer ONLY (Serologic confirmation of immunity is accepted)
Tuberculosis Screening	You are required to submit an Intradermal PPD (Mantoux) or Quanteferon blood test every 12 months, unless previously positive. PPD documentation must include date placed, date read an mm induration (even if it is 0mm). If positive, a chest X-ray alone is not acceptable
Flu vaccination	Required during flu season – Usually September to April

#### Prior to Enrollment:

Students who will be earning a baccalaureate degree from Collin College MUST satisfy ALL course work requirements of the Texas core curriculum. Collin College

will ensure students transferring into the RN-to-BSN program have completely met the core objectives defined by the Texas Higher Education Coordinating Board which encompasses the 42 semester credit hour requirement. Academic advisors are available at each campus to assist students in evaluation of prior course work and selection of equivalent courses. The following semester hours must be completed prior to enrollment in upper-division nursing courses.

### Full-time RN-to-BSN Schedule

**Prerequisites\* Must hold a current Texas unencumbered RN License or an enhanced nurse license compact (eNLC)-multi state license**

		Credit Hours
BIOL 2401	Anatomy & Physiology I w/lab <sup>1,2</sup>	4
BIOL 2402	Anatomy & Physiology II w/lab <sup>1,2</sup>	4
BIOL 2420	Microbiology for Non-Science Majors w/lab <sup>1,3</sup>	4
ENGL 1301	Composition I <sup>1</sup>	3
ARTS 1301	Art Appreciation (or other Creative Arts core) <sup>4</sup>	3
PSYC 2301	General Psychology <sup>1</sup>	3
PSYC 2314	Life-Span Growth and Development <sup>1</sup>	3
<b>Additional Program Requirements:</b>		
ENGL 1302	Composition II <sup>1</sup>	3
HIST 1301	United History I <sup>5</sup>	3
HIST 1302	United History II <sup>5</sup>	3
GOVT 2305	Federal Government	3
GOVT 2306	Texas Government	3
PHIL 2306	Intro to Ethics (or other Language/Philosophy/Culture core) <sup>6</sup>	3
SPCH 1321	Business and Professional Speaking (or SPCH 1311 or 1315)	3
MATH 1342	Elementary Statistical Methods (or other Mathematics core) <sup>1</sup>	3
BIOL 1322	Nutrition	3
CHEM 1405	Introduction to Chemistry w/lab or CHEM 1411 w/lab <sup>1</sup>	4
	<b>Total</b>	<b>55</b>

#### **Lower Division Transfer Nursing Coursework**

*Will accept up to 36 credit hours from a diploma or Associate Degree in Nursing*

**Total 36**

#### **RN-to-BSN Degree Track:**

##### **First Semester**

NURS 3220	Health Promotion Across Lifespan	2
NURS 3330	Ethics in Health Care	3
NURS 3340	Population-focused Community Health I/Clinical	3
NURS 3210	Transitions to the BSN Role	2
NURS 3450	Advanced Health Assessment/Clinical	4
	<b>Total</b>	<b>14</b>

##### **Second Semester**

NURS 4115	Healthcare Organization	1
NURS 4235	Health Care Quality	2
NURS 4345	Population-Focused Community Health II/Clinical	3
NURS 4355	Research and Evidence-Based Practice	3
NURS 4465	Leadership and Management/Clinical	4
NURS 4225	Nursing Informatics	2
	<b>Total</b>	<b>15</b>

**Total Degree Credit Hours 120**

<sup>1</sup> Course must be completed with a grade of C or above prior to enrolling in the nursing program

<sup>2</sup> No course substitutions or CLEP credit

<sup>3</sup> May substitute BIOL 2421

<sup>4</sup> Options include: ARTS 1301, 1303, 1304, 1313; DANC 2303; DRAM 1310, 2361, 2362, 2366; MUSI 1306, 1307 or 1310

<sup>5</sup> Must complete six (6) hours from the following options: HIST 1301, 1302, 2301

<sup>6</sup> PHIL 2306 is preferred. Other options include: ENGL 2322, 2323, 2327, 2328, 2332, 2333, or 2341; HIST 2311, 2312, 2321, 2322; HUMA 1301; PHIL 1301, 1304, 2307, 2321

<sup>†</sup> To be eligible to graduate with a BSN degree from Collin College, all students must complete a minimum of 25% of the coursework (30 SCH) required for the 120 SCH degree in residence at Collin College. Any transfer student entering the program having completed a) the Texas Core Curriculum and b) the Additional Degree Requirements outside of Collin College will be one (1) semester credit hour short of meeting this graduation requirement. In order to complete this requirement, a student may choose to take any credit course that has not been used to fulfill another degree requirement. The Nursing division recommends choosing from among the options: EDUC 1100, 1300; KINE 1164, 1304, 1338 (one semester credit hour is needed).

### Part-time RN-to-BSN Schedule

**Prerequisites\* Must hold a current Texas unencumbered RN License or an enhanced nurse license compact (eNLC)-multi state license**

		Credit Hours
BIOL 2401	Anatomy & Physiology I w/lab <sup>1,2</sup>	4
BIOL 2402	Anatomy & Physiology II w/lab <sup>1,2</sup>	4
BIOL 2420	Microbiology for Non-Science Majors w/lab <sup>1,3</sup>	4
ENGL 1301	Composition I <sup>1</sup>	3
ARTS 1301	Art Appreciation (or other Creative Arts core) <sup>4</sup>	3
PSYC 2301	General Psychology <sup>1</sup>	3
PSYC 2314	Life-Span Growth and Development <sup>1</sup>	3
<b>Additional Program Requirements:</b>		
ENGL 1302	Composition II <sup>1</sup>	3
HIST 1301	United History I <sup>5</sup>	3
HIST 1302	United History II <sup>5</sup>	3
GOVT 2305	Federal Government	3
GOVT 2306	Texas Government	3
PHIL 2306	Intro to Ethics (or other Language/Philosophy/Culture core) <sup>6</sup>	3
SPCH 1321	Business and Professional Speaking (or SPCH 1311 or 1315)	3
MATH 1342	Elementary Statistical Methods (or other Mathematics core) <sup>1</sup>	3
BIOL 1322	Nutrition	3
CHEM 1405	Introduction to Chemistry w/lab or CHEM 1411 w/lab <sup>1</sup>	<u>4</u>
	<b>Total</b>	<b>55</b>

#### **Lower Division Transfer Nursing Coursework**

*Will accept up to 36 credit hours from a diploma or Associate Degree in Nursing*

**Total 36**

#### **RN-to-BSN Degree Track :**

##### **First Semester**

NURS 3210	Transitions to the BSN Role	2
NURS 3220	Health Promotion Across Lifespan	2
NURS 3450	Advanced Health Assessment/Clinical	<u>4</u>
	<b>Total</b>	<b>8</b>

##### **Second Semester**

NURS 4115	Healthcare Organization	1
NURS 4235	Health Care Quality	2
NURS 3340	Population-focused Community Health I/Clinical	<u>3</u>
	<b>Total</b>	<b>6</b>

##### **Third Semester**

NURS 3330	Ethics in Health Care	3
NURS 4345	Population-focused Community Health II/Clinical	<u>3</u>
	<b>Total</b>	<b>6</b>

##### **Fourth Semester**

NURS 4225	Nursing Informatics	2
NURS 4355	Research and Evidence-based Practice	3
NURS 4465	Leadership and Management/Clinical	<u>4</u>
	<b>Total</b>	<b>9</b>

**Total Degree Credit Hours 120**

<sup>1</sup> Course must be completed with a grade of C or above prior to enrolling in the nursing program

<sup>2</sup> No course substitutions or CLEP credit

<sup>3</sup> May substitute BIOL 2421

<sup>4</sup> Options include: ARTS 1301, 1303, 1304, 1313; DANC 2303; DRAM 1310, 2361, 2362, 2366; MUSI 1306, 1307 or 1310

<sup>5</sup> Must complete six (6) hours from the following options: HIST 1301, 1302, 2301

<sup>6</sup> PHIL 2306 is preferred. Other options include: ENGL 2322, 2323, 2327, 2328, 2332, 2333, or 2341; HIST 2311, 2312, 2321, 2322; HUMA 1301; PHIL 1301, 1304, 2307, 2321

<sup>†</sup> To be eligible to graduate with a BSN degree from Collin College, all students must complete a minimum of 25% of the coursework (30 SCH) required for the 120 SCH degree in residence at Collin College. Any transfer student entering the program having completed a) the Texas Core Curriculum and b) the Additional Degree Requirements outside of Collin College will be one (1) semester credit hour short of meeting this graduation requirement. In order to complete this requirement, a student may choose to take any credit course that has not been used to fulfill another degree requirement. The Nursing division recommends choosing from among the options: EDUC 1100, 1300; KINE 1164, 1304, 1338 (one semester credit hour is needed).

## COURSE DESCRIPTIONS

### UNDERSTANDING COURSE TYPES AND CREDIT HOURS

#### **COURSE TYPES**

(A) indicates an academic transfer course that may apply to a baccalaureate degree.

(CE) indicates a Continuing Education course that may apply to training or meet licensure and certification requirements for professional development

(D) indicates a developmental pre-college course that does not apply to an associate degree or transfer.

(W) indicates a workforce course that may not transfer or apply to a baccalaureate degree.

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 qualifications. Workforce courses do not always transfer or apply to academic degree programs at four-year colleges and universities. Some programs have transfer or articulation agreements in place to facilitate the transfer of workforce credits. Check with an academic advisor or transfer institution for more information.

#### **COURSE NAMES AND COURSE NUMBERS**

Course names and numbers contain useful information. In the Texas Common Course Numbering System each course is identified by a four-character "rubric" (i.e. discipline abbreviation) and a 4-digit number: The **rubric** is always four upper-case alphabetic characters. The **course number** denotes additional information explained in the table below. The course ACCT 2301 is used to illustrate the system.

#### Rubric → ACCT 2301

Course level = 1<sup>st</sup> digit

0 = pre-college

1 = freshman

2 = sophomore

3 = junior

4 = senior

Credit value = 2<sup>nd</sup> digit

Credit value of the course, expressed in semester hours. Typically credit value ranges from 0-4 semester credit hours (SCH).

Course ID = 3<sup>rd</sup> & 4<sup>th</sup> digits

The course ID is used to uniquely identify the course within the course name.

#### **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 and 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 credit course. Completion of a college-level credit 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.

## **COURSE RUBRICS**

Course descriptions are listed alphabetically by rubrics. Rubrics can be found below and on the following pages, listed by subject and by rubric.

### **ALPHABETIZED SUBJECT LIST**

<b>Subject/Rubric Title</b>	<b>Subject/ Rubric</b>	<b>Subject/Rubric Title</b>	<b>Subject/ Rubric</b>
Accounting/Office Systems	ACNT	Construction Technology - Plumbing	PFPB
Accounting	ACCT	Criminal Justice	CRIJ
Activity Care Professional	GERS	Culinary - Nutrition	IFWA
Agriculture	AGRI	Culinary Arts	CHEF
Air Force ROTC	AERS	Cybersecurity	CYBR
Anthropology	ANTH	Dance	DANC
Applied Mathematics	TECM	Dental Hygiene	DHYG
Arabic	ARAB	Desktop Publishing Word	GRPH
Army ROTC	MILS	Diagnostic Electrocardiography	DSAE
Arts/Photography	ARTS	Diagnostic Medical Sonography	DMSO
Athletic Program Planning	RECL	DMS – Vascular Sonography	DSVT
Automotive Technology	AUMT	Economics	ECON
Biology	BIOL	Education	EDUC
Biotechnology	BITC	Elect/Electronic Comm	EECT
Business - Human Resource	HRPO	Electrical - Circuits	ENGT
Business Administration	BUSI	Electrocardiography	ECRD
Business Management	BMGT	Electronic Engineering	ENTC
Chemistry	CHEM	Electronic Engineering/Equip	INTC
Child Development	CDEC	Electronic Technology	CETT
Child Development/Teaching	TECA	Emergency Medical Servs	EMSP
Chinese	CHIN	Engineering	ENGR
College Success	COSU	Engineering Technology	BIOM
Collision Technology	ABDR	English	ENGL
Comm Design - Anim/Video	FLMC	Environmental Science	ENVR
Comm Design - Animation	ARTV	Environmental Science and Technology	OSHT
Comm Design - Game	GAME	ESL Grammar	ESLG
Comm Design - Graphic	ARTC	ESL Listening/Convers	ESLC
Comm Design - Photo	PHTC	ESL Reading	ESLR
Comm Design - User	UXUI	ESL Skills Development	ESLX
Comm Design - Video	RTVB	ESL Vocabulary	ESLV
Comm/Jour/Spch/Phot	COMM	ESL Writing	ESLW
Comp Aided Drafting/Design	DFTG	Fire Technology	FIRT
Computer Aided Drafting	ARCE	Firefighter	FIRS
Computer Applications	ITSW	French	FREN
Computer Information Systems	ITSC	Geographic Information Systems	GISC
Computer Maintenance Tech	CPMT	Geography	GEOG
Computer Media/Graph Ds	IMED	Geology	GEOG
Computer Networking	ITCC	German	GERM
Computer Networking Tech	ITNW	Government	GOVT
Computer Programming	INEW	Health Info - Medical	HPRS
Computer Science	COSC	Health Info Technology	HITT
Computer Systems Security	ITSY	Heating, Ventilation & Air Conditioning	HART
Computer Systems	BCIS	History	HIST
Computer/Web Programing	ITSE	Hotel - Management	RSTO
Construction Management	CNBT	Hotel - Tourism	TRVM
Construction Technology - Carpentry	CRPT	Hotel/Restaurant Mgmt	HAMG
Construction Technology - Electrical	ELPT	Humanities	HUMA



<b>Subject/Rubric Title</b>	<b>Subject/ Rubric</b>	<b>Subject/Rubric Title</b>	<b>Subject/ Rubric</b>
Industrial Automation	ELMT	Pastry Arts	PSTR
Insurance Management	INSR	Philosophy	PHIL
Integrated Read/Writing	INRW	Physical Education	KINE
Interior & Arch Design	INDS	Physical Science/Physics	PHYS
Interpreter Prep/Deaf	SLNG	Physical Therapist Assistant	PTHA
Italian	ITAL	Phlebotomy	PLAB
Japanese	JAPN	Polysomnographic Technology	PSGT
Kinesiology / Physical Education	KINE	Psychology	PSYC
Law Enforcement/Police Science	CJLE	Real Estate	RELE
Management MSWinSrv	ITMT	Respiratory Care	RSPT
Marketing	MRKG	Robotics	RBTC
Marketing - Business	BUSG	Russian	RUSS
Marketing - International	IBUS	Semiconductor Manufacturing	SMFT
Mathematics	MATH	Sign Language	SGNL
Mathematics Intervention	NCBM	Small Unmanned Aerial Systems	SUAS
Medical Assisting	MDCA	Social Work	SOCW
Music	MUSI	Sociology	SOCI
Music Ensemble	MUEN	Spanish	SPAN
Music, Applied	MUAP	Speech	SPCH
Music, Business	MUSB	Sport and Fitness	FIIT
Music, Commercial	MUSC	Supply Chain Management	LMGT
Music, Commercial Perform	MUSP	Surgical Assisting	CSFA
Nursing - BSN	NURS	Surgical Technology	SRGT
Nursing	RNSG	Theatre/Drama	DRAM
Nurse Assistant/Aide	NURA	Therapeutic Recreation	RECT
Office Admin-Office	POFI	Veterinary Technology	VTHT
Office Systems Tech	POFT	Welding	WLDG
Paralegal/Legal Asstnt	LGLA		

## ALPHABETIZED RUBRIC LIST

Subject/Rubric Title	Subject/ Rubric	Subject/Rubric Title	Subject/ Rubric
Collision Technology	ABDR	Environmental Science	ENVR
Accounting	ACCT	ESL Listening/Convers	ESLC
Accounting/Office Systems	ACNT	ESL Grammar	ESLG
Air Force ROTC	AERS	ESL Reading	ESLR
Agriculture	AGRI	ESL Vocabulary	ESLV
Anthropology	ANTH	ESL Writing	ESLW
Arabic	ARAB	ESL Skills Development	ESLX
Computer Aided Drafting	ARCE	Firefighter	FIRS
Comm Design - Graphic	ARTC	Fire Technology	FIRT
Arts/Photography	ARTS	Sport and Fitness	FITT
Comm Design - Animation	ARTV	Comm Design - Anim/Video	FLMC
Automotive Technology	AUMT	French	FREN
Computer Systems	BCIS	Comm Design - Game	GAME
Biology	BIOL	Geography	GEOG
Engineering Technology	BIOM	Geology	GEOL
Biotechnology	BITC	German	GERM
Business Management	BMGT	Activity Care Professional	GERS
Marketing - Business	BUSG	Geographic Information Sys	GISC
Business Administration	BUSI	Government	GOVT
Child Development	CDEC	Desktop Publishing Word	GRPH
Electronic Technology	CETT	Hotel/Restaurant Mgmt	HAMG
Culinary Arts	CHEF	Heating, Ventilation & Air Con	HART
Chemistry	CHEM	History	HIST
Chinese	CHIN	Health Info Technology	HITT
Law Enforcement/Police Science	CJLE	Health Info - Medical	HPRS
Construction Management	CNBT	Business - Human Resource	HRPO
Comm/Jour/Spch/Phot	COMM	Humanities	HUMA
Computer Science	COSC	Marketing - International	IBUS
College Success	COSU	Culinary - Nutrition	IFWA
Computer Maintenance Tech	CPMT	Computer Media/Graph Ds	IMED
Criminal Justice	CRIJ	Interior & Arch Design	INDS
Construction Technology - Carpentry	CRPT	Computer Programming	INEW
Surgical Assisting	CSFA	Integrated Read/Writing	INRW
Cybersecurity	CYBR	Insurance Management	INSR
Dance	DANC	Electronic Engineering/Equip	INTC
Comp Aided Drafting/Design	DFTG	Italian	ITAL
Dental Hygiene	DHYG	Computer Networking	ITCC
Diagnostic Medical Sonography	DMSO	Management MSWinSrv	ITMT
Theatre/Drama	DRAM	Computer Networking Tech	ITNW
Diagnostic Electrocardiography	DSAE	Computer Information Sys	ITSC
DMS - Vascular Sonography	DSVT	Computer/Web Programming	ITSE
Economics	ECON	Computer Applications	ITSW
Electrocardiography	ECRD	Computer Syst Security	ITSY
Education	EDUC	Japanese	JAPN
Elect/Electronic Comm	EECT	Kinesiology / Physical Education	KINE
Industrial Automation	ELMT	Paralegal/Legal Asstnt	LGLA
Construction Technology - Electrical	ELPT	Supply Chain Management	LMGT
Emergency Medical Servs	EMSP	Mathematics	MATH
English	ENGL	Medical Assisting	MDCA
Engineering	ENGR	Army ROTC	MILS
Electrical - Circuits	ENGT	Marketing	MRKG
Electronic Engineering	ENTC		

<b>Subject/Rubric Title</b>	<b>Subject/ Rubric</b>	<b>Subject/Rubric Title</b>	<b>Subject/ Rubric</b>
Music, Applied	MUAP	Therapeutic Recreation	RECT
Music Ensemble	MUEN	Real Estate	RELE
Music, Business	MUSB	Nursing	RNSG
Music, Commercial	MUSC	Respiratory Care	RSPT
Music	MUSI	Hotel - Management	RSTO
Music, Commercial Perform	MUSP	Comm Design - Video	RTVB
Math Intervention	NCBM	Russian	RUSS
Nurse Assistant/Aide	NURA	Sign Language	SGNL
Nursing - BSN	NURS	Interpreter Prep/Deaf	SLNG
Environmental Science and Technology	OSHT	Semiconductor Manufacturing	SMFT
Construction Technology - Plumbing	PFPB	Sociology	SOCI
Philosophy	PHIL	Social Work	SOCW
Comm Design - Photo	PHTC	Spanish	SPAN
Physical Science/Physics	PHYS	Speech	SPCH
Phlebotomy	PLAB	Surgical Technology	SRGT
Physical Therapy Assistant	PTHA	Small Unmanned Aerial Systems	SUAS
Office Admin-Office	POFI	Child Development/Teaching	TECA
Office Systems Tech	POFT	Applied Mathematics	TECM
Polysomnographic Technology	PSGT	Hotel - Tourism	TRVM
Pastry Arts	PSTR	Comm Design - User	UXUI
Psychology	PSYC	Veterinary Technology	VTHT
Robotics	RBTC	Welding	WLDG
Athletic Program Planning	RECL		

## ALPHABETIZED COURSE

### DESCRIPTIONS

#### **ABDR 1266 Practicum - Autobody/Collision and Repair Technology/Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Lab required. 2 credit hours. (W)

#### **ABDR 1301 Auto Body Repair and Repainting**

An introduction to the use of hand and power tools, techniques of metalworking, body preparation, plastic fillers, fiberglass and SMC repair, sanding, and application of primers with emphasis on shop safety practices. Lab required. 3 credit hours. (W)

#### **ABDR 1331 Basic Refinishing**

An introduction to current refinishing products, shop safety, and equipment used in the automotive refinishing industry. Emphasis on surface preparation, masking techniques, and refinishing of replacement parts. Lab required. 3 credit hours. (W)

#### **ABDR 1349 Automotive Plastic and Sheet Molded Compound Repair**

A comprehensive course in repair of non-metal composites. Lab required. 3 credit hours. (W)

#### **ABDR 1391 Special Topics in Auto/Automotive Body Repairer**

Topics address 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 Electronics and Safety Systems**

An introduction to current refinishing products, shop safety, and equipment used in the automotive refinishing industry. Emphasis on surface preparation, masking techniques, and refinishing of replacement parts.

#### **ABDR 1455 Non-Structural Metal Repair**

Demonstrate sheet metal repair skills using mechanical and hydraulic equipment. Emphasis on attachment devices used to straighten and align exterior body panels. Lab required. Prerequisite: ABDR 1301. 4 credit hours. (W)

#### **ABDR 1458 Intermediate Refinishing**

Training in mixing and spraying of automotive topcoats.

Introduction to partial panel refinishing techniques. Lab required. Prerequisite: ABDR 1331. 4 credit hours. (W)

#### **ABDR 2355 Collision Repair Estimating**

An advanced course in collision estimating and development of a damage report utilizing estimating software. Lab required. 3 credit hours. (W)

#### **ABDR 2402 Auto Body Mechanical and Electrical Service**

A course in the repair, replacement, and/or service of collision damaged mechanical or electrical systems. Topics include drive train removal, reinstallation and service; cooling system service and repair; exhaust system service; and emission control systems. Additional topics include wire and connector repair, reading wiring diagrams, and troubleshooting. Lab required. 4 credit hours. (W)

#### **ABDR 2437 Structural Analysis and Damage Repair V**

Operation of equipment and the procedures involved in the repair of body structures. Special emphasis on conducting a thorough damage analysis as well as demonstrating proper pulling and anchoring techniques. Lab required. Prerequisite: ABDR 1455. 4 credit hours. (W)

#### **ABDR 2441 Major Collision Repair and Panel Replacement**

Instruction in preparation of vehicles for major repair processes. Covers interpreting information from damage reports, planning repair sequences, selecting appropriate tools, and organizing removed parts for reinstallation. Lab required. Prerequisite: ABDR 2437. 4 credit hours. (W)

#### **ABDR 2447 Advanced Collision Repair Welding**

Skill development in the use of advanced welding and cutting processes. Emphasizes current welding procedures and specific repair requirements for specialized metals. Lab required. 4 credit hours. (W)

#### **ABDR 2449 Advanced Refinishing**

Application of multi-stage refinishing techniques. Advanced skill development solving refinishing problems. Application of multi-stage refinishing techniques with emphasis on formula mixing and special spraying techniques. Lab required. Prerequisite: ABDR 1458. 4 credit hours. (W)

#### **ACCT 2301 Principles of Financial Accounting**

This course is an introduction to the fundamental concepts of financial accounting as prescribed by U.S. generally accepted accounting principles (GAAP) as applied to transactions and events that affect business

organizations. Students will examine the procedures and systems to accumulate, analyze, measure, and record financial transactions. Students will use recorded financial information to prepare a balance sheet, income statement, statement of cash flows, and statement of shareholders' equity to communicate the business entity's results of operations and financial position to users of financial information who are external to the company. Students will study the nature of assets, liabilities, and owners' equity while learning to use reported financial information for purposes of making decisions about the company. Students will be exposed to International Financial Reporting Standards (IFRS). Lab required. Prerequisite: Meet TSI college-readiness standard for Mathematics; or equivalent. 3 credit hours. (A)

### **ACCT 2302 Principles of Managerial Accounting**

This course is an introduction to the fundamental concepts of managerial accounting appropriate for all organizations. Students will study information from the entity's accounting system relevant to decisions made by internal managers, as distinguished from information relevant to users who are external to the company. The emphasis is on the identification and assignment of product costs, operational budgeting and planning, cost control, and management decision making. Topics include product costing methodologies, cost behavior, operational and capital budgeting, and performance evaluation. Lab required. Prerequisite: ACCT 2301. 3 credit hours. (A)

### **ACNT 1303 Introduction to Accounting I**

A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. Lab required. 3 credit hours. (W)

### **ACNT 1311 Introduction to Computerized Accounting**

Introduction to utilizing the computer in maintaining accounting records with primary emphasis on a general ledger package. Lab required. 3 credit hours. (W)

### **AERS 1105 The Air Force Today I**

Introduces students to the U.S. Air Force and the Air Force Reserve Officer Training Corps (AFROTC); includes Officership, professionalism, military customs and courtesies, and officer opportunities and benefits. AFROTC cadets must register for Leadership Laboratory as it complements this course with followership experience. 1 credit hour. (A)

### **AERS 1106 The Air Force Today II**

Introduces students to the U.S. Air Force and the Air Force Reserve Officer Training Corps (AFROTC); includes Officership, professionalism, military customs and courtesies, and officer opportunities and benefits. AFROTC cadets must register for Leadership Laboratory as it complements this course with followership experience. 1 credit hour. (A)

### **AERS 2103 The Development of Air Power I**

Introduces students to the U.S. Air Force and the Air Force Reserve Officer Training Corps (AFROTC); includes Officership, professionalism, military customs and courtesies, and officer opportunities and benefits; AFROTC cadets must register for Leadership Laboratory as it complements this course with followership experience. 1 credit hour. (A)

### **AERS 2104 The Development of Air Power II**

Introduces students to the U.S. Air Force and the Air Force Reserve Officer Training Corps (AFROTC); includes Officership, professionalism, military customs and courtesies, and officer opportunities and benefits; AFROTC cadets must register for Leadership Laboratory as it complements this course with followership experience. 1 credit hour. (A)

### **AGRI 1419 Introduction to Animal Science**

Scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock. Lab required. 4 credit hours. (A)

### **AGRI 2317 Introduction to Agricultural Economics**

Fundamental economic principles and their application in the agricultural industry. 3 credit hours. (A)

### **ANTH 2301 Physical Anthropology**

The study of human origins and bio-cultural adaptations. Topics may include primatology, genetics, human variation, forensics, health, and ethics in the discipline. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **ANTH 2302 Introduction to Archeology**

The study of the human past through material remains. The course includes a discussion of methods and theories relevant to archeological inquiry. Topics may include the adaption of agriculture, response to environmental change, the emergence of complex societies, and ethics in the discipline. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**ANTH 2346 General Anthropology**

The study of human beings, their antecedents, related primates, and their cultural behavior and institutions. Introduces the major subfields: physical and cultural anthropology, archeology, linguistics, their applications, and ethics in the discipline. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**ANTH 2351 Cultural Anthropology**

The study of human cultures. Topics may include social organization, institutions, diversity, interactions between human groups, and ethics in the discipline. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**ANTH 2389 Academic Co-op Anthropology**

Integrates on-campus study with practical hands-on work experience in anthropology. In conjunction with class seminars, the student will set specific goals and objectives in the study of anthropology. Contact the Cooperative Work Experience Office. Prerequisites: Consent of Associate Dean and meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**ANTH 2401 Physical Anthropology**

Lecture: The study of human origins and bio-cultural adaptations. Topics may include primatology, genetics, human variation, forensics, health, and ethics in the discipline. Lab: Includes demonstrations of the major principles of the lecture section. Additionally, an overview of human origins and cultural adaptations combining study of our nearest relatives, the chimpanzees, with the analysis of reproductions of fossil bones. Unit concerning forensic anthropology explains how crimes can be solved from analysis of skeletal material; students work with replicas of human bone. Opportunity to participate in field trip to zoo. Lab required. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

**ARAB 1411 Beginning Arabic I**

This course, which is designed for students with little or no prior training in the language, focuses on developing the four basic skills of speaking, reading, writing and listening, as well as the study of selected aspects of Arabic civilization. Instruction is enhanced by the use of audio and video materials. Lab required. 3 credit hours. (A)

**ARAB 1412 Beginning Arabic II**

This course is a continuation of ARAB 1411. It continues the development of the four basic skills of speaking, reading, writing and listening, as well as the

study of selected aspects of Arabic civilization.

Instruction is enhanced by the use of audio and video materials. Lab required. Prerequisite: ARAB 1411 or consent of Associate Dean. 3 credit hours. (A)

**ARCE 1342 Codes, Specifications, and Contract Documents**

Study of ordinances, codes and legal documents as they relate to specifications and drawings. Discussion of owner-architect-contractor responsibilities, duties, and legal relationships. Additionally, topics include EPA, RRC, and other regulatory entities potentially impacting construction projects, delivery methods and resulting contracts. Prerequisites: OSH 1305 and either CNBT 1300 or CNBT 2310. 3 credit hours. (W)

**ARCE 1352 Structural Drafting**

A study of structural systems including concrete foundations and frames, wood framing and trusses, and structural steel framing systems. Includes detailing of concrete, wood, and steel to meet industry standards including the American Institute of Steel Construction and The American Concrete Institute. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**ARCE 2352 Mechanical, Electrical and Plumbing (MEP) Systems**

Preparation of drawings for mechanical, electrical, and plumbing (MEP) systems with emphasis on applicable building and energy codes, product references, and specifications for construction. Lab required. Prerequisite: DFTG 1317. 3 credit hours. (W)

**ARTC 1302 Digital Imaging I**

Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions. Lab required. Prerequisite: ARTC 1325. 3 credit hours. (W)

**ARTC 1305 Basic Graphic Design**

Graphic design with emphasis on the visual communication process. Topics include basic terminology and graphic design principles. Lab required. 3 credit hours. (W)

**ARTC 1313 Digital Publishing I**

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. Prerequisites: ARTC 1302, ARTC 1305 and ARTC 1325. 3 credit hours. (W)

**ARTC 1317 Design Communication I**

Study of design development relating to graphic design



terminology, tools and media, and layout and design concepts. Topics include integration of type, images and other design elements, and developing computer skills in industry standard computer programs. Lab required. Prerequisite/Concurrent Enrollment: ARTC 1327 and ARTC 1353. 3 credit hours. (W)

### **ARTC 1325 Introduction to Computer Graphics**

A survey of design concepts, terminology, processes, and procedures. Topics include computer graphics hardware, digital images, digital publishing, vector-based graphics, and interactive multimedia. Lab required. 3 credit hours. (W)

### **ARTC 1327 Typography**

A study of letterforms and typographic concepts as elements of graphic communication. Emphasis on developing a current, practical typographic knowledge based on industry standards. Lab required. Prerequisites: ARTC 1305 and ARTC 1325. 3 credit hours. (W)

### **ARTC 1349 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: ARTC 1302 and ARTC 1317. 3 credit hours. (W)

### **ARTC 1353 Computer Illustration I**

Use of the tools and transformation options of an industry-standard vector drawing program to create complex illustrations or drawings. Includes principles of layout and design and manipulation of text and graphics. Lab required. Prerequisite: ARTC 1325. 3 credit hours. (W)

### **ARTC 1359 Visual Design for New Media**

Visual design elements as they relate to new media. Emphasizes aesthetics and visual problem solving such as typographic issues, color management, hierarchy of information, image optimization, and effective layout. Lab required. Prerequisites: ARTC 1305, ARTC 1325, and ARTC 2371. 3 credit hours. (W)

### **ARTC 1392 Special Topics in Design and Visual Communications**

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)

### **Advanced Design and Visual Communication Principles and Techniques**

Advance study of design and visual communication topics. Develop student understanding of key industry concepts. Emphasis on improving student proficiency and knowledge of industry demanded skillsets. Students are expected to apply concepts and skillsets learned to industry professional standards. Course key topics may change to reflect industry demands and trends. This course was designed to be repeated multiple times to improve student proficiency. Lab required. Prerequisites: ARTC 1305, ARTC 1353, ARTC 1349, and ARTC 2347 or Consent of Associate Dean.

### **ARTC 2305 Digital Imaging II**

Principles of digital image processing and digital painting. Emphasis on raster-based imaging and the creative aspects of electronic illustration for commercial or fine art applications. Lab included. Prerequisite: ARTC 1302. 3 credit hours. (W)

### **ARTC 2311 History of Communication Graphics**

Survey of the evolution of graphic arts in relation to the history of art. Includes formal, stylistic, social, political, economic, and historical aspects. Emphasis on art movements, schools of thought, individuals, and technology as they interrelate with graphic arts. 3 credit hours. (W)

### **ARTC 2335 Portfolio Development for Graphic Design**

Preparation of a portfolio comprised of completed graphic design projects. Evaluation and demonstration of portfolio presentation methods based on the student's specific area of study. Lab required. Prerequisite: Consent of Associate Dean. 3 credit hours. (W)

### **ARTC 2340 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: ARTC 1353. 3 credit hours. (W)

### **ARTC 2347 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. Prerequisites: ARTC 1317 or ARTC 1349 and ARTC 1302 and ARTC 1327. 3 credit hours. (W)

### **ARTC 2349 Art Direction II**

Mastery of advanced art direction projects with emphasis

on selected topics in advertising campaigns. Includes written, oral, and visual skills. Lab required. Prerequisite: ARTC 1349. 3 credit hours. (W)

### **ARTC 2371 User Experience I**

This is an introductory course focusing on the study and application of the user experience design process to develop software product concepts through user and industry research and analytics, generate ideas and solve problems through multi-level design iteration and prototyping, implement design strategy development that provides business solutions and meets business goals, and design professional presentations. Lab required. Prerequisite / Concurrent Enrollment: ARTC 1305 and ARTC 1325. 3 credit hours. (W)

### **ARTC 2381 Cooperative Education - Commercial and Advertising Art**

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 Associate Dean / Director of the program for further information. Prerequisite: Consent of Associate Dean. 3 credit hours. (W)

### **ARTS 1301 Art Appreciation**

A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical context. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)

### **ARTS 1303 Art History I (Prehistoric to the 14th century)**

A chronological analysis of the historical and cultural contexts of the visual arts from prehistoric times to the 14th century. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

### **ARTS 1304 Art History II (14th century to the present)**

A chronological analysis of the historical and cultural contexts of the visual arts from the 14th century to the present day. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

### **ARTS 1311 Design I (2-dimensional)**

An introduction to the fundamental terminology,

concepts, theory, and application of two-dimensional design. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

### **ARTS 1312 Design II (3-dimensional)**

An introduction to the fundamental terminology, concepts, theory, and application of three-dimensional design. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

### **ARTS 1313 Foundations of Art**

Introduction to the creative media designed to enhance artistic awareness and sensitivity through the creative and imaginative use of art materials and tools. Includes art history and culture through the exploration of a variety of art works with an emphasis on aesthetic judgment and growth. Additionally, the examination of the change in art creation based on the advancement of tools and materials pushing art production from optic technology in Renaissance painting to mechanical art to technology based art. 3 credit hours. (A)

### **ARTS 1316 Drawing I**

A foundation studio course exploring drawing with emphasis on descriptive, expressive and conceptual approaches. Students will learn to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will engage in critical analysis and begin to develop their understanding of drawing as a discipline. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

### **ARTS 1317 Drawing II**

A studio course exploring drawing with continued emphasis on descriptive, expressive and conceptual approaches. Students will further develop the ability to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will employ critical analysis to broaden their understanding of drawing as a discipline. Lab required. Prerequisite: ARTS 1316. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

### **ARTS 2311 Design III**

Studio art course that is a theoretical and practical study of color and composition in art and design. The course consists of studio-based projects using the formal and conceptual aspects of color. The course also examines the functions of color in art from different historical and cultural perspectives. Lab required. Prerequisite: ARTS 1311 or ARTS 1312. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2316 Painting I**

Studio art course that introduces the fundamental principles, materials, and techniques of painting. Lab required. Prerequisite: ARTS 1316. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2317 Painting II**

Studio art course that furthers the study of the principles, materials, and techniques of painting. Lab required. Prerequisite: ARTS 2316. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2323 Life Drawing**

Studio art course that introduces the analytic study of the human form and the figure's potential for compositional and expressive use in drawing. Lab required. Prerequisite: ARTS 1316. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2326 Sculpture**

A studio art course that introduces the materials, processes, and issues pertaining to the making of three-dimensional objects and environments. The course explores the use of varied materials and techniques along with the formal and conceptual principles that form the basis of contemporary sculpture. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2333 Printmaking**

A studio art course that introduces the materials, processes, and concepts pertaining to traditional and contemporary printmaking. The course explores the use of varied tools and techniques along with the formal and conceptual principles to create editioned and unique works. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2341 Metals**

A studio art course that introduces metalsmithing using basic techniques in jewelry design and metal construction. The course provides instruction and practical fabrication experience as it relates to the design and production of small-scale functional and/or non-functional objects. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2346 Ceramics I**

A studio art course that introduces basic building, throwing, and other techniques as it relates to the design and production of ceramic sculpture and pottery. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2347 Ceramics II**

A studio art course that furthers the study of building, throwing, and other techniques as it relates to the design and production of ceramic sculpture and pottery. Lab required. Prerequisite: ARTS 2346. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2348 Digital Media**

Studio art course that introduces the potential of basic digital media manipulation and graphic creation. The course emphasizes still and time-based media. Additionally, this digital photography course will cover digital camera operations, aesthetics, concept and software applications. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2356 Photography I**

A studio art course that introduces the technical and conceptual basics of photography as a creative medium. Additionally, a darkroom photography course that will cover basic camera operations and darkroom techniques. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs, including a 35mm SLR camera, film, and photographic paper.

**ARTS 2357 Photography II**

A studio art course that furthers the study of the technical and conceptual basics of photography as a creative medium. Additionally, a darkroom photography course that will cover advanced cameras and darkroom techniques. Lab required. Prerequisite: ARTS 2356. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2366 Watercolor**

Studio art course that introduces the fundamental principles, materials, and techniques of watercolor and other water-based media. Lab required. 3 credit hours. (A)  
Note: Students should expect additional supply costs.

**ARTS 2389 Academic Co-op Arts/Photography**

Integrates on-campus study with practical hands-on work experience in art/photography. In conjunction with class seminars, the student will set specific goals and objectives in the study of art. Contact the Cooperative Work Experience Office. 3 credit hours. (A)

**ARTV 1303 Basic Animation**

Examination of animation concepts, principles, and storyboard for basic production. Emphasizes creating movement and expression utilizing traditionally or digitally generated image sequences. Lab required. Prerequisite: ARTC 1325. 3 credit hours. (W)

**ARTV 1341 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: ARTV 1345 or consent of Instructor. 3 credit hours. (W)

**ARTV 1345 3-D Modeling and Rendering I**

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: ARTC 1325. 3 credit hours. (W)

**ARTV 1351 Digital Video**

Producing and editing video and sound for multimedia or web productions. Emphasizes capture, editing, and outputting of video using a digital video workstation. Lab required. Prerequisites: ARTC 1325 and ARTV 1371. 3 credit hours. (W)

**ARTV 1371 Storyboard and Concept Development**

Storyboarding for film, video and animation. Visual concept development for linear and interactive media. Lab required. 3 credit hours. (W)

**ARTV 2320 Team Program Production I**

Students assume roles in a production team using techniques and equipment to create short-form production(s). Lab required. Prerequisite: ARTV 1351. 3 credit hours. (W)

**ARTV 2335 Portfolio Development for Animation**

A course in the development of a professional portfolio to showcase the student's skills in animation. Includes self-promotion, resumes, portfolio distribution, and interview techniques. Lab required. Prerequisite: Consent of Associate Dean. 3 credit hours. (W)

**ARTV 2345 3-D Modeling and Rendering II**

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: ARTV 1345. 3 credit hours. (W)

**ARTV 2351 3-D Animation II**

Advanced level 3-D course utilizing animation tools and techniques used to develop movement. Emphasis on advanced animation techniques. Lab required. Prerequisite: ARTV 1341. 3 credit hours. (W)

**ARTV 2371 Advanced Skill Development for Animation and Games**

An upper level course in the development of concepts

and execution of assets for 2D/3D animation and games. The student's incoming skill level and abilities are reviewed and areas of improvement are targeted. Includes the integration of aesthetic and technical skills as introduced in various lower level courses. Lab required. Prerequisite: GAME 2325, or consent of Associate Dean. 3 credit hours. (W)

**AUMT 1266 Practicum 1 - Automobile/Automotive Mechanics Technology/Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Lab required. 2 credit hours. (W)

**AUMT 1305 Introduction to Automotive Technology**

An introduction to the automotive industry including automotive history, safety practices, shop equipment and tools, vehicle subsystems, service publications, professional responsibilities, and basic automotive maintenance. May be taught manufacturer specific. Lab required. 3 credit hours. (W)

**AUMT 1307 Automotive Electrical Systems**

An overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of, charging and starting systems, and electrical accessories. Emphasis on electrical principles, schematic diagrams, and service publications. May be taught manufacturer specific. Lab required. 3 credit hours. (W)

**AUMT 1316 Automotive Suspension and Steering Systems**

Diagnosis and repair of automotive suspension and steering systems including electronically controlled systems. Includes component repair, alignment procedures and tire and wheel service. May be taught manufacturer specific. Lab required. 3 credit hours. (W)

**AUMT 1345 Automotive Climate Control Systems**

Diagnosis and repair of manual/electronic climate control systems. Includes the refrigeration cycle and EPA guidelines for refrigerant handling. May be taught manufacturer specific. Lab required. 3 credit hours. (W)

**AUMT 1410 Automotive Brake Systems**

Operation and repair of drum/disc type brake systems. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught manufacturer specific. Lab required. Prerequisite: AUMT 1307. 4 credit hours. (W)

**AUMT 1419 Automotive Engine Repair**

Fundamentals of engine operation, diagnosis and repair. Emphasis on identification, inspection, measurements, and disassembly, repair, and reassembly of the engine.

May be taught manufacturer specific. Lab required. 4 credit hours. (W)

**AUMT 2266 Practicum 2 - Automobile/Automotive Mechanics Technology/Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Lab required. 2 credit hours. (W)

**AUMT 2313 Automotive Drive Train and Axles**

A study of automotive clutches, clutch operation devices, manual transmissions/ transaxles, and differentials with emphasis on diagnosis and repair. May be taught manufacturer specific. Lab required. 3 credit hours. (W)

**AUMT 2317 Automotive Engine Performance Analysis I**

Theory, operation, diagnosis of drivability concerns, and repair of ignition and fuel delivery systems. Use of current engine performance diagnostic equipment. May be taught manufacturer specific. Lab required. 3 credit hours. (W)

**AUMT 2337 Automotive Electronics**

Study of electronic principles applied to microcomputers and communication systems. Includes digital fundamentals, and use of electronic test equipment. May be taught manufacturer specific. Lab required. Prerequisite: AUMT 2434. 3 credit hours. (W)

**AUMT 2421 Automotive Electrical Diagnosis and Repair**

Repair of automotive electrical subsystems, lighting, instrumentation, and accessories. Emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. May be taught manufacturer specific. Lab required. Prerequisite: AUMT 1307. 4 credit hours. (W)

**AUMT 2425 Automotive Automatic Transmission and Transaxle**

A study of the operation, hydraulic circuits and electronic controls of modern automatic transmissions and automatic transaxles. Diagnosis, disassembly, and assembly procedures with emphasis on the use of special tools and repair techniques. May be taught manufacturer specific. Lab required. 4 credit hours. (W)

**AUMT 2434 Automotive Engine Performance Analysis II**

Diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems. Includes use of advanced engine performance diagnostic equipment. May be taught manufacturer specific. Lab required. Prerequisite: AUMT 2317. 4 credit hours. (W)

**BCIS 1305 Business Computer Applications**

Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the Internet. Prerequisite: Meet TSI college-readiness standard for Reading; or equivalent. 3 credit hours. (A)

**BIOL 1322 Nutrition and Diet Therapy**

This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed. 3 credit hours. (A)

**BIOL 1323 Nutrition and Diet Therapy II**

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)

**BIOL 1406 Biology for Science Majors I**

Lecture: Fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. Lab: Laboratory activities will reinforce the fundamental principles of living organisms, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Study and examination of the concepts of cytology, reproduction, genetics, and scientific reasoning are included. Lab required. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

**BIOL 1407 Biology for Science Majors II**

Lecture: The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Lab: Laboratory activities will reinforce study of the diversity and classifications of life, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Lab required.

Prerequisite: BIOL 1406. 4 credit hours. (A)

Note: This course includes dissection in lab.

### **BIOL 1408 Biology for Non-Science Majors I**

Lecture: Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Lab: Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Lab required. 4 credit hours. (A)

### **BIOL 1409 Biology for Non-Science Majors II**

Lecture: This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Lab: Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Lab required. Prerequisite: BIOL 1408. 4 credit hours. (A)

Note: This course includes dissection in lab.

### **BIOL 1414 Introduction to Biotechnology I**

Overview of classical genetics, DNA structure, the flow of genetic information, DNA replication, gene transcription, protein translation. Principles of 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. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

### **BIOL 1415 Introduction to Biotechnology II**

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: BIOL 1414. 4 credit hours. (A)

### **BIOL 2389 Academic Co-op Biology**

Integrates on-campus study with practical hands-on work experience in biology. In conjunction with class seminars, the student will set specific goals and objectives in the study of biology. Contact the Cooperative Work Experience Office. Prerequisite: BIOL 1406 or BIOL 1408. 3 credit hours. (A)

### **BIOL 2401 Anatomy and Physiology I**

Lecture: Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. Lab: The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses. Lab required. Prerequisite: Enrollment in this course is by permission only. Please meet with an academic advisor. BIOL 1406 is strongly recommended. 4 credit hours. (A)

### **BIOL 2402 Anatomy and Physiology II**

Lecture: Anatomy and Physiology II is the second part of a two-course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. Lab: The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Lab required. Prerequisite: Biology 2401 with a grade of "C" or better within the last five years. 4 credit hours. (A)

### **BIOL 2404 Human Anatomy and Physiology Basic**

A one-semester survey of the structure and function of the human body, including discussion and study of cells, tissues, organs, and systems. Lab required. 4 credit hours. (A)



**BIOL 2406 Environmental Biology**

Lecture: Principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research. Lab: Laboratory activities will reinforce principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research. Lab required, including field trips. 4 credit hours. (A)

**BIOL 2416 Genetics**

Study of the principles of molecular and classical genetics, and the function and transmission of hereditary material. Special emphasis on molecular genetics and genetic engineering. Lab required. Prerequisite: BIOL 1406. 4 credit hours. (A)

**BIOL 2420 Microbiology for Non-Science Majors**

Lecture: This course covers basic microbiology and immunology and is primarily directed at pre-nursing, pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health. Lab: This course covers basics of culture and identification of bacteria and microbial ecology. This course is primarily directed at pre-nursing and other pre-allied health majors and covers basics of microbiology. Emphasis is on medical microbiology, infectious diseases, and public health. Lab required. Prerequisite: BIOL 2401 with a grade of "C" or better within the last three years, and Prerequisite/Concurrent enrollment in BIOL 2402 with a grade of "C" or better within the last three years. 4 credit hours. (A)

**BIOL 2421 Microbiology for Science Majors**

Lecture: Principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. Lab: Laboratory activities will reinforce principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. Lab

required. Prerequisites: BIOL 1407 and CHEM 1411. 4 credit hours. (A)

**BIOM 1355 Medical Electronic Applications**

Presentation of sensors, transducers, and supporting circuits used in medical instrumentation devices. Lab required. 3 credit hours. (W)

**BIOM 2201 Safety in Health Care Facilities**

Study of codes, standards and management principles related to biomedical instrumentation. Emphasizes application of safety test equipment, preventive maintenance procedures, and documentation of work performed. Lab required. Prerequisite: HITT 1305. 2 credit hours. (W)

**BIOM 2280 Cooperative Education - Biomedical Technology Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 2 credit hours. (W)

**BIOM 2311 General Medical Equipment I**

Analysis of selected current paths from a larger schematic. Discussion of equipment and disassembly and reassembly of equipment. Lab required. Prerequisites: CETT 1407, CETT 1425, and HITT 1305. 3 credit hours. (W)

**BIOM 2315 Physiological Instruments I**

Theory of operation, circuit analysis, and troubleshooting physiological instruments. Lab required. Prerequisite: BIOM 2311. 3 credit hours. (W)

**BIOM 2319 Fundamentals of X-Ray and Medical Imaging Systems**

Radiation theory and safety hazards, fundamental circuits, and application of X-ray systems including circuit analysis and troubleshooting. Additionally, ultra sound systems and magnetic resonance systems. Lab required. Prerequisite: BIOM 2343. 3 credit hours. (W)

**BIOM 2331 Biomedical Clinical Instrumentation**

A study of theory, application, and principles of operation of instruments commonly used in a medical laboratory. Lab required. Prerequisite: BIOM 2343. 3 credit hours. (W)

**BIOM 2337 Respiratory Equipment Maintenance**

Principles of operation, theory, and maintenance of

respiratory equipment. Lab required. Prerequisite: BIOM 2343. 3 credit hours. (W)

### **BIOM 2343 General Medical Equipment II**

Theory and principles of operation of a variety of basic electro-mechanical equipment with emphasis on repair and service of actual medical equipment. Lab required. Prerequisite: BIOM 2311. 3 credit hours. (W)

### **BIOM 2380 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. 3 credit hours. (W)

### **BITC 1340 Quality Assurance for the Biosciences**

Quality assurance principles and applications. Includes quality control and Federal Drug Administration (FDA) regulations to the biotechnology, biopharmaceutical, and biomedical device industries. Additionally, BITC 1340 Quality Assurance for the Biosciences is a course designed to introduce the student to quality principles as they apply to the biotechnology, biopharmaceutical, and the biomedical device industries. Theories and application of quality assurance and quality control will be presented and several different quality systems will be discussed such as cGMP, ISO9000, Six Sigma and Lean. This class will be focused on quality in the bioscience workplace and therefore will include many applied assignments, which include internet research in current regulations and discussion board participation. Prerequisite/Concurrent enrollment: BIOL 1415 or consent of Instructor. 3 credit hours. (W)

### **BITC 1350 Special Studies and Bioethical Issues of Biotechnology**

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: BIOL 1414 and BIOL 1415 or Consent of Instructor. 3 credit hours. (W)

### **BITC 2350 Bioinformatics**

Current topics in bioinformatics, proteomics, and computational biology. Includes methods for high-throughput data collection, storing, and accessing biological data. Covers programs and algorithms used to analyze data. Prerequisite: BITC 2411 or consent of Instructor. 3 credit hours. (W)

### **BITC 2386 Internship-Biology Technician/Biotechnology Laboratory Technician**

A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Contact the Cooperative Work Experience Office. Prerequisite: Completed 9 hours of biotechnology courses and consent of Instructor. Major Requirement: Biotechnology. 3 credit hours. (W)

### **BITC 2411 Biotechnology Laboratory Instrumentation**

Theory, applications, and safe operation of various biotechnology-related analytical instruments. Addresses separation and identification techniques including electrophoresis, spectrophotometry, and chromatography. Lab required. Prerequisites: BIOL 1414 and BIOL 1415 or consent of Instructor. 4 credit hours. (W)

### **BITC 2431 Cell Culture Techniques**

Theory and applications of cell culture techniques. Laboratory emphasis on the principles and practices of applications such as initiation, cultivation, maintenance, and preservation of cell lines. Lab required. Prerequisite: BIOL 1406 or BIOL 1414 or consent of Instructor. 4 credit hours. (W)

### **BITC 2441 Molecular Biology Techniques**

In-depth coverage of the theory and laboratory techniques in molecular biology with an emphasis on gene expression and regulation, recombinant DNA, and nucleic acids. Lab required. Prerequisites: BIOL 1414 and BIOL 1415 or consent of Instructor. 4 credit hours. (W)

### **BITC 2486 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. Prerequisite: Completed 9 hours of biotechnology courses and consent of Instructor. Major Requirement: Biotechnology. 4 credit hours. (W)

### **BMGT 1305 Communications in Management**

Basic theory and processes of communication skills necessary for the management of an organization's workforce. 3 credit hours. (W)

### **BMGT 1306 Facilities Management**

General management and supervision of public buildings, business and industrial facilities, and other complexes requiring supervision and control. Includes fire alarm maintenance, plant maintenance, occupational safety,

OSHA rules and regulations, management of maintenance supervisors, and hazardous materials awareness. Prerequisite: CNBT 2342. 3 credit hours. (W)

### **BMGT 1307 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)

### **BMGT 1309 Information and Project Management**

Critical path methods for planning and controlling projects. Includes time/cost tradeoffs, resource utilization, stochastic considerations, task determination, time management, scheduling management, status reports, budget management, customer service, professional attitude, and project supervision. 3 credit hours. (W)

### **BMGT 1313 Principles of Purchasing**

The purchasing process as it relates to such topics as inventory control, price determination, vendor selection, supply chain management, negotiation techniques, and ethical issues in purchasing. 3 credit hours. (W)

### **BMGT 1327 Principles of Management**

Concepts, terminology, principles, theories, and issues in the field of management. 3 credit hours. (W)

### **BMGT 1341 Business Ethics**

Discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social responsibility in management practices and business activities. Includes ethical corporate responsibility. 3 credit hours. (W)

### **BMGT 1344 Negotiations and Conflict Management**

Theories which aid in the diagnosis of interpersonal and intergroup conflict. The role of manager as negotiator, intermediary, and problem solver. 3 credit hours. (W)

### **BMGT 2303 Problem Solving and Decision Making**

Decision-making and problem-solving processes in organizations utilizing logical and creative problem solving techniques. Application of theory is provided by experiential activities using managerial decision tools. 3 credit hours. (W)

### **BMGT 2309 Leadership**

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)

### **BMGT 2311 Change Management**

Knowledge, skills, and tools that enable a leader/organization to facilitate change in a participative style. 3 credit hours. (W)

### **BMGT 2341 Strategic Management**

Strategic management process, including analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment. Prerequisite: BMGT 1327.

Prerequisite/Concurrent enrollment: BMGT 2311. 3 credit hours. (W)

### **BMGT 2382 Cooperative Education - Business Administration and Management, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **BUSG 1304 Financial Literacy**

A study of the financial principles when managing financial affairs. Includes topics such as budgeting, retirement, property ownership, savings, and investment planning. 3 credit hours. (W)

### **BUSG 1307 Entrepreneurship and Economic Development**

Overview of entrepreneurship as an economic development strategy. Includes community support systems for entrepreneurs. 3 credit hours. (W)

### **BUSG 1371 Business Plan for Funding**

How to develop a business plan for a small business start-up or expansion that can be submitted to a financial institution or used for implementation. Emphasis on importance of the plan, components, format, and considerations. 3 credit hours. (W)

### **BUSG 2309 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)

### **BUSG 2371 Entrepreneurship Experience**

Career-related activities associated with the operation of one's own business. This course will allow the student to identify and implement the necessary knowledge and skills required to be a successful business owner.

Prerequisite: Consent of Discipline Lead. 3 credit hours. (W)

**BUSG 2380 Cooperative Education - Business/Commerce, 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. Prerequisites: INSR 1301, INSR 1305, INSR 1345, INSR 1375, and INSR 2301. 3 credit hours. (W)

**BUSI 1301 Business Principles**

This course provides a survey of economic systems, forms of business ownership, and considerations for running a business. Students will learn various aspects of business, management, and leadership functions; organizational considerations; and decision-making processes. Financial topics are introduced, including accounting, money and banking, and securities markets. Also included are discussions of business challenges in the legal and regulatory environment, business ethics, social responsibility, and international business. Emphasized is the dynamic role of business in everyday life. 3 credit hours. (A)

**BUSI 1307 Personal Finance**

Personal financial issues including financial planning, insurance, budgeting, credit, home ownership, savings and tax problems. 3 credit hours. (A)

**BUSI 2301 Business Law**

The course provides the student with foundational information about the U.S. legal system and dispute resolution, and their impact on business. The major content areas will include general principles of law, the relationship of business and the U.S. Constitution, state and federal legal systems, the relationship between law and ethics, contracts, sales, torts, agency law, intellectual property, and business law in the global context. Prerequisite: High school coursework in U.S. history and government; or equivalent. 3 credit hours. (A)

**BUSI 2305 Business Statistics**

Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course. (BUSI 2305 is included in the

Business Field of Study.) Prerequisites: MATH 1324 or MATH 1314, and BCIS 1305. 3 credit hours. (A)

**CDEC 1270 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. 2 credit hours. (W)

**CDEC 1313 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 birth through age eight. Lab required. 3 credit hours. (W)

**CDEC 1317 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)

**CDEC 1319 Child Guidance**

An exploration of guidance strategies for promoting pro-social behaviors with individual and groups of children. Emphasis on positive guidance principles and techniques, family involvement, and cultural influences. Lab required. 3 credit hours. (W)

**CDEC 1321 The Infant and Toddler**

A study of appropriate infant and toddler programs (birth to age 3), including an overview of development, quality routines, learning environments, materials and activities, and teaching/guidance techniques. Lab required. 3 credit hours. (W)

**CDEC 1323 Observation and Assessment**

A study of observation skills, assessment techniques, and documentation of children's development. Lab required. 3 credit hours. (W)

**CDEC 1358 Creative Arts for Early Childhood**

An exploration of principles, methods and materials for teaching music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking for children birth through age eight. Lab required. 3 credit hours. (W)

**CDEC 1359 Children with Special Needs**

A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, intervention strategies, available

resources, referral processes, the advocacy role, and legislative issues. Lab required. 3 credit hours. (W)

### **CDEC 1385 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 Associate Dean. 3 credit hours. (W)

### **CDEC 2166 Practicum - Child Care Provider/Assistant**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Consent of Associate Dean. 1 credit hour. (W)

### **CDEC 2304 Child Abuse and Neglect**

Methods used in the identification of physical, emotional, and sexual abuse and neglect with an emphasis on developing skills for working with children and families. Includes methods of referral to public and private agencies that deal with investigation and treatment. Lab required. 3 credit hours. (W)

### **CDEC 2307 Math and Science for Early Childhood**

Exploration of principles, methods, and materials for teaching children math and science concepts and process skills through discovery and play. Lab required. 3 credit hours. (W)

### **CDEC 2322 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)

### **CDEC 2324 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)

### **CDEC 2326 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)

### **CDEC 2328 Administration of Programs for Children II**

An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management, advocacy, professionalism, fiscal analysis, technical applications in programs and planning parent education / partnerships. Lab required. 3 credit hours. (W)

### **CDEC 2336 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)

### **CDEC 2340 Instructional Techniques for Children with Special Needs**

Exploration of development and implementation of curriculum for children with special needs. Lab required. 3 credit hours. (W)

### **CDEC 2371 Using Technology in the Classroom**

An overview of technology, media and digital information in education. This course includes a review of research on the impact, as well as methodology on effective use, of technology and media on children and teachers in the classroom and in curriculum planning and presentation. Lab required. 3 credit hours. (W)

### **CETT 1303 DC Circuits**

A study of the fundamentals of direct current including Ohm's law, Kirchhoff's law, and circuit analysis techniques. Lab required. 3 credit hours. (W)

### **CETT 1305 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 1303 or consent of Associate Dean. 3 credit hours. (W)

### **CETT 1329 Solid State Devices**

A study of diodes and other semiconductor devices, including analysis of static and dynamic characteristics, biasing techniques, and thermal considerations. Lab required. 3 credit hours. (W)

### **CETT 1407 Fundamentals of Electronics**

Applies concepts of electricity, electronics, and digital

fundamentals; supports programs requiring a general knowledge of electronics. Lab required. Corequisite: TECM 1343 or consent of Instructor. 4 credit hours. (W)

#### **CETT 1409 DC-AC Circuits**

Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchhoff's laws, networks, transformers, resonance, phasors, capacitive and inductive circuit analysis techniques. Lab required. Prerequisites: CETT 1407 and TECM 1343. 4 credit hours. (W)

#### **CETT 1425 Digital Fundamentals**

Formerly CETT 1325 An entry level course in digital electronics to include numbering systems, logic gates, Boolean algebra, and combinational logic. Lab required. 4 credit hours. (W)

#### **CETT 1445 Microprocessor**

Formerly CETT 1345 An introductory course in microprocessor software and hardware: its architecture, timing sequence, operation, and programming. Discussion of appropriate software diagnostic language and tools. Lab required. Prerequisites: CETT 1407 and CETT 1425, or consent of Instructor or Discipline Lead. 4 credit hours. (W)

#### **CETT 1457 Linear Integrated Circuits**

Formerly CETT 1357 A study of the characteristics, operations and testing of linear integrated circuits. Applications include instrumentation and active filtering. Lab required. Prerequisite: CETT 1409 or consent of Instructor or Discipline Lead. 4 credit hours. (W)

#### **CETT 2380 Cooperative Education-Computer Engineering Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

#### **CETT 2471 Emerging Topics in Engineering Technology**

Topics address identified emerging technology developments, skills, knowledge pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. Prerequisites: CETT 1409 and CETT 1425, or consent of Instructor. 4 credit hours. (W)

#### **CHEF 1301 Basic Food Preparation**

A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, material handling, heat transfer, sanitation, safety, nutrition, and professionalism. Lab required. Prerequisite: Mandatory Culinary / Pastry Arts Orientation. 3 credit hours. (W)

#### **CHEF 1302 Principles of Healthy Cuisine**

Introduction to the principles of planning, preparation, and presentation of nutritionally balanced meals. Alternative methods and ingredients will be used to achieve a healthier cooking style. Lab required. Prerequisites: CHEF 2331 with a grade of "C" or better and IFWA 1310. 3 credit hours. (W)  
Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.

#### **CHEF 1305 Sanitation and Safety**

A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards. 3 credit hours. (W)

#### **CHEF 1310 Garde Manger**

A study of cold foods and garnishes. Emphasis on design, techniques, and display of fine foods. Lab required. Prerequisite / Concurrent enrollment: CHEF 2331 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.

#### **CHEF 1314 A La Carte Cooking**

A course in a la carte or "cooking to order" concepts. Topics include menu and recipe interpretation and conversion, organization of work station, employment of appropriate cooking methods, plating, and saucing principles. Lab included. Prerequisites: CHEF 1310, CHEF 1341, CHEF 1345, and PSTR 1301. 3 credit hours. (W)  
Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.

#### **CHEF 1341 American Regional Cuisine**

A study of the development of regional cuisine's in the United States with emphasis on the similarities in production and service systems. Application of skills to develop, organize, and acquire knowledge of recipe



strategies and production systems. Professional chef uniform and kitchen tools required. Lab required. Prerequisite / Concurrent enrollment: CHEF 2331 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.

#### **CHEF 1345 International Cuisine**

The study of classical cooking skills associated with the preparation and service of international and ethnic cuisines. Topics include similarities between food production systems used in the United States and other regions of the world. Professional chef uniform and kitchen tools required. Lab required. Prerequisite / Concurrent enrollment: CHEF 2331 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.

#### **CHEF 1364 Practicum (or Field Experience) - Culinary Arts/Chef Training**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: CHEF 2331. 3 credit hours. (W)

#### **CHEF 2302 Saucier**

Instruction in the preparation of stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. Lab included. Prerequisite: CHEF 2331 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.

#### **CHEF 2331 Advanced Food Preparation**

Advanced concepts of food preparation and presentation techniques. Identify and prepare breakfast meats, eggs, cereals, and batter products, discuss the applicability of convenience, value added, further processed or par cooked food items; and demonstrate food presentation techniques and writing standardized recipes. Professional chef uniform and kitchen tools required. Lab required. Prerequisites: CHEF 1301 with a grade of "C" or better and CHEF 1305 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.

#### **CHEF 2336 Charcuterie**

Advanced concepts in the construction of sausages, pates, and related force meat preparations. Lab required. Prerequisites: CHEF 1301, CHEF 1305 and CHEF 2331. 3 credit hours. (W)

Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.

#### **CHEF 2380 Cooperative Education - Culinary Arts/Chef Training**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisites: CHEF 1301 with a grade of "C" or better and CHEF 1305 with a grade of "C" or better. 3 credit hours. (W)

#### **CHEM 1405 Introduction to Chemistry I**

For non-science majors. Survey of chemistry including scientific calculations, chemical equations, theory of atoms and bonding, states of matter, nuclear chemistry, elementary thermodynamics, and acid-base chemistry. Lab and recitation required. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

#### **CHEM 1409 General Chemistry for Engineering Majors**

Lecture: Fundamental principles of chemistry for engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, acid-base concepts, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, phase diagrams, chemical thermodynamics, kinetics, introduction to chemical equilibrium, and an introduction to descriptive inorganic chemistry and organic chemistry. Lab: Basic laboratory experiments supporting theoretical principles presented in lecture; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. This is a co-requisite for CHEM 1409 lecture. Lab required. Prerequisite: MATH 1314 equivalent or higher level within the last 5 years with a grade of "C" or better. 4 credit hours. (A)

**CHEM 1411 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 CHEM 1311; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports. High school chemistry is strongly recommended. Prerequisite: MATH 1314 equivalent or higher level within the last 5 years with a grade of "C" or better, and meet TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

**CHEM 1412 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 CHEM 1312; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Prerequisite: CHEM 1411 within the last five years with a grade of "C" or better. 4 credit hours. (A)

**CHEM 2389 Academic Co-op Chemistry**

Integrates on-campus study with practical hands-on work experience in chemistry. In conjunction with class seminars, the student will set specific goals and objectives in the study of chemistry. Contact the Cooperative Work Experience Office. 3 credit hours. (A)

**CHEM 2423 Organic Chemistry I**

Lecture: Fundamental principles of organic chemistry will be studied, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. This course is intended for students in science or pre-professional programs. Lab: Laboratory activities will reinforce fundamental principles of organic chemistry, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives.

Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Methods for the purification and identification of organic compounds will be examined. Lab and recitation required. Prerequisite: CHEM 1412 within the last five years with a grade of "C" or better. 4 credit hours. (A)

**CHEM 2425 Organic Chemistry II**

Lecture: Advanced principles of organic chemistry will be studied, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. This course is intended for students in science or pre-professional programs. Lab: Laboratory activities reinforce advanced principles of organic chemistry, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Lab and recitation required. Prerequisite: CHEM 2423 within the last 5 years with a grade of "C" or better. 4 credit hours. (A)

**CHIN 1411 Beginning Chinese I**

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Chinese culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, and video cassettes. Lab required. 4 credit hours. (A)

**CHIN 1412 Beginning Chinese II**

Continuation of CHIN 1411. Lab required. Prerequisite: CHIN 1411 or consent of Associate Dean. 4 credit hours. (A)

**CHIN 2311 Intermediate Chinese I**

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. Prerequisite: CHIN 1412 or consent of Associate Dean. 3 credit hours. (A)

**CHIN 2312 Intermediate Chinese II**

Continuation of CHIN 2311, emphasizing conversation

and reading skills. Prerequisite: CHIN 2311 or consent of Associate Dean. 3 credit hours. (A)

### **CJLE 1429 Basic Peace Officer V**

Supplemental course taken in conjunction with Basic Peace Officer I, II, III, and IV. Satisfies or exceeds the Texas Commission on Law Enforcement (TCOLE) approved Basic Peace Officer Training Academy. Additionally, this course incorporates the following sections of TCOLE Course 1000 Strategies of Defense - Racial Profiling and the Law; Identity Crimes; Asset Forfeiture; Criminal Investigation. The entire basic peace officer training will be reviewed to prepare students for the state licensing exam. Lab required. Prerequisite: Admission to the Basic Peace Officer Program and consent of the Law Enforcement Academy Director or Designee. Prerequisite/Concurrent enrollment: CJLE 1506, CJLE 1512, CJLE 1518 and CJLE 1524. Major Requirement: Certificate - Basic Peace Officer. 4 credit hours. (W)

### **CJLE 1506 Basic Peace Officer I**

Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer II, III, IV and V (supplement) to satisfy the Texas Commission on Law Enforcement (TCOLE) approved Basic Peace Officer Training Academy. Additionally, this course incorporates the following sections of TCOLE Course 1000: Introduction and Orientation; TCOLE Rules; Fitness and Wellness, and Stress Management; Professional Policing; Professionalism and Ethics; U. S. and Texas Constitutions, Bill of Rights, and Criminal Justice System; Multiculturalism and Human Relations; Code of Criminal Procedure; Arrest, Search and Seizure; Penal Code. Lab required. Prerequisite: Admission to the Basic Peace Officer Program and consent of the Law Enforcement Academy Director or Designee. Corequisite: CJLE 1512. Major Requirement: Certificate - Basic Peace Officer. 5 credit hours. (W)

### **CJLE 1512 Basic Peace Officer II**

Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, III, IV and V (supplement) to satisfy the Texas Commission on Law Enforcement (TCOLE) approved Basic Peace Officer Training Academy. Additionally, this course incorporates the following sections of TCOLE Course 1000: Traffic, Intoxicated Driver and Standardized Field Sobriety Testing; Civil Process and Liability; Texas Alcoholic Beverage Code; Health and Safety Code - Controlled Substances Act; Family Code and Juvenile Issues; Force Options. Lab required. Prerequisite: Admission to the Basic Peace Officer Program and consent of the Law Enforcement Academy Director or

Designee. Corequisite: CJLE 1506. Major Requirement: Certificate - Basic Peace Officer. 5 credit hours. (W)

### **CJLE 1518 Basic Peace Officer III**

Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, IV and V (supplement) to satisfy the Texas Commission on Law Enforcement (TCOLE) approved Basic Peace Officer Training Academy. Additionally, this course incorporates the following sections of TCOLE Course 1000: Written and Verbal Communications; Introductory Spanish; Strategies of Defense - Mechanics of Arrest; Strategies of Defense - Firearms; Emergency Medical Assistance; Problem Solving and Critical Thinking. Lab required. Prerequisite: Admission to the Basic Peace Officer Program and consent of the Law Enforcement Academy Director or Designee. Prerequisite/Concurrent enrollment: CJLE 1506. and CJLE 1512. Corequisite: CJLE 1524. Major Requirement: Certificate - Basic Peace Officer. 5 credit hours. (W)

### **CJLE 1524 Basic Peace Officer IV**

Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, III and V (supplement) to satisfy the Texas Commission on Law Enforcement (TCOLE) approved Basic Peace Officer Training Academy. Additionally, this course incorporates the following sections of TCOLE Course 1000: Emergency Communications; Professional Police Driving; Patrol/Consular Notification; Victims of Crime; Family Violence and Related Assaultive Offenses; Crisis Intervention Training (CIT)/Mental Health Code; Hazardous Materials Awareness. Lab required. Prerequisite: Admission to the Basic Peace Officer Program and consent of the Law Enforcement Academy Director or Designee. Prerequisite/Concurrent enrollment: CJLE 1506 and CJLE 1512. Major Requirement: Certificate - Basic Peace Officer. 5 credit hours. (W)

### **CNBT 1300 Residential and Light Commercial Construction Drawings**

Introduction to construction drawings with a focus on residential and light commercial construction. Additionally, this course will include an introduction to computerized prints and related software. Lab required. 3 credit hours. (W)

### **CNBT 1302 Mechanical, Plumbing & Electrical Systems in Construction I (Residential)**

A presentation of the basic mechanical, plumbing, and electrical components in construction and their relationship to residential and light commercial buildings. Additionally, the course includes MEP blueprints,

schedule coordination, and safety. Lab required.

Prerequisites: CNBT 1300 and OSHT 1305. 3 credit hours. (W)

### **CNBT 1311 Construction Materials and Methods I**

Introduction to construction materials and methods and their applications. Lab required. 3 credit hours. (W)

### **CNBT 1315 Field Engineering I**

Surveying equipment, sketches, proper field note taking, methods of staking, layout of building site, and horizontal and vertical controls. Lab required. Prerequisite: OSHT 1305. Prerequisite / Concurrent Enrollment: CNBT 2344. 3 credit hours. (W)

### **CNBT 1318 Construction Tools and Techniques**

Comprehensive study of the selection and use of hand tools, portable power and stationary power tools and related construction equipment. Lab required. 3 credit hours. (W)

### **CNBT 1342 Building Codes and Inspections**

Building codes and standards applicable to building construction and inspection processes. Lab required. 3 credit hours. (W)

### **CNBT 1346 Construction Estimating I**

Fundamentals of estimating materials and labor costs in construction. Prerequisites: CNBT 1300 and CNBT 2304. 3 credit hours. (W)

### **CNBT 1359 Project Scheduling**

A study of conventional scheduling using critical-path-method; precedence and arrow networks; bar charts; monthly reports; and fast track scheduling. Additionally, scheduling software for the construction industry will be used. Lab required. Prerequisites: CNBT 1300, CNBT 1311, and CNBT 2304. 3 credit hours. (W)

### **CNBT 1371 Technology for the Mobile Workforce**

Introduction to the various software packages and mobile apps associated with the construction industry. Lab required. 3 credit hours. (W)

### **CNBT 1380 Cooperative Education - Construction 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 your Workforce Program Career Coach. Prerequisite: Consent of Discipline Lead. 3 credit hours. (W)

### **CNBT 2304 Construction Methods and Materials II**

Continuation of the study of the properties of building materials, methods and equipment for their integrated use in completing construction projects. Additionally, the course will address quality control in construction. Lab required. Prerequisites: CNBT 1311 and OSHT 1305. 3 credit hours. (W)

### **CNBT 2310 Commercial/Industrial Blueprint Reading**

Blueprint reading for commercial/industrial construction. Additionally, this course will include an introduction to commercial/Industrial computerized prints and related software. Lab required. 3 credit hours. (W)

### **CNBT 2340 Mechanical, Plumbing & Electrical Systems in Construction II (Commercial)**

Processes and methods used in design, selection of equipment, and installation of mechanical, plumbing, and electrical systems in commercial buildings. Includes heating and cooling systems, duct work, mechanical and electrical control systems, lighting requirements, and design of water supply and sanitary sewer systems. Additionally, the course addresses MEP blueprints, schedule coordination, and safety. Lab required. Prerequisites: CNBT 1300, CNBT 2304, and OSHT 1305. 3 credit hours. (W)

### **CNBT 2342 Construction Management I**

Management skills on the job site. Topics include written and oral communications, leadership and motivation, problem solving, and decision making. Additionally, this course includes customer and contractor relations and ethics in the construction industry. 3 credit hours. (W)

### **CNBT 2344 Construction Management II**

A management course in contract documents, safety, planning, scheduling, production, control, law and labor issues. Topics include contracts, planning, cost and production peripheral documents, and costs and work analysis. Additional topics include customer service and quality control. Prerequisites: CNBT 1311 and CNBT 2342. 3 credit hours. (W)

### **CNBT 2346 Construction Management III**

Advanced course work in safety procedures, project management, scheduling, material handling, layout, payment scheduling, and inspection. Additionally, this is a capstone course in which program learning outcomes will be demonstrated. Prerequisites: CNBT 2344 or consent of Program Director. 3 credit hours. (W)

### **CNBT 2380 Cooperative Education – Construction 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)

### **COMM 1307 Introduction to Mass Communication**

Survey of basic content and structural elements of mass media and their functions and influences on society. Additionally, 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. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **COMM 1335 Introduction to Electronic Media**

An overview of the development, regulation, economics, social impact, and industry practices in electronic media. Additionally, an historical and critical comparison of the first two broadcast media as they have evolved, this course includes discussion of important historical issues that resonate with contemporary media concerns - including intellectual property and patent rights, aesthetics and production values, censorship and freedom of speech, broadcast ethics, ratings fallibility, 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. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **COMM 2300 Media Literacy**

Criticism and analysis of the function, role, and responsibility of the mass media in modern society from the consumer perspective. Includes the ethical problems and issues facing each media format, with the effect of political, economic, and cultural factors on the operation of the media. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **COMM 2330 Introduction to Public Relations**

Exploration of the history and development of public relations. Presentation of the theory behind and process of public relations, including the planning, implementation, and evaluation of PR campaigns. Additionally, exploration of current trends in the profession and overview of how the process is carried out

in different public relations specializations. The student is recommended to complete either COMM 1307 or SPCH 1311 prior to registering for this course, but not required. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **COMM 2331 Radio / Television 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 commercial. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **COMM 2332 Radio/Television News**

The preparation and analysis of news styles for the electronic media. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **COMM 2339 Writing for Radio, Television, 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. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **COMM 2366 Film Appreciation**

Survey and analyze cinema including history, film techniques, production procedures, selected motion pictures, and cinema's impact on and reflection of society. Lab required. Prerequisite: ARTS 2348 or PHTC 1311 or consent of Associate Dean. 3 credit hours. (A)  
Note: Students may take either DRAM 2366 or COMM 2366, but not both.

### **COMM 2389 Academic Co-op Communication**

For students with interest or major in mass communications, radio, TV, or film. Integrates on-campus study with practical hands-on work experience in communication. In conjunction with class seminars, the student will set specific goals and objectives in the study of communication. Contact the Cooperative Work Experience Office. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **COSC 1301 Introduction to Computing**

Overview of computer systems - hardware, operating systems, the Internet and application software including word processing, spreadsheets, presentation graphics, and

databases. Current topics such as the effect of computers on society, and the history and use of computers in business, educational, and other interdisciplinary settings are also studied. This course is not intended to count toward a student's major field of study in business or computer science. Prerequisite: Meet TSI college-readiness standard for Reading; or equivalent. 3 credit hours. (A)

### **COSC 1315 Introduction to Computer Programming**

Introduction to computer programming for solving a variety of problems. This course is intended for non-computer science and non-computer engineering majors. Emphasis on the fundamentals of design, development, testing, implementation, and documentation of computer programs. Includes problem solving with structured techniques and algorithms using pseudo code and/or graphical representations. Additionally, course also includes introduction to language syntax, data types, algorithms, input/output and arrays. Lab required. 3 credit hours. (A)

### **COSC 1420 C Programming**

Introduces the fundamental concepts of structured programming in the C language. Topics include data types; control structures; functions, structures, arrays, pointers, pointer arithmetic, unions, and files; the mechanics of running, testing, and debugging programs; introduction to programming; and introduction to the historical and social context of computing. Additionally, this course assumes computer literacy. Prerequisite: MATH 1314 or equivalent academic preparation. 4 credit hours. (A)

### **COSC 1436 Programming Fundamentals I**

This course introduces the fundamental concepts of structured programming, and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. (This course is included in the Field of Study Curriculum for Computer Science.) Prerequisite: Meet TSI college-readiness standard for Mathematics; or equivalent. 4 credit hours. (A)

### **COSC 1437 Programming Fundamentals II**

This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for

testing and debugging software. (This course is included in the Field of Study Curriculum for Computer Science.) Prerequisite: COSC 1436 or COSC 1420, or consent of Associate Dean. 4 credit hours. (A)

### **COSC 2325 Computer Organization**

The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. Additionally, this class is taught with Intel assembly language. Prerequisites: COSC 1336 or consent of Associate Dean. 3 credit hours. (A)

### **COSC 2336 Programming Fundamentals III (C++)**

Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), searching, sorting, recursion, and algorithmic analysis. Programs will be implemented in an appropriate object oriented language. (This course is included in the Field of Study Curriculum for Computer Science.) Prerequisite: COSC 1437 or consent of Associate Dean. 3 credit hours. (A)

Note: Students may take either COSC 2336 or COSC 2436 but not both.

### **COSC 2436 Programming Fundamentals III**

Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), searching, sorting, recursion, and algorithmic analysis. Programs will be implemented in an appropriate object oriented language. (This course is included in the Field of Study Curriculum for Computer Science.) Prerequisite: COSC 1437 or consent of Associate Dean. 4 credit hours. (A)

### **CPMT 1305 IT Essentials I: PC Hardware and Software**

Provides comprehensive overview of computer hardware and software and an introduction to advanced concepts addressed by CISCO CCENT certification. Lab required. 3 credit hours. (W)

### **CRIJ 1301 Introduction to Criminal Justice**

This course provides a historical and philosophical overview of the American criminal justice system, including the nature, extent, and impact of crime; criminal



law; and justice agencies and processes. 3 credit hours.  
(A)

### **CRIJ 1306 Court Systems and Practices**

This course is a study of the court system as it applies to the structures, procedures, practices and sources of law in American courts, using federal and Texas statutes and case law. 3 credit hours. (A)

### **CRIJ 1307 Crime in America**

American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime. 3 credit hours. (A)

### **CRIJ 1310 Fundamentals of Criminal Law**

This course is the study of criminal law including application of definitions, statutory elements, defenses and penalties using Texas statutes, the Model Penal Code, and case law. The course also analyzes the philosophical and historical development of criminal law and criminal culpability. 3 credit hours. (A)

### **CRIJ 1313 Juvenile Justice System**

A study of the juvenile justice process to include specialized juvenile law, role of the juvenile law, role of the juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency. 3 credit hours. (A)

### **CRIJ 2313 Correctional Systems and Practices**

This course is a survey of institutional and non-institutional corrections. Emphasis will be placed on the organization and operation of correctional systems; treatment and rehabilitation; populations served; Constitutional issues; and current and future issues. 3 credit hours. (A)

### **CRIJ 2314 Criminal Investigation**

Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation. 3 credit hours. (A)

### **CRIJ 2323 Legal Aspects of Law Enforcement**

Police authority; responsibilities; constitutional constraints; laws of arrest, search, and seizure; and police liability. 3 credit hours. (A)

### **CRIJ 2328 Police Systems and Practices**

This course examines the establishment, role and function of police in a democratic society. It will focus on types of police agencies and their organizational structure, police-community interaction, police ethics, and use of authority. 3 credit hours. (A)

### **CRPT 1311 Roof Systems**

Principles of design and construction of a roof system incorporating gable, hip, valley and intersections. Emphasis given to safe work practices and the use and maintenance of tools and equipment. Prerequisite: CNBT 1318. 3 credit hours. (W)

### **CRPT 1315 Wall Systems**

Identification of components; construction of wall systems; safe work practices; and the use and maintenance of tools and equipment. Lab required. Prerequisite: CNBT 1318. 3 credit hours. (W)

### **CRPT 1323 Floor Systems**

An introduction to common floor systems. Includes component identification; construction of a floor system; safe work practices; and the use and maintenance of tools and equipment. Lab required. Prerequisite: CNBT 1318. 3 credit hours. (W)

### **CRPT 1325 Forms and Foundations I**

Construction of basic form and foundation systems including related safety, tools, equipment, and building layout. Emphasis on safe work practices and the use and maintenance of tools and equipment. Lab required. Prerequisite: CNBT 1318. 3 credit hours. (W)

### **CRPT 1341 Exterior Finish Systems**

Installation of exterior finish systems and components including the placement and installation of cornice, windows, doors, siding, and flashing. Emphasis on safe work practices and the use and maintenance of tools and equipment. Lab required. Prerequisite: CNBT 1318. 3 credit hours. (W)

### **CRPT 1345 Interior Finish Systems**

Installation of interior finish systems and components including the placement and installation of doors, trim, floor, wall, and ceiling finishes. Emphasis on safe work practices and use and maintenance of tools and equipment. Lab required. Prerequisite: CNBT 1318. 3 credit hours. (W)

### **CSFA 1172 Pharmacology and Anesthesia**

Pharmacology and Anesthesia will provide the surgical assisting student with the fundamentals of basic pharmacology and clinical pharmacology related to the surgical patient. The course will also examine the basics of anesthesia methods and agents and the association with various surgical situations. Lab required. 1 credit hour. (W)

### **CSFA 1173 Principles of Surgical Assisting Lab I**

A lab course that teaches fundamental skills: Placement of monitoring devices, review of bladder catheterization,

surgical positioning, application of tourniquets, prepping and draping, operative instrumentation, visualization techniques, hemostasis, suturing and knot tying techniques, dressings and drainage systems, post-operative pain control methods, and the use of special equipment. Lab required. 1 credit hour. (W)

### **CSFA 1175 Perioperative Microbiology and Bioscience**

Course covers three main components: fundamental concepts in microbiology and infection, major clinical syndromes corresponding to the clinical specialties, and additional information on bacteriology, virology, parasitology, mycology, and entomology, including related laboratory tests and antibiotics. Emphasis on surgical events related to wound healing and the integrity of the surgical wound. Also covered are different diagnostic tests and the relationship between those tests and the management of the surgical patient. In addition, issues surrounding the care and handling of surgical specimens, management of the critically ill patient, thermoregulatory devices, fluid balances and related issues and, finally, skin assessment are discussed in detail. Lab required. 1 credit hour. (W)

### **CSFA 1176 Complications in Surgery**

Surgical complications, including hemorrhage, perforation of viscus or cavity, contamination, exposure, retraction, compression injuries, cardiac events, sudden hypoxia, sudden shock, interruption of surgical supervision, critical equipment failure and corrective measures are discussed, in addition to how to initiate the appropriate course of action to address these situations. 1 credit hour. (W)

### **CSFA 1371 Fundamentals and Surgical Safety**

Fundamentals and Surgical Safety will provide the surgical assisting student with basic fundamentals and the surgical assistant's role in the proper and safe positioning of the surgical patient, use of pneumatic devices, drapes and draping, proper skin preparation, instrumentation, exposure and visualization techniques, post-operative pain control, patient transport, and provide instruction of surgical monitoring devices. Fundamentals and Surgical Safety will also provide the surgical assisting student with information and appreciation of the importance of safety in the surgical setting. Lab required. 3 credit hours. (W)

### **CSFA 2171 Role Definition, Ethical, Legal, and Moral Responsibilities**

Course addresses factors that will result in positive team relationships, the practice of professional ethics, and the parameters of one's specific role, including the identification of certain possible crises and problem areas, with an understanding as to how the Surgical Assistant

should deal with each given situation. Different legal definitions and terminology are covered, and how to understand and identify Operating Room situations that could lead to ethical conflict. Students also gain an understanding of appropriate (and legal) decision-making, as well as what establishes negligence, basic patient and caregiver rights, Operating Room incidents that could result in litigation, and problems peculiar to the Surgical Assistant's role. 1 credit hour. (W)

### **CSFA 2173 Principles of Surgical Assisting Lab II**

A lab course continuation that teaches fundamental skills: Placement of monitoring devices, review of bladder catheterization, surgical positioning, application of tourniquets, prepping and draping, operative instrumentation, visualization techniques, hemostasis, suturing and knot tying techniques, dressings and drainage systems, post-operative pain control methods, and the use of special equipment. Lab required. 1 credit hour. (W)

### **CSFA 2371 Surgical Procedures**

Surgical Procedures will provide the surgical assisting student with an in-depth procedural analysis of most major surgeries performed in the operating room; delivering step-by-step surgical, anatomical, and physiological instruction in preparation for their clinical externship. Lab required. 3 credit hours. (W)

### **CSFA 2372 Operative Anatomy and Pathophysiology I**

A systematic investigation of the structure and organization of the human body and the mechanism and manifestation of different human diseases. The basic science of pathology is concerned with the etiology and pathogenesis of disease. Essential information is provided for understanding the diagnosis of disease in the clinical setting. When studying anatomy, the emphasis must be based on regional anatomy with surgical anatomy as the critical component, as opposed to the entry-level approach of systemic anatomy. Surgical anatomy is the critical factor with an emphasis on advanced anatomical knowledge that is applied towards the surgical diagnosis and procedure. This course will thoroughly examine several major surgical specialties: General, Plastics, Obstetrics and Gynecology, Ortho/Joints, Colorectal, Robotics, and Cardio/Thoracic/Vascular. This course has been specifically prepared for the surgical assisting Advanced Technical Certificate program. Lab required. 3 credit hours. (W)

### **CSFA 2373 Operative Anatomy and Pathophysiology II**

A continuation of the investigation of the structure and

organization of the human body and the mechanism and manifestation of different human diseases. The basic science of pathology is concerned with the etiology and pathogenesis of disease. Essential information is provided for understanding the diagnosis of disease in the clinical setting. When studying anatomy, the emphasis must be based on regional anatomy with surgical anatomy as the critical component, as opposed to the entry-level approach of systemic anatomy. Surgical anatomy is the critical factor with an emphasis on advanced anatomical knowledge that is applied towards the surgical diagnosis and procedure. This course will thoroughly examine several major surgical specialties: General, Plastics, Obstetrics and Gynecology, Ortho/Joints, Colorectal, Robotics, and Cardio/Thoracic/Vascular. This course has been specifically prepared for the surgical assisting Advanced Technical Certificate program. Lab required. 3 credit hours. (W)

#### **CSFA 2472 Suturing, Knot Tying, Hemostasis, and Wound Healing**

Suturing, Knot Tying, Hemostasis, and Wound Healing is a comprehensive lab course designed to provide instruction of and participation in the various suturing and tying techniques including simple and complex stitches, interrupted and running stitches, two-handed, one-handed, and instrument knot tying techniques. The course will provide the surgical assisting student with the detailed principles of wound healing, the interaction of a complex cascade of cellular events that generates resurfacing, reconstitution, and restoration of the tensile strength of the surgical wound. The course will also provide an in-depth and interactive discussion of hemostatic methods: chemical/topical agents, sutures and ties, direct pressure, and physical agents. Lab required. 4 credit hours. (W)

#### **CSFA 2473 Surgical Assisting Clinical I**

Surgical Assisting Clinical I is intended to provide training and clinical practice in basic surgical skills applicable to the surgical assisting student. A student enrolled in the course is assigned to qualified preceptors - surgeons who provide direct supervision and guidance during the clinical rotation. Each student in the course is required to complete 140 cases with 100 percent skill competency. To fulfill the role of the surgical assistant, the student must perform with proficiency in a minimum of 20 General Surgery cases with the remaining cases divided between two or more specialty areas, also with a minimum of 20 cases in each. 4 credit hours. (W)

#### **CSFA 2474 Surgical Assisting Clinical II**

Surgical Assisting Clinical II is intended to provide training and clinical practice in basic surgical skills

applicable to the surgical assisting student. A student enrolled in the course is assigned to qualified preceptors - surgeons who provide direct supervision and guidance during the clinical rotation. Each student in the course is required to complete 140 cases with 100 percent skill competency. To fulfill the role of the surgical assistant, the student must perform with proficiency in a minimum of 20 General Surgery cases with the remaining cases divided between two or more specialty areas, also with a minimum of 20 cases in each. 4 credit hours. (W)

#### **CYBR 3310 Introduction to Cryptography**

This course introduces the inner workings of cryptographic primitives and how to correctly use them. Specifically, the course covers cryptographic algorithms, protocols and techniques. The algorithms illustrate the art of encryption and secure hashing. The cryptographic protocols will expose the students to the world of building trust in an untrusted environment. Cryptographic techniques used in key management and algorithm choice will be explored. Lab required. Prerequisites: ITSY 2341 and Mathematics core complete. 3 credit hours.

#### **CYBR 3320 Digital and Device Forensics**

This course will help students understand the issues, techniques, and vulnerabilities of small scale (non-PC) digital device forensics. Emphasis will be placed on the forensically sound acquisition, preservation, analysis and presentation of small scale digital devices as evidence. Lab required. Prerequisite: ITSY 2343. 3 credit hours.

#### **CYBR 3330 Advanced Network Topologies and Protocols**

This course examines the advanced and novel areas of networks and protocols. Various networks will be examined with secure configurations, analysis, and response to threats. Lab required. Prerequisite: ITSY 2343. 3 credit hours.

#### **CYBR 3340 Cyber Crime**

An examination of Cyber Crimes and other abuses arising in a cyber environment. Traditional and contemporary forms of cybercrime will be explored, including hacking, insider threat, cyberbullying, hacktivism, cyberterrorism and others. Students will learn how computers can be either the target or the tool for committing cybercrimes. In addition, sociological and psychological aspects associated with cybercrime will be examined. Lab required. Prerequisite: ITSY 2341. 3 credit hours.

#### **CYBR 3350 Cyber Privacy**

This course examines the diverse components of privacy and the effects the Internet has on privacy. Approaches for individual, organization, and government privacy as

well as privacy laws will be examined. Lab required.  
Prerequisite: CYBR 3320. 3 credit hours.

### **CYBR 3360 Mobile Technologies**

This course examines how mobile systems function to allow secure voice and data access. Lab required.  
Prerequisite: CYBR 3330. 3 credit hours.

### **CYBR 4310 Penetration Testing**

This course provides students with methods of discovering ways of exploiting vulnerabilities to gain access to a system. Students will learn the methods, techniques, and tools to test the security of computer networks, infrastructure and applications. Lab required.  
Prerequisite: CYBR 3340. 3 credit hours.

### **CYBR 4320 Cyber Defense Operations**

An examination of the concepts used in defending a network, and the basic tools and techniques that can be used to protect a network and communication assets from cyber threats. Lab required. Prerequisite: CYBR 4310. 3 credit hours.

### **CYBR 4330 Virtualization and Cloud Security**

An examination of how modern host virtualization is implemented, deployed, and used. Students will understand the interfaces between major components of virtualized systems, and the implications these interfaces have for security. Students will examine the technologies and services that enable cloud computing, different types of cloud computing models and the security and legal issues associated with cloud computing. Lab required.  
Prerequisites: CYBR 3320 and CYBR 3340. 3 credit hours.

### **CYBR 4340 Information Assurance**

A study of common security architectures for the protection of information systems and data. An examination of the common standards related to information assurance. Application of architectures and standards within the rules, regulations for compliance. Lab required. Prerequisite: TTSY 2342. 3 credit hours.

### **CYBR 4350 Senior Project**

This course is designed to integrate all previous coursework. Under the guidance of the professor, each student completes a practical exercise in a cybersecurity role. Lab required. Prerequisites: CYBR 4320 and CYBR 4330. 3 credit hours.

### **DANC 1110 Tap Dance**

Instruction in the fundamental techniques and concepts associated with Tap dance. May be repeated one time for additional degree credit. Lab required. 1 credit hour. (A)  
Note: Students may take DANC 1110, DANC 1128,

DANC 1151, DANC 2151 for a combined total of no more than 18 credit hours.

### **DANC 1112 Dance Practicum**

Practicum in dance related topics with emphasis on practical skills necessary for the field. May be repeated one time for additional degree credit. Prerequisite: Consent of Instructor. 1 credit hour. (A)  
Note: May be repeated one time for additional credit.

### **DANC 1128 Ballroom and Social Dance**

Introductory instruction in the fundamental techniques and concepts associated with Ballroom and Social Dance. May be repeated one time for additional degree credit. Lab required. 1 credit hour. (A)  
Note: Students may take DANC 1110, DANC 1128, DANC 1151, and DANC 2151 for a combined total of no more than 18 credit hours.

### **DANC 1151 Freshman Dance Performance**

Instruction in dance performance through experiential projects at the freshman level. May be repeated one time for additional degree credit. Lab required. Prerequisite: Audition. 1 credit hour. (A)  
Note: Students may take DANC 1110, DANC 1128, DANC 1151, and DANC 2151 for a combined total of no more than 18 credit hours.

### **DANC 1201 Dance Composition - Improvisation**

This introductory course in improvisation will investigate spontaneous problem solving as a means of generating movement for dance composition. Students will be called upon to explore and respond to various forms of stimuli in a safe and supportive learning environment within solo and group work. Lab required. 2 credit hours. (A)

### **DANC 1241 Beginning Ballet**

Instruction in the fundamental techniques and concepts associated with ballet. May be repeated one time for additional degree credit. Lab required. 2 credit hours. (A)  
Note: May be repeated one time for additional credit.

### **DANC 1245 Beginning Modern Dance**

Instruction in the fundamental techniques and concepts associated with the concert form of modern dance. May be repeated one time for additional degree credit. Lab required. 2 credit hours. (A)  
Note: May be repeated one time for additional credit.

### **DANC 1247 Beginning Jazz Dance**

Instruction in the fundamental techniques and concepts associated with jazz dance. May be repeated one time for additional degree credit. Lab required. 2 credit hours. (A)  
Note: May be repeated one time for additional credit.

**DANC 1301 Dance Composition - Choreography**

This course is an examination of the principles of movement generation, phrasing, choreographic structure, and manipulation. Integration of choreographic principles will foster the growth of personal artistic style. Lab required. 3 credit hours. (A)

**DANC 1305 World Dance**

A survey of dances from different cultures, their histories, and their influences on contemporary dance and society. Cultural origins, significance, motivations and techniques will be explored experientially. 3 credit hours. (A)

**DANC 2151 Sophomore Dance Performance**

Instruction in dance performance through experiential projects at the sophomore level. May be repeated for credit once. Lab required. Prerequisite: DANC 1151, Audition. 1 credit hour. (A)

**DANC 2241 Intermediate Ballet**

Instruction in the intermediate techniques and concepts associated with ballet. May be repeated one time for additional degree credit. Lab required. Prerequisite: DANC 1241 or Consent of Instructor. 2 credit hours. (A)  
Note: May be repeated one time for additional credit.

**DANC 2245 Intermediate Modern Dance**

Instruction in the intermediate techniques and concepts associated with the concert form of modern dance. May be repeated one time for additional degree credit. Lab required. Prerequisite: DANC 1245 or Consent of Instructor. 2 credit hours. (A)  
Note: May be repeated one time for additional credit.

**DANC 2247 Intermediate Jazz Dance**

Instruction in the intermediate techniques and concepts associated with jazz dance. May be repeated one time for additional degree credit. Lab required. Prerequisite: DANC 1247 or Consent of Instructor. 2 credit hours. (A)  
Note: May be repeated one time for additional credit.

**DANC 2303 Dance Appreciation**

A general survey of dance forms designed to create an appreciation of the vocabulary, techniques, and purposes of the creative process. This course includes critical interpretation and evaluations of choreographic works and dance forms within cultural and historical contexts. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)

**DANC 2389 Academic Co-op Dance**

Integrates on-campus study with practical hands-on work experience in dance. In conjunction with class seminars, the student will set specific goals and objectives in the

study of dance. Contact the Cooperative Work Experience Office. 3 credit hours. (A)

**DFTG 1305 Technical Drafting**

Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views. Lab required. 3 credit hours. (W)

**DFTG 1309 Basic Computer-Aided Drafting**

An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; and plot/print to scale. Lab required. 3 credit hours. (W)

**DFTG 1317 Architectural Drafting-Residential**

Architectural drafting procedures, practices, terms, and symbols. Preparation of detailed working drawings for residential structures. Emphasis on light frame construction methods. Lab required. Prerequisite: DFTG 2328. 3 credit hours. (W)

**DFTG 1330 Civil Drafting I**

Preparation of civil drawings including drafting methods and principles used in civil engineering. Lab required. Prerequisite: DFTG 1317. 3 credit hours. (W)

**DFTG 1333 Mechanical Drafting**

Study of mechanical drawings using dimensioning and tolerances, sectioning techniques, orthographic projection, and pictorial drawings. Lab required. Prerequisite: DFTG 2319. 3 credit hours. (W)

**DFTG 1345 Parametric Modeling and Design**

Parametric-based design software for 3D design and drafting. Lab required. Prerequisite: DFTG 1372. 3 credit hours. (W)

**DFTG 1371 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: DFTG 1333. 3 credit hours. (W)

**DFTG 1372 SOLIDWORKS Essentials**

A study of mechanical drafting and design using SOLIDWORKS mechanical design automation software

to build parametric models of parts and assemblies. The course teaches how to make drawings of those parts and assemblies through the use of dimensioning and tolerancing, sectioning techniques and orthographic projection. Lab required. 3 credit hours. (W)

**DFTG 2319 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: DFTG 1309. 3 credit hours. (W)

**DFTG 2321 Topographical Drafting**

Plotting of surveyors field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**DFTG 2328 Architectural Drafting-Commercial**

Architectural drafting procedures, practices, governing codes, terms and symbols, including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Lab required. Prerequisite/Concurrent Enrollment: DFTG 1309. 3 credit hours. (W)

**DFTG 2332 Advanced Computer-Aided Drafting**

Application of advanced CAD techniques. Lab required. Prerequisite/Concurrent Enrollment: DFTG 1372. 3 credit hours. (W)

**DFTG 2338 Final Project - Advanced Drafting**

A drafting course in which students participate in a comprehensive project from conception to conclusion. Lab required. Prerequisites: DFTG 1317, DFTG 1333, and DFTG 2350. 3 credit hours. (W)

**DFTG 2350 Geometric Dimensioning and Tolerancing**

Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**DFTG 2373 Advanced SOLIDWORKS**

Study of advanced topics in SOLIDWORKS mechanical drafting and design. The course teaches how to build assemblies, to create professional drawing, and to use various SOLIDWORKS tools to manage information to facilitate the design process. Lab required. Prerequisite: DFTG 1372. 3 credit hours. (W)

**DFTG 2381 Cooperative Education-Drafting and Design Technology/Technician, General**

Career-related activities encountered in the student's area

of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**DFTG 2432 Advanced Computer-Aided Drafting**

Application of advanced CAD techniques. Lab required. Prerequisite / Concurrent enrollment: DFTG 1372. 4 credit hours. (W)

**DHYG 1201 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 required. Prerequisites: BIOL 2401 and BIOL 2402; both with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

**DHYG 1207 General and Dental Nutrition**

General nutrition and nutritional biochemistry emphasizing the effect nutrition has on oral health. Prerequisite: DHYG 1431 (or DHYG 1331) with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

**DHYG 1211 Periodontology**

Normal and diseased periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics. Prerequisites: DHYG 1227 and DHYG 1261; both with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

**DHYG 1215 Community Dentistry**

The principles and concepts of community public health and dental health education emphasizing community assessment, educational planning, implementation, and evaluation including methods and materials used in teaching dental health education in various community settings. Additionally, this course includes rotation schedule into the community (4 hours weekly). Lab required. Prerequisites: DHYG 1227, DHYG 1261 and ENGL 1301; all with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

**DHYG 1219 Dental Materials**

Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry. Lab required. Prerequisite:



DHYG 1431 with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

### **DHYG 1227 Preventive Dental Hygiene Care**

The role of the dental hygienist as a therapeutic oral health care provider with emphasis on concepts of disease management, health promotion, communication, and behavior modification. Lab required. Prerequisites: DHYG 1201 and DHYG 1431, both with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

### **DHYG 1235 Pharmacology for the Dental Hygienist**

Classification of drugs and their uses, actions, interactions, side effects, contraindications with emphasis on dental applications. Prerequisite: DHYG 1431 with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

### **DHYG 1239 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. Lab required. Prerequisites: DHYG 1227 and DHYG 1261; both with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

### **DHYG 1261 Clinical I-Dental Hygienist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: DHYG 1201 and DHYG 1431; both with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

### **DHYG 1304 Dental Radiology**

Fundamentals of oral radiography, including techniques, interpretation, quality assurance, and ethics. Lab required. Corequisite: DHYG 1201, or consent of Program Director. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

### **DHYG 1431 Preclinical Dental Hygiene**

Foundational knowledge for performing clinical skills on patients with emphasis on procedures and rationale for performing dental hygiene care. Introduction to ethical principles as they apply to dental hygiene care. Lab required. Prerequisites: BIOL 2401 and BIOL 2402; both with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

### **DHYG 2102 Applied Community Dentistry**

Application of 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. Lab required. Prerequisite: DHYG 1215 with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 1 credit hour. (W)

### **DHYG 2153 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. Prerequisite: Admitted to the Dental Hygiene Program. Major Requirement: AAS - Dental Hygiene. 1 credit hour. (W)

### **DHYG 2201 Dental Hygiene Care I**

Dental hygiene care for the medically or dentally compromised patient including supplemental instrumentation techniques. Prerequisites: DHYG 1227 and DHYG 1261; both with a grade of "C" or better. Corequisite: DHYG 2361, or consent of Program Director. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

### **DHYG 2231 Dental Hygiene Care II**

A continuation of Dental Hygiene Care I. Dental hygiene care for the medically or dentally compromised patient including advanced instrumentation techniques. Lab required. Prerequisites: DHYG 2201 and DHYG 2361; both with a grade of "C" or better. Major Requirement: AAS - Dental Hygiene. 2 credit hours. (W)

### **DHYG 2361 Clinical II - Dental Hygienist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Additionally, this course is 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: DHYG 1227 and DHYG 1261; both with a grade of "C" or better. Corequisite: DHYG 2201, or consent of Program Director. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

### **DHYG 2363 Clinical III-Dental Hygienist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is

provided by the clinical professional. Prerequisites: DHYG 2201 and DHYG 2361; both with a grade of “C” or better. Corequisite: DHYG 2231. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

#### **DMSO 1110 Introduction to Sonography**

An introduction to the profession of sonography and the role of the sonographer. Emphasis on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and history of the profession. 1 credit hour. (W)

#### **DMSO 1166 Practicum 2 - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DMSO 1266 1 credit hour. (W)

#### **DMSO 1167 Practicum 1 - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. 1 credit hour. (W)

#### **DMSO 1201 Techniques of Medical Sonography**

Scanning techniques. Includes scan protocols and procedures within the laboratory setting utilizing live scanning and/or simulated experience. Lab required. 2 credit hours. (W)

#### **DMSO 1202 Basic Ultrasound Physics**

Basic acoustical physics and acoustical waves in human tissue. Emphasis on ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission, and resolution of sound beams. Lab required. 2 credit hours. (W)

#### **DMSO 1210 Introduction to Sonography**

An introduction to the profession of sonography and the role of the sonographer. Emphasis on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and history of the profession. 2 credit hours. (W)

#### **DMSO 1266 Practicum 1 - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. 2 credit hours. (W)

#### **DMSO 1341 Abdominopelvic Sonography**

Normal anatomy and physiology of the abdominal and pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols. Lab required. 3 credit hours. (W)

#### **DMSO 1355 Sonographic Pathophysiology**

Pathology and pathophysiology of the abdominal structures visualized with ultrasound. Includes abdomen, and pelvis. Lab required. 3 credit hours. (W)

#### **DMSO 1366 Practicum 3 - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DMSO 1166 3 credit hours. (W)

#### **DMSO 1441 Abdominopelvic Sonography**

Normal anatomy and physiology of the abdominal and pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols. Lab required. 4 credit hours. (W)

#### **DMSO 1455 Sonographic Pathophysiology**

Pathology and pathophysiology of the abdominal structures visualized with ultrasound. Includes abdomen and pelvis. Lab required. 4 credit hours. (W)

#### **DMSO 1466 Practicum 2 - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. 4 credit hours. (W)

#### **DMSO 2130 Advanced Ultrasound and Review**

Knowledge, skills, and professional values within a legal and ethical framework addressing emerging technologies and professional development. 1 credit hour. (W)

#### **DMSO 2230 Advanced Ultrasound and Review**

Knowledge, skills, and professional values within a legal and ethical framework addressing emerging technologies and professional development. 2 credit hours. (W)

#### **DMSO 2243 Advanced Ultrasound Physics**

Theory and application of ultrasound principles. Includes advances in ultrasound technology. Lab required. Prerequisite: DMSO 1202. 2 credit hours. (W)

#### **DMSO 2253 Sonography of Superficial Structures**

Detailed study of normal and pathological superficial structures as related to scanning techniques, patient

history and laboratory data, transducer selection, and scanning protocols. Lab required. 2 credit hours. (W)

**DMSO 2267 Practicum 5 - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DMSO 2367 2 credit hours. (W)

**DMSO 2341 Sonography of Abdominopelvic Pathology**

Pathologies and disease states of the abdomen and pelvis as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Emphasizes endocavitary sonographic anatomy and procedures including pregnancy. Lab required. 3 credit hours. (W)

**DMSO 2342 Sonography of High Risk Obstetrics**

Maternal disease and fetal abnormalities. Includes scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Lab required. 3 credit hours. (W)

**DMSO 2353 Sonography of Superficial Structures**

Detailed study of normal and pathological superficial structures as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Lab required. 3 credit hours. (W)

**DMSO 2367 Practicum 4 - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DMSO 1366 3 credit hours. (W)

**DMSO 2405 Sonography of Obstetrics/Gynecology**

Detailed study of the pelvis and obstetrics/gynecology as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Lab required. 4 credit hours. (W)

**DRAM 1120 Theatre Practicum I**

Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Additionally, this course is a practicum in theatre with emphasis on performance techniques and procedures, including a performance role in a college production. Flexible enrollment. Prerequisite: Consent of Instructor. 1 credit hour. (A)  
Note: Students may take DRAM 1120, DRAM 1121,

DRAM 2120, and DRAM 2121 for a combined total of no more than 4 credit hours.

**DRAM 1121 Theatre Practicum II**

Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Additionally, this course is a practicum in theatre with emphasis on theatre techniques and procedures, including technical responsibilities in the production of a college play. Flexible enrollment. Prerequisite: Consent of Instructor. 1 credit hour. (A)  
Note: Students may take DRAM 1120, DRAM 1121, DRAM 2120, and DRAM 2121 for a combined total of no more than 4 credit hours.

**DRAM 1310 Theatre Appreciation**

Survey of theater including its history, dramatic works, stage techniques, production procedures, and relation to other art forms. Participation in productions may be required. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)

**DRAM 1322 Stage Movement**

Principles, practices, and exercises in awareness, relaxation, freedom, flexibility, and expressiveness in the actor's physical instrument. Lab required. 3 credit hours. (A)

**DRAM 1330 Stagecraft I**

Study and application of the methods and components of theatrical production which may include one or more of the following: theater, facilities, scenery construction and painting, properties, lighting, costume, makeup, sound, and theatrical management. Lab required. 3 credit hours. (A)

**DRAM 1341 Stage Makeup**

Design and execution of makeup for the stage performer. Includes discussion of makeup principles and practical experience of makeup application. Lab required. 3 credit hours. (A)

**DRAM 1342 Costume Technology**

Introduction to the process and application of the fundamental skills of costume production, modification, and maintenance. Lab required. 3 credit hours. (A)

**DRAM 1351 Acting I**

An introduction to the fundamental principles and tools of acting as used in auditions, rehearsals, and performances. This may include ensemble performing, character and script analysis, and basic theater terminology. This exploration will emphasize the development of the actor's instrument: voice, body and imagination. Lab required. 3 credit hours. (A)

**DRAM 1352 Acting II**

Exploration and further training within the basic principles and tools of acting, including an emphasis on critical analysis of oneself and others. The tools include ensemble performing, character and script analysis, and basic theater terminology. This will continue the exploration of the development of the actor's instrument: voice, body and imagination. Lab required. Prerequisite: DRAM 1351 or consent of Instructor. 3 credit hours. (A)

**DRAM 2120 Theatre Practicum III**

Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Additionally, this course is a continuation of DRAM 1120, and is a practicum in theatre with emphasis on advanced performance techniques and procedures; as well as specialized training in practical skill areas related to performance. Flexible enrollment. Prerequisite: Consent of Instructor. 1 credit hour. (A)

Note: Students may take DRAM 1120, DRAM 1121, DRAM 2120, and DRAM 2121 for a combined total of no more than 4 credit hours.

**DRAM 2121 Theatre Practicum IV**

Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Additionally, this course is a continuation of DRAM 1121, and is a practicum in theatre with emphasis on advanced theatre techniques and procedures; as well as specialized training in practical skill areas related to technical theatre areas and theatre technology. Flexible enrollment. Prerequisite: Consent of Instructor. 1 credit hour. (A)

Note: Students may take DRAM 1120, DRAM 1121, DRAM 2120, and DRAM 2121 for a combined total of no more than 4 credit hours.

**DRAM 2331 Stagecraft II**

Continued study and application of the methods and components of theatrical production which may include one or more of the following: theater facilities, scenery construction and painting, properties, lighting, costume, makeup, sound and theatrical management. Lab required. 3 credit hours. (A)

**DRAM 2335 Theater Design**

Survey of principles and practices of theater design and its elements. The fundamentals of art and their application to major areas of theatrical design. Lab required. Prerequisite: DRAM 1330. 3 credit hours. (A)

**DRAM 2336 Voice for the Actor**

Principles, practices, and exercises in awareness,

relaxation, freedom, flexibility, and expressiveness in the actor's vocal instrument. 3 credit hours. (A)

**DRAM 2351 Acting III**

Development of basic skills and techniques of acting including increased sensory awareness, ensemble performing, character analysis, and script analysis. Emphasis on the mechanics of voice, body, emotion, and analysis as tools for the actor. Lab required. 3 credit hours. (A)

**DRAM 2355 Script Analysis**

Examination of foundational skills for understanding the structure and content of play scripts for interpretation and conceptualization in theater productions by directors, designers, actors, and technicians. Introduces students to significant plays in the history of dramatic literature in the playwright's social and cultural context. 3 credit hours. (A)

**DRAM 2361 History of Theater I**

Study of the history of the theater from primitive times through the Renaissance. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)

**DRAM 2362 History of Theater II**

Study of the history of the theater from the Renaissance through today. Prerequisite: Meet TSI requirement for INRW 0315; or equivalent. 3 credit hours. (A)

**DRAM 2366 Film Appreciation**

Survey and analyze cinema including history, film techniques, production procedures, selected motion pictures, and cinema's impact on and reflection of society. Additionally, this course covers the period of 1890 to 1949. Lab required. 3 credit hours. (A)

Note: Students may take either DRAM 2366 or COMM 2366, but not both.

**DRAM 2389 Academic Co-op Drama**

Integrates on campus study with practical hands-on work experience in drama. In conjunction with class seminars, the student will set specific goals and objectives in the study of drama. Contact the Cooperative Work Experience Office. 3 credit hours. (A)

**DSAE 1315 Principles of Adult Echocardiography**

An introduction to cardiovascular anatomy and physiology, including hemodynamics and spatial relationships of the normal adult heart. Topics include anatomical correlation of 2-D, M-Mode, and Doppler sonographic imaging. Scanning techniques are correlated and taught in the laboratory sessions. Lab required. 3 credit hours. (W)

**DSAE 1340 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. 3 credit hours. (W)

**DSAE 2303 Cardiovascular Concepts**

Anatomy, physiology, and pathophysiology of the cardiovascular system. Focuses on cardiac and vascular structural anatomy and relationships, electrical innervation, embryology, and hemodynamics of the heart and vascular system. Includes pathophysiology, etiology, pathology, signs, symptoms, risk factors, and treatment of cardiovascular diseases. 3 credit hours. (W)

**DSVT 1300 Principles of Vascular Technology**

Introduction to non-invasive vascular technology modalities. Includes 2D imaging, Doppler, plethysmography, and segmental pressures. Emphasis on performing basic venous and arterial imaging and non-imaging exams. Lab required. 3 credit hours. (W)

**DSVT 2200 Vascular Technology Applications**

Non-invasive vascular technology. Includes 2-D imaging, Doppler, plethysmography, and segmental pressures. Emphasizes protocols for performing basic venous and arterial imaging and non-imaging exams. Lab required. Prerequisite: DSVT 1300 2 credit hours. (W)

**ECON 1301 Introduction to Economics**

A survey of microeconomic and macroeconomic principles of non-business majors. Microeconomic topics will include supply and demand, consumer behavior, price and output decisions by firms under various market structures, factor markets, market failures, international trade, and exchange rates. Macroeconomic topics will include national income, unemployment, inflation, business cycles, aggregate supply and demand, monetary and fiscal policy, and economic growth. 3 credit hours. (A)

**ECON 2301 Principles of Macroeconomics**

An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**ECON 2302 Principles of Microeconomics**

Analysis of the behavior of individual economic agents, including consumer behavior and demand, producer

behavior and supply, price and output decisions by firms under various market structures, factor markets, market failures, and international trade. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**ECON 2389 Academic Co-op Economics**

Integrates on-campus study with practical hands-on work experience in economics. In conjunction with class seminars, the student will set specific goals and objectives in the study of economics. Contact the Cooperative Work Experience Office. 3 credit hours. (A)

**ECRD 1111 Electrocardiography**

Fundamentals of cardiovascular anatomy and physiology. Includes basic electrocardiography procedures, interpretation of basic dysrhythmias, and appropriate treatment modalities. Prerequisite/Concurrent enrollment: DSAE 1340. 1 credit hour. (W)

**EDUC 1100 Learning Framework**

A study of the research and theory in the psychology of learning, cognition, and motivation, factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. Lab required. 1 credit hour. (A)

**EDUC 1300 Learning Framework**

A study of the: 1) research and theory in the psychology of learning, cognition, and motivation; 2) factors that impact learning, and 3) application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. 3 credit hours. (A)

Note: Students may only take one of the following:  
EDUC 1200 or EDUC 1300.

### **EDUC 1301 Introduction to the Teaching Profession**

An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse student populations and provides students with support from college and school faculty, preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms. Course content should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in P-12 classrooms. Lab required. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)

### **EDUC 2301 Introduction to Special Populations**

An enriched, integrated pre-service course and content experience that provides 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. The course provides students with opportunities to participate in early field observations of P-12 special populations and should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Must include a minimum of 16 contact hours of field experience in P-12 classrooms with special populations. Lab required. Prerequisite: EDUC 1301. 3 credit hours. (A)

### **EECT 1348 Digital Signal Processing (DSP)**

A study of the architecture and applications of digital signal processors (DSP) including mathematical signal processing techniques. Lab required. 3 credit hours. (W)

### **EECT 1371 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 offers 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 its 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. 3 credit hours. (W)

### **EECT 2337 Wireless Telephony Systems**

Principles of wireless/cellular telephony systems to include call processing, hand-off, site analysis, antenna radiation patterns, commonly used test/maintenance equipment, and access protocol. Lab required. 3 credit hours. (W)

### **EECT 2380 Cooperative Education - Electrical, Electronic and Communications Engineering Technology Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **EECT 2439 Communications Circuits**

A study of communications systems with emphasis on amplitude modulation, frequency modulation, phase modulation, and digital pulse modulation. Discussion of several types of modulators, demodulators, receivers, transmitters, and transceivers. Lab required. Prerequisites: CETT 1425 and CETT 2471. 4 credit hours. (W)

### **ELMT 1301 Programmable Logic Controllers**

An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment. Lab required. Prerequisites: CETT 1409 and ELMT 1305. 3 credit hours. (W)

### **ELMT 1305 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. Prerequisite: TECM 1343. 3 credit hours. (W)

### **ELMT 2339 Advanced Programmable Logic Controllers**

Advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting



ladder logic, and interfacing to equipment. Lab required. Prerequisite: ELMT 1301. 3 credit hours. (W)

### **ELPT 1311 Basic Electrical Theory**

Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current. Lab required. 3 credit hours. (W)

### **ELPT 1321 Introduction to Electrical Safety and Tools**

Safety rules and regulations. Includes the selection, inspection, use, and maintenance of common tools for electricians. Lab required. 3 credit hours. (W)

### **ELPT 1325 National Electrical Code I**

An introductory study of the National Electrical Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on wiring design, protection, methods, and materials; equipment for general use; and basic calculations. Prerequisites: ELPT 1311 and ELPT 1321. 3 credit hours. (W)

### **ELPT 1329 Residential Wiring**

Wiring methods for single family and multi-family dwellings. Includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures. Lab required. Prerequisites: ELPT 1311 and ELPT 1321. 3 credit hours. (W)

### **ELPT 1341 Motor Control**

Operating principles of solid-state and conventional controls along with their practical applications. Includes braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretations. Lab required. Prerequisite: ELPT 1357. 3 credit hours. (W)

### **ELPT 1345 Commercial Wiring**

Commercial wiring methods. Includes overcurrent protection, raceway panel board installation, proper grounding techniques, and associated safety procedures. Lab required. Prerequisites: ELPT 1311 and ELPT 1321. 3 credit hours. (W)

### **ELPT 1357 Industrial Wiring**

Wiring methods used for industrial installations. Includes motor circuits, raceway and bus way installations, proper grounding techniques, and associated safety procedures. Lab required. Prerequisites: ELPT 1311 and ELPT 1321. 3 credit hours. (W)

### **ELPT 1371 Electrical Fundamentals**

Introduction to basic principles of electricity and electrical systems. Topics include electrical calculations, electrical measurements, and electrical safety procedures. Note: This course is designed for non-electrical majors. Lab required. 3 credit hours. (W)

### **ELPT 2305 Motors and Transformers**

Operation of single- and three-phase motors and transformers. Includes transformer banking, power factor correction, and protective devices. Lab required. Prerequisite: ELPT 1357. 3 credit hours. (W)

### **EMSP 1160 Clinical-Emergency Medical Technician (EMT Paramedic)-Basic**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Consent of Program Director. 1 credit hour. (W)

### **EMSP 1161 Clinical-Emergency Medical Technician (EMT Paramedic)-Advanced I**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Consent of Program Director. 1 credit hour. (W)

### **EMSP 1162 Clinical-Emergency Medical Technician (EMT Paramedic)-Advanced II**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Consent of Program Director. 1 credit hour. (W)

### **EMSP 1355 Trauma Management**

Knowledge and skills in the assessment and management of patients with traumatic injuries. Lab required. 3 credit hours. (W)

### **EMSP 1356 Patient Assessment and Airway Management**

Knowledge and skills required to perform patient assessment, airway management, and artificial ventilation. Lab required. Prerequisite: Consent of Program Director. 3 credit hours. (W)

### **EMSP 1371 Introduction to Emergency Medical Technician (EMT)**

Introduction to Emergency Medical Services including: history, organization and function, legal aspects, and ethics. Overview of human anatomy and physiology, patient assessment, airway control, and infection control techniques. Prerequisite: Consent of Program Director. Corequisites: EMSP 1160 and EMSP 1501. 3 credit hours. (W)

### **EMSP 1438 Introduction to Advanced Practice**

Fundamental elements associated with emergency medical services to include preparatory practices,

pathophysiology, medication administration, and related topics. Lab required. Prerequisites: EMSP 1160 and EMSP 1371 and EMSP 1501, or EMT-Basic certification, or consent of Program Director. 4 credit hours. (W)

#### **EMSP 1501 Emergency Medical Technician**

Preparation for certification as an Emergency Medical Technician (EMT). Lab required. Prerequisite: Consent of Program Director. Corequisite: EMSP 1160. 5 credit hours. (W)

#### **EMSP 2143 Assessment Based Management**

A summarative experience covering comprehensive, assessment-based patient care management for the paramedic level. Additionally, it includes specific care when dealing with pediatric, adult, geriatric, and special needs patients. 1 credit hour. (W)

#### **EMSP 2160 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. 1 credit hour. (W)

#### **EMSP 2206 Emergency Pharmacology**

A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages. Lab required. 2 credit hours. (W)

#### **EMSP 2267 Practicum-Emergency Medical (EMT Paramedic)**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. 2 credit hours. (W)

#### **EMSP 2305 EMS Operations**

Knowledge and skills to safely manage multi-casualty incidents and rescue situations; utilize air medical resources; identify hazardous materials and other specialized incidents. Lab required. Prerequisites: EMSP 1438, EMSP 1355 and EMSP 1356. 3 credit hours. (W)

#### **EMSP 2330 Special Populations**

Knowledge and skills necessary to assess and manage ill or injured patients in diverse populations to include neonatology, pediatrics, geriatrics, and other related topics. Lab required. Prerequisite: Consent of Program Director. 3 credit hours. (W)

#### **EMSP 2444 Cardiology**

Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation. Lab required. 4 credit hours. (W)

#### **EMSP 2534 Medical Emergencies**

Knowledge and skills in the assessment and management of patients with medical emergencies, including medical overview, neurology, gastroenterology, immunology, pulmonology, urology, hematology, endocrinology, toxicology, and other related topics. Lab required. 5 credit hours. (W)

#### **ENGL 1301 Composition I**

Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Lab required. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

#### **ENGL 1302 Composition II**

Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions. Lab required. Prerequisite: ENGL 1301. 3 credit hours. (A)

#### **ENGL 2307 Creative Writing I**

Practical experience in the techniques of imaginative writing. May include fiction, non-fiction, poetry, screenwriting, or drama. Additionally, this course does not satisfy the college requirements for a sophomore literature course. Prerequisite: ENGL 1302. 3 credit hours. (A)

#### **ENGL 2311 Technical and Business Writing**

Intensive study of and practice in professional settings. Focus on the types of documents necessary to make decisions and take action on the job, such as proposals, reports, instructions, policies and procedures, e-mail messages, letters, and descriptions of products and services. Practice individual and collaborative processes involved in the creation of ethical and efficient documents. Prerequisite: ENGL 1301. 3 credit hours. (A)

#### **ENGL 2322 British Literature I**

A survey of the development of British literature from the Anglo-Saxon period to the Eighteenth Century. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a diverse group of

authors and traditions. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours. (A)

### **ENGL 2323 British Literature II**

A survey of the development of British literature from the Romantic period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours. (A)

### **ENGL 2327 American Literature I**

A survey of American literature from the period of exploration and settlement through the Civil War. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours. (A)

### **ENGL 2328 American Literature II**

A survey of American literature from the Civil War to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours. (A)

### **ENGL 2332 World Literature I**

A survey of world literature from the ancient world through the sixteenth century. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours. (A)

### **ENGL 2333 World Literature II**

A survey of world literature from the seventeenth century to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours. (A)

### **ENGL 2341 Forms of Literature**

The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film. Prerequisite: ENGL 1302 or ENGL 2311. 3 credit hours. (A)

### **ENGL 2389 Academic Co-op English**

Integrates on-campus study with practical hands-on work experience in English. In conjunction with class seminars, the student will set specific goals and objectives in the study of English. Contact the Cooperative Work Experience Office. Prerequisites: Consent of Associate Dean and meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **ENGR 1201 Introduction to Engineering**

An introduction to the engineering profession with emphasis on technical communication and team-based engineering design. Prerequisite: MATH 1314 or equivalent academic preparation. 2 credit hours. (A)

### **ENGR 1304 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: MATH 1314 or equivalent academic preparation. 3 credit hours. (A)

### **ENGR 2105 Electrical Circuits I Laboratory**

Laboratory experiments supporting theoretical principles presented in ENGR 2305 involving DC and AC circuit theory, network theorems, time, and frequency domain circuit analysis. Introduction to principles and operation of basic laboratory equipment; laboratory report preparation. Prerequisites: MATH 2414 and PHYS 2425. Prerequisite/Concurrent enrollment: MATH 2320. Corequisite: ENGR 2305. 1 credit hour. (A)

### **ENGR 2106 Introduction to Digital Systems Laboratory**

Basic laboratory experiments supporting theoretical principles presented in ENGR 2306 involving design, construction, and analysis of combinational and sequential digital circuits and systems, including logic gates, adders, multiplexers, encoders, decoders, arithmetic logic units, latches, flip-flops, registers, and counters; preparation of laboratory reports. Prerequisite: MATH 1314. Corequisite: ENGR 2306. 1 credit hour. (A)

### **ENGR 2301 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. Lab required. Prerequisites: MATH 2414 and PHYS 2425. 3 credit hours. (A)

**ENGR 2302 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. Lab required. Prerequisite: ENGR 2301. 3 credit hours. (A)

**ENGR 2305 Electrical Circuits I**

Principles of electrical circuits and systems. Basic circuit elements (resistance, inductance, mutual inductance, capacitance, independent and dependent controlled voltage, and current sources). Topology of electrical networks; Kirchhoff's laws; node and mesh analysis; DC circuit analysis; operational amplifiers; transient and sinusoidal steady-state analysis; AC circuit analysis; first- and second-order circuits; Bode plots; and use of computer simulation software to solve circuit problems. Prerequisites: MATH 2414 and PHYS 2425. Prerequisite/Concurrent Enrollment: MATH 2320. 3 credit hours. (A)

**ENGR 2306 Introduction to Digital Systems**

Introduction to theory and design of digital logic, circuits, and systems. Number systems, operations and codes; logic gates; Boolean Algebra and logic simplification; Karnaugh maps; combinational logic; functions of combinational Logic; flip-flops and related devices; counters; shift registers; sequential logic; memory and storage. Prerequisite: MATH 1314. Corequisite: ENGR 2106. 3 credit hours. (A)

**ENGR 2308 Engineering Economics**

Methods used for determining the comparative financial desirability of engineering alternatives. Provides the student with the basic tools required to analyze engineering alternatives in terms of their worth and cost, an essential element of engineering practice. The student is introduced to the concept of the time value of money and the methodology of basic engineering economy techniques. The course will address some aspects of sustainability and will provide the student with the background to enable them to pass the Engineering Economy portion of the Fundamentals of Engineering exam. Prerequisite: MATH 2413. 3 credit hours. (A)

**ENGR 2332 Mechanics of Materials**

Stresses, deformations, stress-strain relationships, torsions, beams, shafts, columns, elastic deflections in beams, combined loading, and combined stresses. Behavior phenomena such as fracture, fatigue, and creep are introduced. Prerequisite: ENGR 2301. 3 credit hours. (A)

**ENGT 1401 Circuit Analysis I**

Fundamental concepts of electrical science covering potential, current and power in DC circuits. Fundamental laws and relationships applied to the analysis of circuits and networks: capacitance, inductance and magnetism; single-frequency concepts; the use of computer software in design and analysis of circuits. Lab required. Prerequisite/Concurrent enrollment: MATH 2412 equivalent or higher level. 4 credit hours. (A)

**ENTC 1323 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)

**ENTC 2380 Cooperative Education-Engineering Technology, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**ENVR 1401 Environmental Science I**

Lecture: A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. Lab: Activities will cover methods used to collect and analyze environmental data. Lab required. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A) Note: Students may take either ENVR 1401 or GEOL 1305 but not both.

**ENVR 1402 Environmental Science II**

Continued interdisciplinary study of both natural (biology, chemistry, geology) and social (economics, politics, ethics) sciences as they apply to the environment. Focus on energy issues, global warming, ozone loss, land use, conservation and management, deforestation, biodiversity, the history of environmental law and regulation and local environmental problems. Lab required. Prerequisite: ENVR 1401. 4 credit hours. (A)

**ESLC 0305 ESL Listening/Speaking, Intermediate**

Develops listening and speaking skills in speakers of languages other than English and prepares them to function in educational, vocational and/or personal English-speaking contexts. Additionally, 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 U.S. culture. Lab required. Prerequisite: ESL New Student Assessment for ESLC 0305. 3 credit hours. (D)  
 Note: ESLC 0305, ESLC 0310, ESLC 0325, and ESLX 0305 may be taken for a combined total of no more than 9 credit hours.

### **ESLC 0310 ESL Listening/Speaking, Advanced**

Develops listening and speaking skills in speakers of languages other than English and prepares them to function in educational, vocational and/or personal English-speaking contexts. 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. Formal speaking skills are focused upon through delivery of individual short 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 media. Focus is given to students' spoken grammar, pronunciation, vocabulary, and exposure to U.S. culture. Lab required. Prerequisite: ESL New Student Assessment for ESLC 0310; or successful completion of ESLC 0305. 3 credit hours. (D)  
 Note: ESLC 0305, ESLC 0310, ESLC 0325, and ESLX 0305 may be taken for a combined total of no more than 9 credit hours.

### **ESLC 0325 ESL Listening/Speaking Transitioning**

Develops listening and speaking skills in speakers of languages other than English and prepares them to function in coursework. Emphasis on developing non-native speakers' advanced oral communication and listening competencies. Students practice natural communication regarding academic concepts in classroom activities by working in dyads and in small and large groups. Formal speaking skills are focused upon through delivery of individual researched presentations and debates. Students participate in advanced level listening activities through interaction both in and out of the classroom and the use of video and audio media. Focus is given to students' pronunciation, vocabulary, and research as well as successful transitioning to SPCH 1311. Lab required. Prerequisite: ESL New Student

Assessment for ESLC 0325; or successful completion of ESLC 0310. 3 credit hours. (D)  
 Note: ESLC 0305, ESLC 0310, ESLC 0325, and ESLX 0305 may be taken for a combined total of no more than 9 credit hours.

### **ESLG 0305 ESL Grammar Intermediate**

Instruction for non-native speakers focuses on verb tenses, subject-verb agreement, word order, parts of speech, and modal auxiliaries. Course content supports ESLW 0305 objectives for grammar usage. Lab required. Prerequisite: ESL New Student Assessment for ESLG 0305. 3 credit hours. (D)

### **ESLG 0310 ESL Grammar Advanced**

Instruction for non-native speakers focuses on clause structure (independent and dependent), gerunds and infinitives, review of verb tenses, subject-verb agreement, and nouns and articles. Course content supports ESLW 0310 objectives for grammar usage. Lab required. Prerequisite: ESL New Student Assessment for ESLG 0310; or successful completion of ESLG 0305. 3 credit hours. (D)

### **ESLG 0325 ESL Grammar Transitioning**

Instruction for non-native speakers focuses on a variety of clause and phrase structures: noun clauses, adjective clauses, adjective phrases, adverb clauses, adverbial phrases, and conditionals. Course content supports ESLW0325 objectives for grammar usage as well as successful transition into ENGL 1301. Lab required. Prerequisite: ESL New Student Assessment for ESLG 0325; or successful completion of ESLG 0310. 3 credit hours. (D)

### **ESLR 0305 ESL Reading Intermediate**

Focuses on teaching students with intermediate level speaking and listening skills to identify topics, main ideas, and supporting details in simplified academic and literary texts. Lab required. Prerequisite: ESL New Student Assessment for ESLR 0305. Corequisite: ESLW 0305. 3 credit hours. (D)  
 Note: ESLR 0305, ESLR 0310, ESLR 0325, and ESLX 0310 may be taken for a combined total of no more than 9 credit hours.

### **ESLR 0310 ESL Reading Advanced**

Focuses on teaching vocabulary from the Academic Word List, word families, context clues, topics, main ideas, supporting details, transitions, and organizational patterns for improving comprehension of abridged and unabridged academic and literary texts. Lab required. Prerequisite: ESL New Student Assessment for ESLR 0310; or successful completion of ESLR 0305 and ESLW 0305. Corequisite: ESLW 0310. 3 credit hours. (D)

Note: ESLR 0305, ESLR 0310, ESLR 0325, and ESLX 0310 may be taken for a combined total of no more than 9 credit hours.

### **ESLR 0325 ESL Reading Transitioning**

Focuses on teaching non-native speakers of English with high intermediate reading skills to comprehend cultural allusions, connotation of vocabulary, implied main ideas, facts and opinions, inferences and conclusions, author's purpose, tone, point of view, and graphic aids in unabridged academic texts, accelerating reading rates and comprehension to transition to academic coursework. Lab required. Prerequisite: ESL New Student Assessment for ESLR 0325; or successful completion of ESLR 0310 and ESLW 0310. Corequisite: ESLW 0325. 3 credit hours. (D) Note: ESLR 0305, ESLR 0310, ESLR 0325, and ESLX 0310 may be taken for a combined total of no more than 9 credit hours.

### **ESLW 0305 ESL Writing Intermediate**

Focuses on sentence-level writing and paragraph-development (culminating in short multi-paragraph writing). Introduces students to pre-academic, academic, and experiential writing. Trains students to develop and organize ideas in a variety of rhetorical modes. Lab required. Prerequisite: ESL New Student Assessment for ESLW 0305. Corequisite: ESLR 0305. 3 credit hours. (D)

### **ESLW 310 ESL Writing Advanced**

Focuses on teaching sentence variety and academic essay writing in various rhetorical modes. Introduces concepts of summarizing articles with supported opinions, paraphrasing, and documentation. Lab required. Prerequisite: ESL New Student Assessment for ESLW 0310; or successful completion of ESLR 0305 and ESLW 0305. Corequisite: ESLR 0310. 3 credit hours. (D)

### **ESLW 0325 ESL Writing Transitioning**

Trains students to write academically acceptable papers in various rhetorical modes with a primary emphasis on argumentation. Focuses on mechanics of writing, common problems that ESL writers encounter, research, and documentation allowing students to successfully transition to ENGL 1301. Lab required. Prerequisite: ESL New Student Assessment for ESLW 0325; or successful completion of ESLR 0310 and ESLW 0310. Corequisite: ESLR 0325. 3 credit hours. (D)

### **ESLX 0305 ESL Pronunciation**

Emphasis on 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. Lab required. Prerequisite: ESL New Student Assessment for ESLX 0305. 3 credit hours. (D) Note: ESLC 0305, ESLC 0310, ESLC 0325, and ESLX 0305 may be taken for a combined total of no more than 9 credit hours.

### **ESLX 0310 ESL Vocabulary and Idioms**

Instruction in idiomatic American English for second language learners. Increases familiarity with idiomatic English to facilitate comprehension and production of idioms in spoken and written discourse. Lab required. Prerequisite: ESL New Student Assessment for ESLR 0310; or successful completion of ESLR 0305. 3 credit hours. (D) Note: ESLR 0305, ESLR 0310, ESLR 0325, and ESLX 0310 may be taken for a combined total of no more than 9 credit hours.

### **ESLX 0325 Test-Taking and Study Skills for Non-Native English Speakers**

Prepares 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 include information processing, memory retention, 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. Lab required. Prerequisite: ESL New Student Assessment for ESLX 0325; or successful completion of ESLR 0310 and ESLW 0310. 3 credit hours. (D)

### **FIRS 1301 Firefighter Certification I**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisite: Admission to the Program. 3 credit hours. (W)

### **FIRS 1313 Firefighter Certification III**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Prerequisites: FIRS 1407. 3 credit hours. (W)

### **FIRS 1319 Firefighter Certification IV**

One is a series of courses in basic preparation for a new



firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisite: FIRS 1313. 3 credit hours. (W)

### **FIRS 1323 Firefighter Certification V**

One is a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisite: FIRS 1319. 3 credit hours. (W)

### **FIRS 1329 Firefighter Certification VI**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisite: FIRS 1323. 3 credit hours. (W)

### **FIRS 1407 Firefighter Certification II**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisite: FIRS 1301, or consent of Program Director. 4 credit hours. (W)

### **FIRS 1433 Firefighter Certification VII**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Lab required. Prerequisite: FIRS 1329. 4 credit hours. (W)

### **FIRS 1491 Special Topics in Fire Science/Firefighting**

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. 4 credit hours. (W)

#### **Rope Rescue**

Fundamental skills required for safe and efficient rescue utilizing rope and specialized rescue

equipment. Topics, skills and knowledge meet applicable Rescue Technician Professional Qualifications in accordance with National Fire Protection Association (NFPA) 1006.

### **FIRS 2344 Driver/Operator-Pumper**

Meets curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Driver/Operator-Pumper. **\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION\*\***. 3 credit hours. (W)

### **FIRT 1301 Fundamentals of Fire Protection**

Orientation to the fire service, career opportunities, and related fields. This course meets Fire and Emergency Services Higher Education (FESHE) Model Curriculum core requirements. 3 credit hours. (W)

### **FIRT 1315 Hazardous Materials I**

The chemical characteristics and behavior of various materials. Storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation. 3 credit hours. (W)

### **FIRT 1327 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)

### **FIRT 1338 Fire Protection Systems**

Design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. This course meets Fire and Emergency Services Higher Education (FESHE) Model Curriculum core requirements. Must be a certified firefighter to enroll in this course. Prerequisite: Consent of Program Director. 3 credit hours. (W)

### **FIRT 1349 Fire Administration II**

In-depth study of fire service management as pertaining to budgetary requirements, administration, organization of divisions within the fire service, and the relationships between the fire service and outside agencies. 3 credit hours. (W)

### **FIRT 1391 Special Topics in Fire Protection and Safety Technology/Technician**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was

designed to be repeated multiple times to improve student proficiency. 3 credit hours. (W)

#### **Haz-Mat Technical Response**

Advanced skills for safe and effective mitigation of hazardous material and other complex incidents. Topics address all types of transportation and fixed facility emergencies consistent with National Fire Protection Association (NFPA) 1072. Prerequisite: Proof of Basic Firefighter certification or Hazardous Materials Awareness and Operations level certification from the Texas Commission on Fire Protection.

#### **FIRT 1392 Special Topics in Fire Services Administration**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. 3 credit hours. (W)

#### **Officer Leadership**

Course focused on fire executive management with emphasis on budgeting, human resources, emergency service delivery, planning, current events, and risk management in accordance with National Fire Protection Association (NFPA) 1021. Prerequisite: FIRT 1443 or proof of Fire Officer II certification from the Texas Commission on Fire Protection

#### **FIRT 1442 Fire Officer I**

Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer I certification. 4 credit hours. (W)

#### **FIRT 1443 Fire Officer II**

Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer II certification. Prerequisites: FIRT 1442 and FIRT 2305, or consent of Program Director. 4 credit hours. (W)

#### **FIRT 2305 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 on Fire Protection (TCFP) for Fire Instructor I certification. Prerequisite: Student must show proof of Basic Firefighter Certification from the Texas Commission on Fire Protection (TCFP), or consent of Program Director. 3 credit hours. (W)

#### **FIRT 2307 Fire Instructor II**

Development of individual lesson plans for a specific topic including learning objectives, instructional aids, and evaluation instruments. Includes techniques for supervision and coordination of activities of other instructors to meet the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Instructor II certification. Prerequisite: FIRT 2305 or consent of Program Director. 3 credit hours. (W)

#### **FIRT 2309 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. Must be a certified firefighter to enroll in this course. Prerequisite: Consent of Program Director. 3 credit hours. (W)

#### **FIRT 2351 Company Fire Officer**

A capstone course covering fire ground operations and supervisory practices. Includes performance evaluation of incident commander, safety officer, public information officer, and shift supervisor duties. 3 credit hours. (W)

#### **FITT 1370 Sports Tourism**

An examination of sport tourism in Collin County and its economic and social impact on the community and beyond. 3 credit hours. (W)

#### **FITT 1371 Principles of Promoting and Selling Sport and Recreation**

A survey of the selling process, advertising, consumer behavior, market research, strategic planning of sport or recreation as a consumer product. 3 credit hours. (W)

#### **FITT 1373 Legal and Ethical Issues in Sport and Recreation Management**

Examination of legal and ethical concepts related to sport and recreation management. Topics will include athletic participation and eligibility, public facility use issues, constitutional due process, and contracts and tort law as applied to participants and spectators. Concepts, models, and techniques to use in managing ethical dilemmas will be explored. 3 credit hours. (W)

#### **FITT 2371 Leadership in Sport and Recreation**

Principles of Leadership. The role of administration and leadership in the objectives, organization, and procedures of sport and recreational organizations. 3 credit hours. (W)

#### **FLMC 1301 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. Lab required. 3 credit hours. (W)

#### **FLMC 1331 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: ARTC 1325. Prerequisite/Concurrent enrollment: ARTV 1371. 3 credit hours. (W)

#### **FLMC 1380 Cooperative Education - Cinematography and Film/Video Production**

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 Associate Dean / Director of the program for further information. Prerequisite: FLMC 1331. 3 credit hours. (W)

#### **FLMC 2331 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: FLMC 1331. 3 credit hours. (W)

#### **FLMC 2333 Cinematography**

Advanced concepts of theoretical elements and practical applications of the cinematic craft. Lab required. Prerequisite: ARTV 1351. 3 credit hours. (W)

#### **FLMC 2334 Directing for Film or Video**

Analysis of directing styles to formulate a personal directing style. Includes directing a film or video production. Lab required. 3 credit hours. (W)

#### **FLMC 2336 Production Development – Producing**

In-depth study of the sequential steps of supervision in all phases of film or video production and distribution, including resource acquisition and allocation. Lab required. 3 credit hours. (W)

#### **FREN 1411 Beginning French I**

Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Lab required. 4 credit hours. (A)

#### **FREN 1412 Beginning French II**

Continuation of FREN 1411. Lab required. Prerequisite: FREN 1411 or consent of Associate Dean. 4 credit hours. (A)

#### **FREN 2311 Intermediate French I**

Continued development of the four basic language skills with increased attention to reading and writing. Instruction enhanced by slides, tapes, and other audio-visual aids. Prerequisite: FREN 1412 or consent of Associate Dean. 3 credit hours. (A)

#### **FREN 2312 Intermediate French II**

Continuation of FREN 2311. Prerequisite: FREN 2311 or consent of Associate Dean. 3 credit hours. (A)

#### **GAME 1303 Introduction to Game Design and Development**

Introduction to electronic game development and game development careers. Includes examination of history and philosophy of games, the game production process, employee factors for success in the field, and current issues and practices in the game development industry. Lab required. Prerequisite: ARTV 1345 or consent of Instructor or Associate Dean. 3 credit hours. (W)

#### **GAME 2309 Video Game Art II**

A study of industry-used, game-art techniques and its applications of game art assets. Utilizes tools and advanced techniques in the creation of assets for a game engine. Lab required. Prerequisite: ARTV 2345 or consent of Instructor. 3 credit hours. (W)

#### **GAME 2325 3-D Animation II - Character Set-Up**

Character animation for application interfaces. Prerequisite: ARTV 1341. Lab required. 3 credit hours. (W)

#### **GAME 2336 Lighting, Shading and Texture**

Advanced application of lighting, shading, and texture techniques to increase system performance for digital games and simulation models. Lab required. Prerequisite: ARTV 2345 or consent of Instructor. 3 credit hours. (W)

#### **GAME 2341 Game Scripting**

Scripting languages with emphasis on game concepts and simulations. Lab required. Prerequisite: GAME 1303 or consent of Instructor. 3 credit hours. (W)

#### **GAME 2359 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: GAME 1303. 3 credit hours. (W)

**GAME 2386 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: ARTV 1341. 3 credit hours. (W)

**GEOG 1301 Physical Geography**

This course introduces students to the processes that drive Earth's physical systems. Students will explore the relationships among these physical systems, with emphasis on weather and climate, water, ecosystems, geologic processes and landform development, and human interactions with the physical environment. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**GEOG 1302 Human Geography**

This course introduces students to fundamental concepts, skills, and practices of human geography. Place, space, and scale serve as a framework for understanding patterns of human experience. Topics for discussion may include globalization, population and migration, culture, diffusion, political and economic systems, language, religion, gender, and ethnicity. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**GEOG 1303 World Regional Geography**

This course is an introduction to the world's major regions seen through their defining physical, social, cultural, political, and economic features. These regions are examined in terms of their physical and human characteristics and their interactions. The course emphasizes relations among regions on issues such as trade, economic development, conflict, and the role of regions in the globalization process. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**GEOG 1305 Environmental Science - Natural Disasters**

A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

Note: Students may take either ENVR 1401 or GEOG 1305 but not both.

**GEOG 1401 Earth Sciences for Non Science Majors I**

Lecture: Survey of geology, meteorology, oceanography, and astronomy. Lab: Activities will cover methods used to collect and analyze data in geology, meteorology, oceanography, and astronomy. Lab required. Prerequisites: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

**GEOG 1402 Earth Sciences for Non Science Majors II**

Lecture: Extension of the study of geology, astronomy, meteorology and oceanography, focusing on natural resources, hazards and climate variability. Lab: Activities will focus on methods used to collect and analyze data related to natural resources, hazards and climate variability. Lab required. Prerequisite: GEOG 1401 or GEOG 1403. 4 credit hours. (A)

**GEOG 1403 Physical Geology**

Lecture: Introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations. Lab: Laboratory activities will cover methods used to collect and analyze earth science data. Lab required. Prerequisites: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

**GEOG 1404 Historical Geology**

Lecture: A comprehensive survey of the history of life and major events in the physical development of Earth as interpreted from rocks and fossils. Lab: Laboratory activities will introduce methods used by scientists to interpret the history of life and major events in the physical development of Earth from rocks and fossils. Lab required. Prerequisite: GEOG 1403. 4 credit hours. (A)

**GEOG 1445 Oceanography**

A study of the various aspects of the ocean, including origins of the ocean, earth's ocean, plate tectonics, ocean sediments, the chemistry of seawater, oceans and climate, currents, waves, tides, coastal features, oceanic ecosystems, protection of coastal areas, and resources of the oceans. Lab required. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

**GEOG 1447 Introduction to Meteorology**

An examination of the Earth's atmosphere, global climate, and associated environmental factors. Includes

lab exercises in weather tracking on Weather-Net computer system. Lab required. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

### **GEOL 2389 Academic Co-op Geology**

Integrates on-campus study with practical hands-on work experience in geology. In conjunction with class seminars, the student will set specific goals and objectives in the study of geology. Contact the Cooperative Work Experience Office. 3 credit hours. (A)

### **GERM 1411 Beginning German I**

Introduction to the basic skills of speaking, reading, writing, and listening; designed for students with little or no previous language training. Includes attention to selected aspects of German civilization. Instruction enhanced by the use of tapes, slides, and video cassettes. Lab required. 4 credit hours. (A)

### **GERM 1412 Beginning German II**

Continuation of GERM 1411 with an emphasis on the reading of elementary texts. Lab required. Prerequisite: GERM 1411 or consent of Associate Dean. 4 credit hours. (A)

### **GERM 2311 Intermediate German I**

Continued development of the four basic language skills with increased attention to reading and writing. Instruction enhanced by tapes, slides, and other audio-visual aids. Prerequisite: GERM 1412 or consent of Associate Dean. 3 credit hours. (A)

### **GERM 2312 Intermediate German II**

Continuation of GERM 2311. Prerequisite: GERM 2311, or consent of Associate Dean. 3 credit hours. (A)

### **GERS 1160 Clinical - Gerontology**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 1 credit hour. (W)

### **GERS 1301 Introduction to Gerontology**

Overview of the social, psychological, and biological changes that accompany aging. Focuses on the implications of these changes for the individual, as well as for the larger society. Lab required. 3 credit hours. (W)

### **GERS 1304 Activity Directing I**

The role of the director in providing activity services. Includes study of history, regulations, communications, advocacy, ethics, service delivery, and volunteer management. Lab required. 3 credit hours. (W)

### **GERS 1307 Activity Directing II**

The role of the director in providing activity services. Includes assessment, care planning, documentation process, and evaluation of client needs. Also addresses program design and resources/funding. Lab required. Prerequisite: GERS 1304. 3 credit hours. (W)

### **GERS 2160 Clinical - Gerontology**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 1 credit hour. (W)

### **GERS 2161 Clinical - Gerontology**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 1 credit hour. (W)

### **GERS 2332 Advanced Activity Director**

An advanced course for activity professionals focusing on management skills for activity programs for older adults. Includes a system for developing activity programs, administrative practices, and communication techniques for the activity professional. Lab required. 2 credit hours. (W)

### **GERS 2333 Legal and Ethical Issues**

Exploration of the legal and ethical issues that families must consider as family members age. Emphasis on advocacy in providing legal and financial well-being as well as knowledge regarding the access of social and medical programs for the older adult. 3 credit hours. (W)

### **GISC 1301 Cartography and Geography in Geographical Information Systems (GIS) and Global Positioning Systems**

Introduction to the principles of cartography and geography. Emphasis on global reference systems and the use of satellites for measurements and navigation. Lab required. Prerequisite/Concurrent enrollment: GISC 1411 (or 1311). 3 credit hours. (W)

### **GISC 1411 Introduction to Geographic Information Systems (GIS)**

Introduction to basic concepts of vector GIS using several industry specific software programs. It also includes nomenclature of cartography and geography. Additionally, students will learn to display map data, change symbology, classify features and rasters, use dynamic labeling, join and relate tables, define projections, dissolve features, clip layers, create a geodatabase, and build a GIS model. Lab required. 4 credit hours. (W)

### **GISC 2172 Geospatial Information Systems Portfolio Development**

The goal of a professional GIS portfolio is to showcase your skills as a GIS professional. In this course, you will develop a professional GIS portfolio of your best work as completed in your other GIS courses. Lab required. 1 credit hour. (W)

### **GISC 2231 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. Prerequisites: GISC 2402 and GISC 2420. 2 credit hours. (W)

### **GISC 2281 Cooperative Education-Cartography/GIS**

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. Prerequisite: GISC 2420. 2 credit hours. (W)

### **GISC 2335 Programming for Geographic Information Systems (GIS)**

Focuses on the use of programming languages to customize and expand the capability of GIS applications. Instruction will include object-oriented and component programming. Students will also design their own Graphical User Interface (GUI). Lab required. Prerequisite: GISC 1411 (or 1311). 3 credit hours. (W)

### **GISC 2402 Geographic Information Systems (GIS) Design with Raster Analysis**

Raster/remote sensing principles, technologies, and applications. Emphasizes processing raster imagery into useful information to be used in a GIS. Includes georeferencing and image classification. Student final project will be demonstrating raster and remote sensing techniques. Lab required. Prerequisite/Concurrent Enrollment: GISC 1411. 4 credit hours. (W)

### **GISC 2420 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. Prerequisite: GISC 1411 (or 1311). 4 credit hours. (W)

### **GOVT 2107 Federal and Texas Constitutions**

A study of the United States and state constitutions with special emphasis on Texas. Prerequisites: By permission only, and meet TSI college-readiness standard for Reading and Writing; or equivalent. Enrollment limited to students who have already completed a minimum of six (6) credit hours of GOVT courses but have not satisfied the statutory requirement for study of the federal and state constitutions. Ensures compliance with TEC 51.301. 1 credit hour. (A)

### **GOVT 2304 Introduction to Political Science**

Introductory survey of the discipline of political science focusing on the scope and methods of the field, and the substantive topics in the discipline including the theoretical foundations of politics, political interaction, political institutions and how political systems function. Prerequisites: Consent of Associate Dean, and meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **GOVT 2305 Federal Government (Federal constitution and topics)**

Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **GOVT 2306 Texas Government (Texas constitution and topics)**

Origin and development of the Texas Constitution, structure and powers of the state and local government, federalism and inter-governmental relations, political participation, the election process, public policy and the political culture of Texas. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **GOVT 2311 Mexican-American Politics**

This course explores the impact of Mexican-Americans on U.S. politics and political institutions and public policy. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **GOVT 2389 Academic Co-op Government**

Integrates on-campus study with practical hands-on work



experience in government. In conjunction with class seminars, the student will set specific goals and objectives in the study of government. Contact the Cooperative Work Experience Office. Prerequisites: Consent of Associate Dean, and meet TSI college-readiness standard for Writing; or equivalent. 3 credit hours. (A)

### **GRPH 1359 Vector Graphics for Production**

A study and use of vector graphics for production. 3 credit hours. (W)

### **HAMG 1313 Front Office Management**

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. Prerequisite / Concurrent Enrollment: HAMG 1321. 3 credit hours. (W)

### **HAMG 1317 Recreational Services**

The study of the recreation and entertainment industry. Emphasis sporting and entertainment venues, tourism attractions, and other public and private sector special events. 3 credit hours. (W)

### **HAMG 1321 Introduction to Hospitality Industry**

An exploration of the elements and career opportunities within the multiple segments of the hospitality industry. 3 credit hours. (W)

### **HAMG 1324 Hospitality Human Resources Management**

Principles and procedures of human resource management in the hospitality industry. Prerequisite / Concurrent Enrollment: HAMG 1321. 3 credit hours. (W)

### **HAMG 1340 Hospitality Legal Issues**

A course in legal and regulatory requirements that impact the hospitality industry. Topics include Occupational Safety and Health Administration (OSHA), labor regulations, tax laws, tip reporting, franchise regulations, and product liability laws. 3 credit hours. (W)

### **HAMG 1366 Practicum (or Field Experience) - Hospitality Administration/Management, General**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite / Concurrent Enrollment: HAMG 2301. 3 credit hours. (W)

### **HAMG 2301 Principles of Food and Beverage Operations**

An overview of food and beverage management in various hospitality environments. Emphasizes cost controls from procurement to marketing and sales. Prerequisite / Concurrent Enrollment: HAMG 1321. 3

credit hours. (W)

Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.

### **HAMG 2305 Hospitality Management and Leadership**

An overview of management and leadership in the hospitality industry with an emphasis on management philosophy, policy formation, communications, motivation, and team building. Prerequisites: HAMG 1324, HAMG 1340, HAMG 2301, HAMG 2307 and TRVM 2301; or consent of Associate Dean. 3 credit hours. (W)

### **HAMG 2307 Hospitality Marketing and Sales**

Identification of the core principles of marketing and sales and their impact on the hospitality industry. Prerequisite / Concurrent Enrollment: HAMG 1321. 3 credit hours. (W)

### **HAMG 2332 Hospitality Financial Management**

Methods and application of financial management within the hospitality industry. Primary emphasis on sales accountability, internal controls, and report analysis. Prerequisite / Concurrent Enrollment: HAMG 1321. 3 credit hours. (W)

### **HAMG 2337 Hospitality Facilities Management**

Identification of hospitality building systems and facilities; to include sustainability and risk management. Prerequisite / Concurrent Enrollment: HAMG 1321. 3 credit hours. (W)

### **HAMG 2380 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. Prerequisites: CHEF 1305, HAMG 1313, HAMG 1324, HAMG 1340, HAMG 2337, RSTO 1325 and TRVM 2301; or consent of Associate Dean. 3 credit hours. (W)

### **HART 1256 EPA Recovery Certification Preparation**

Certification training for HVAC refrigerant recovery, recycle, and reclaim. Instruction will provide a review of EPA guidelines for refrigerant recovery and recycling during the installation, service, and repair of all HVAC and refrigeration systems. Lab required. 2 credit hours. (W)

**HART 1301 Basic Electricity for HVAC**

Principles of electricity as required by HVAC, including proper use of test equipment, electrical circuits, and component theory and operation. Lab required. 3 credit hours. (W)

**HART 1303 Air Conditioning Control Principles**

A basic study of HVAC and refrigeration controls; troubleshooting of control components; emphasis on use of wiring diagrams to analyze high and low voltage circuits; a review of Ohm's law as applied to air conditioning controls and circuits. Lab required. Prerequisite: ELPT 1371. 3 credit hours. (W)

**HART 1307 Refrigeration Principles**

An introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, refrigerant handling, refrigeration components, and safety. Lab required. 3 credit hours. (W)

**HART 1371 HVAC Fundamentals**

Introduction to the principles and equipment that makes up an HVAC system. Basic installation, maintenance, and troubleshooting will be covered. Note: This course is designed for non-HVAC majors. Lab required. 3 credit hours. (W)

**HART 1375 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: CETT 1303 and MATH 1314 equivalent or higher level, or consent of Associate Dean. 3 credit hours. (W)

**HART 1403 Air Conditioning Control Principles**

A basic study of HVAC and refrigeration controls; troubleshooting of control components; emphasis on use of wiring diagrams to analyze high and low voltage circuits; a review of Ohm's law as applied to air conditioning controls and circuits. Lab required. Prerequisite/Concurrent enrollment: HART 1301. 4 credit hours. (W)

**HART 1441 Residential Air Conditioning**

A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems. Lab required. Prerequisite/Concurrent enrollment: HART 1307. 4 credit hours. (W)

**HART 1445 Gas and Electric Heating**

Study of the procedures and principles used in servicing heating systems including gas fired furnaces and electric heating systems. Lab required. Prerequisite/Concurrent enrollment: HART 1301. 4 credit hours. (W)

**HART 2268 Practicum (or Field Experience) - Heating, Air Conditioning and Refrigeration Technology/Technician**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Additionally, this capstone course is to be taken in the final semester of the HVAC degree. Prerequisite/Concurrent enrollment: HART 2345 or consent of Discipline Lead. 2 credit hours. (W)

**HART 2334 Advanced A/C Controls**

Theory and application of electrical control devices, electromechanical controls, and/or pneumatic controls. Lab required. Prerequisites: HART 2431 and HART 2438. 3 credit hours. (W)

**HART 2341 Commercial Air Conditioning**

A study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less. Additionally, course of study will include: Commercial split systems, rooftop units, fan features and analysis and more. Lab required. Prerequisites: HART 2431 and HART 2438. 3 credit hours. (W)

**HART 2342 Commercial Refrigeration**

Theory and practical application in the maintenance of commercial refrigeration; medium, and low temperature applications and ice machines. Lab required. Prerequisite/Concurrent Enrollment: HART 1307. 3 credit hours. (W)

**HART 2343 Industrial Air Conditioning**

A study of components, accessories, applications, and installation of air conditioning systems above 25 tons capacity. Lab required. Prerequisites: HART 2431 and HART 2438. 3 credit hours. (W)

**HART 2345 Residential Air Conditioning Systems Design**

Study of the properties of air and results of cooling, heating, humidifying or dehumidifying; heat gain and heat loss calculations including equipment selection and balancing the air system. Lab required. Prerequisite/Concurrent Enrollment: HART 1307. 3 credit hours. (W)

**HART 2349 Heat Pumps**

A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics

related to heat pump systems. Lab required. Prerequisite: HART 1403. 3 credit hours. (W)

### **HART 2358 Testing, Adjusting, and Balancing HVAC Systems**

A study in the process of checking and adjusting all the building environmental systems to produce the design objectives. Emphasis on efficiency and energy savings. Lab required. Prerequisites: HART 2341 and HART 2345. 3 credit hours. (W)

### **HART 2372 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, and 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. Prerequisite: MATH 1314 or consent of Associate Dean. 3 credit hours. (W)

### **HART 2431 Advanced Electricity for HVAC**

Advanced electrical instruction and skill building in installation and servicing of air conditioning and refrigeration equipment including detailed instruction in motors and power distribution motors, motor controls, and application of solid state devices. Lab required. Prerequisites: HART 1301 and HART 1403. 4 credit hours. (W)

### **HART 2436 Air Conditioning Troubleshooting**

An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests. Lab required. Prerequisites: HART 1301, HART 1307, HART 1403, and HART 1441. 4 credit hours. (W)

### **HART 2438 Air Conditioning Installation and Startup**

A study of air conditioning system installation, refrigerant piping, condensate disposal, and air cleaning equipment with emphasis on startup and performance testing. Lab required. Prerequisite/Concurrent enrollment: HART 1307. 4 credit hours. (W)

### **HART 2442 Commercial Refrigeration**

Theory and practical application in the maintenance of commercial refrigeration; medium, and low temperature

applications and ice machines. Lab required.

Prerequisite/Concurrent enrollment: HART 1307. 4 credit hours. (W)

### **HART 2449 Heat Pumps**

A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems. Lab required. Prerequisite: HART 1403. 4 credit hours. (W)

### **HIST 1301 United States History I**

A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **HIST 1302 United States History II**

A survey of the social, political, economic, cultural, and intellectual history of the United States from the Civil War/Reconstruction era to the present. United States History II examines industrialization, immigration, world wars, the Great Depression, Cold War and post-Cold War eras. Themes that may be addressed in United States History II include: American culture, religion, civil and human rights, technological change, economic change, immigration and migration, urbanization and suburbanization, the expansion of the federal government, and the study of U.S. foreign policy. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **HIST 2301 Texas History**

A survey of the political, social, economic, cultural, and intellectual history of Texas from pre-Columbian era to the present. Themes that may be addressed in Texas History include: Spanish colonization and Spanish Texas; Mexican Texas; the Republic of Texas; statehood and secession; oil, industrialization, and urbanization; civil rights; and modern Texas. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **HIST 2311 Western Civilization I**

A survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from human origins to the 17th

century. Themes that should be addressed in Western Civilization I include cultural legacies of Mesopotamia, Egypt, Greece, Rome, Byzantium, Islamic civilizations, and Europe through the Middle Ages, Renaissance, and Reformations. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **HIST 2312 Western Civilization II**

A survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from the 17th century to the modern era. Themes that should be addressed in Western Civilization II include absolutism and constitutionalism, growth of nation states, the Enlightenment, revolutions, classical liberalism, industrialization, imperialism, global conflict, the Cold War, and globalism. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **HIST 2321 World Civilizations I**

A survey of the social, political, economic, cultural, religious, and intellectual history of the world from the emergence of human cultures through the 15th century. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include the emergence of early societies, the rise of civilizations, the development of political and legal systems, religion and philosophy, economic systems and trans-regional networks of exchange. The course emphasizes the development, interaction and impact of global exchange. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **HIST 2322 World Civilizations II**

A survey of the social, political, economic, cultural, religious, and intellectual history of the world from the 15th century to the present. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include maritime exploration and transoceanic empires, nation/state formation and industrialization, imperialism, global conflicts and resolutions, and global economic integration. The course emphasizes the development, interaction and impact of global exchange. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **HIST 2327 Mexican-American History I**

This course is a survey of the political, economic, social and cultural history of Mexicans in North America from

the pre-Colombian Era through 1850, with emphasis on the Mexican-American War with the United States.

Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **HIST 2328 Mexican-American History II**

This course is a survey of the political, economic, social and cultural history of Mexicans in North America from 1850 to present, with emphasis on the Mexican-American cultural identity and the Civil Rights Movement in the United States. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **HIST 2381 African American History**

A survey of the social, political, economic, cultural, and intellectual history of people of African descent in the formation and development of the United States to the Civil War/Reconstruction period. African American History I includes the study of African origins and legacy, transAtlantic slave trade, and the experiences of African Americans during Colonial, Revolutionary, Early National, Antebellum, and the Civil War/Reconstruction Eras. This course will enable students to understand African American history as an integral part of U.S. history. 3 credit hours. (A)

### **HIST 2389 Academic Co-op History**

Integrates on-campus study with practical hands-on work experience in history. In conjunction with class seminars, the student will set specific goals and objectives in the study of history. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Associate Dean. 3 credit hours. (A)

### **HITT 1301 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: HITT 1305. 3 credit hours. (W)

### **HITT 1303 Medical Terminology II**

A continuation of the study of medical terms through work origin and structure, abbreviations and symbols, surgical and diagnostic procedures, and medical specialties. Lab required. Prerequisite: HITT 1305. 3 credit hours. (W)

### **HITT 1305 Medical Terminology I**

Study of medical terms through word origin and structure. Introduction to abbreviations and symbols,

surgical and diagnostic procedures, and medical specialties. 3 credit hours. (W)

### **HITT 1311 Health Information Systems**

Introduction to health IT standards, health-related data structures, software applications and enterprise architecture in health care and public health. Lab required. 3 credit hours. (W)

### **HITT 1345 Health Care Delivery Systems**

Examination of delivery systems including organization, financing, accreditation, licensure, and regulatory agencies. This course covers alternative health care delivery systems. Lab required. 3 credit hours. (W)

### **HITT 1353 Legal and Ethical Aspects of Health Information**

Concepts of privacy, security, confidentiality, ethics, health care legislation, and regulations relating to the maintenance and use of health information. Prerequisite: HITT 1305. 3 credit hours. (W)

### **HITT 2272 Portfolio Development**

Preparation and enhancement of portfolio to meet professional standards, development of presentation skills, and improvement of job-seeking techniques. Lab required. Prerequisites: ITSE 2309 and MATH 1342. 2 credit hours. (W)

### **HITT 2328 Introduction to Public Health**

A survey of how health care and public health services are organized and delivered in the U.S. Covers public policy, relevant organizations and their interrelationships, professional roles, legal and regulatory issues, and payment systems. Includes health reform initiatives in the U.S. 3 credit hours. (W)

### **HITT 2339 Health Information Organization and Supervision**

Principles of organization and supervision of human, financial, and physical resources. Also covers health information for electronic records. Lab required. Prerequisites: HITT 1301 and HITT 1305. 3 credit hours. (W)

### **HITT 2346 Advanced Medical Coding**

Advanced concepts of 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 regarding ICD-10. Lab required. Prerequisites: BIOL 2404, HITT 1305, and HITT 2435. 3 credit hours. (W)

### **HITT 2361 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: Consent of Program Director. 3 credit hours. (W)

### **HITT 2430 Pathophysiology and Pharmacology**

*Formerly HITT 2471*

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. A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages. Lab required. 4 credit hours. (W)

### **HITT 2435 Coding and Reimbursement**

#### **Methodologies**

Advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement. The student is recommended to complete BIOL 2404 prior to registering for this course, but not required. Lab required. 4 credit hours. (W)

### **HITT 2443 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. Approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems. Lab required. Prerequisite: HITT 1301, and meet TSI college-readiness standard for Mathematics; or equivalent. 4 credit hours. (W)

### **HPRS 1160 Clinical - Health Services/Allied Health/Health Sciences, General**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 1 credit hour. (W)

### **HPRS 1191 Special Topics in Health Professions and Related Sciences, 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. 1 credit hour. (W)

### **Topics in Health Professions**

An examination of the challenges of care coordination across the healthcare continuum and solutions for quality patient outcomes.

### **HPRS 1204 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)

### **HPRS 1206 Essentials of Medical Terminology**

A study of medical terminology, word origin, structure, and application. Lab required. 2 credit hours. (W)

### **HPRS 1271 Introduction to the Healthcare System**

An overview of roles of various members of the healthcare system and their educational requirements, and issues affecting the delivery of healthcare. Additional concepts explored include the healthcare system, the continuum of care, levels of care, length of stay, healthcare providers, legal and ethical aspects of healthcare, reimbursement, healthcare policy determination and health insurance and managed care. 2 credit hours. (W)

### **HPRS 1272 Microbiology for Health Professions**

An introduction to the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and the role microorganisms have in disease. Emphasis is on medical microbiology and infectious diseases. Lab required. Prerequisites: BIOL 2401 and BIOL 2402; both with a grade of "C" or better. 2 credit hours. (W)

### **HPRS 1303 End of Life Issues**

Discussion of grief, loss, and end of life issues. Prepares caregivers to function in settings where communication skills are utilized to provide psychosocial support to persons and their families. 3 credit hours. (W)

### **HPRS 1310 Introduction to Pharmacology**

A study of drug classifications, actions, therapeutic uses, adverse effects, and routes of administration. Does NOT include dosage calculations. 3 credit hours. (W)

### **HPRS 1370 Central Sterile Processing II**

This course explores two subsections of the IAHCSSM Certification program: A) Inventory Control-prepares the student with organizational skills needed to control, track and distribute inventory through the use of different techniques in inventory control and distribution, as well as the use of bar codes and radio frequency identification

to track inventories. B) Sterile Storage and Distribution-introduces the basic procedures of packaging processes through a comparison of reusable and disposable packaging materials, basic package closure methods, and factors, which affect shelf-life and stock rotation. Lab required. 3 credit hours. (W)

### **HPRS 1470 Central Sterile Processing I**

This course will teach subsections of the IAHCSSM Certification program related to: A) Introduction to Central Service-an introduction to the central service role, surgical supplies, basic and specialty surgical instruments, and packaging and sterilization. B) Infection Control and Occupational Safety-related to the principles and practice of infection control and OSHA guidelines along with common safety and hazards protocols. C) Regulations and Standards-teaches the difference between the regulations and voluntary and regulatory standards, the role and responsibilities of federal agencies that impact Central Services, and the important aspects of the regulations and standards they administer. Lab required. 4 credit hours. (W)

### **HPRS 1471 Central Sterile Processing III**

An exploration of the subsections of the IAHCSSM Certification program: A) Instrument and Instrument Identification-identifying surgical instruments by name and purpose, examination of the process by which surgical instruments are manufactured and prepared for the sterilization process. B) Endoscopic Instruments-proper care, handling and processing of endoscopic instruments. C) Decontamination-describe how reusable equipment, instruments, and supplies are cleaned and decontaminated by means of manual or mechanical cleaning processes and chemical disinfection and the proper use of Personal Protective Equipment (PPE) and Standard Precautions. D) Preparation and Handling-relates to basic principles of various packaging materials and closure methods used for sterilization preparation as they relate to the Association of Advancement of Medical Instrument (AAMI) standards. E) Sterilization-relates sterilization procedures and theory including high and low temperature sterilization, sterilization equipment, types of sterilizers, various cycles, quality assurance concepts, documentation, standards, policies and procedures. Lab required. 4 credit hours. (W)

### **HPRS 1561 Clinical-Health Services/Allied Health/Health Sciences, General**

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. This course is an exploration of teamwork and the application of practical



principles in the role of Central Sterile Processing Tech through "hands on" experience. 5 credit hours. (W)

### **HPRS 2232 Health Care Communications**

Methods of communication with clients, client support groups, healthcare professionals, and external agencies. 2 credit hours. (W)

### **HPRS 2300 Pharmacology for Health Professions**

A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages. Prerequisites: SRGT 1271 and SRGT 1409. Corequisites: SRGT 1441 and SRGT 1461. Major Requirement: AAS -Surgical Technology. 3 credit hours. (W)

### **HPRS 2301 Pathophysiology**

Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injuries. 3 credit hours. (W)

### **HPRS 2321 Medical Law and Ethics for Health Professionals**

Principles, procedures, and regulations governing the legal and ethical relationships among physicians, patients, and health care professionals. Includes current ethical issues related to the various healthcare professions and patient confidentiality. 3 credit hours. (W)

### **HPRS 2374 Trends in Healthcare**

An examination of the changes in healthcare from the aspect of technology, deliver, and other trends. 3 credit hours. (W)

### **HRPO 2301 Human Resources Management**

Behavioral and legal approaches to the management of human resources in organizations. 3 credit hours. (W)

### **HRPO 2303 Employment Practices**

A study of employment issues including techniques for human resource forecasting, selection, and placement including interview techniques, pre-employment testing and other predictors. Topics include recruitment methods, the selection process, Equal Employment Opportunity (EEO), EEO recordkeeping, and Affirmative Action Plans. 3 credit hours. (W)

### **HRPO 2304 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)

### **HRPO 2306 Benefits and Compensation**

An overview of employee compensation systems. Topics include compensation systems, direct and indirect compensation, internal and external determination of compensation, benefits administration, managing and evaluating for effectiveness, legal and regulatory issues, pay equity, job analysis affecting job compensation and competencies. 3 credit hours. (W)

### **HRPO 2307 Organizational Behavior**

The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts, and the integration of interdisciplinary concepts from the behavioral sciences. 3 credit hours. (W)

### **HUMA 1301 Introduction to Humanities I**

This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create. Additionally, this course provides a broad overview of cultural traditions and the variety of aesthetic and intellectual works through which they express their values and aspirations. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **HUMA 1302 Introduction to Humanities II**

This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create. Additionally, this course specifically pursues a concentrated exploration of particular cultural traditions or persistent cultural concepts or practices through critical engagement with selected aesthetic and intellectual works. Prerequisite: Meet TSI college-readiness standard for Reading and Writing, or equivalent. 3 credit hours. (A)

### **IBUS 1341 Global Supply Chain Management**

International purchasing or sourcing. Includes the advantages and the barriers of purchasing internationally, global sourcing, procurement technology, and purchasing processes. Emphasizes issues of contract administration, location, and evaluation of foreign suppliers, total cost approach, exchange fluctuations, customs procedures, and related topics. 3 credit hours. (W)

### **IBUS 1354 International Marketing Management**

Analysis of international marketing strategies using market trends, costs, forecasting, pricing, sourcing, and distribution factors. Development of an international marketing plan. 3 credit hours. (W)

**IBUS 2332 Global Business Simulation**

A simulation of a global environment. Students will engage in business practice and theory. The simulation may include researching foreign business cultures and importing and exporting products. Emphasizes participation in all business decisions related to running a simulated company. 3 credit hours. (W)

**IBUS 2341 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, legal issues, negotiations, and processes of decision making in the international cultural environment. 3 credit hours. (W)

**IFWA 1310 Nutrition and Menu Planning**

Application of principles of nutrition in planning menus for the food service industry. This includes various types of commercial, industrial and institutional food service entities. 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)

**IMED 1316 Web Design I**

Instruction in web design and related graphic design issues including mark-up languages, web sites and browsers. Lab required. Prerequisite: ARTC 1302 and ARTC 1325, or consent of Instructor. 3 credit hours. (W)

**IMED 1341 Interface Design**

Skill development in the interface design process including selecting interfaces that are relative to a project's content and delivery system. Emphasis on aesthetic issues such as iconography, screen composition, colors, and typography. Lab required. Prerequisite: ITSE 1311 or consent of Instructor. 3 credit hours. (W)

**IMED 1366 Practicum (or Field Experience) - Web Page, Digital/Multimedia and Information Resources Design**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: ITSE 1359. 3 credit hours. (W)

**IMED 2309 Internet Commerce**

An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Lab required. Prerequisite: ITSE 1311 or consent of Instructor or Associate Dean. 3 credit hours. (W)

**IMED 2315 Web Design II**

A study of mark-up language advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing web sites according to accessibility standards, cultural appearance, and legal issues. Lab required. Prerequisite: IMED 1316. 3 credit hours. (W)

**INDS 1301 Basic Elements of Design**

A study of basic design concepts with projects in shape, line, value, texture, pattern, spatial illusion, and form. Lab required. 3 credit hours. (W)

**INDS 1315 Materials, Methods and Estimating**

A study of materials, methods of construction and installation, and estimating for interior design applications. Lab required. Prerequisites: INDS 1301 and INDS 2313. 3 credit hours. (W)

**INDS 1341 Color Theory and Applications**

A study of color theory and its applications to interior design. Actual interior design will be given that will involve applying various color systems, with emphasis on Munsell. The student will learn mixing techniques to gain desired hue; value and chroma (intensities) for solving design color schemes. Color psychology and phenomena will be investigated. The students will be introduced to elements and principles of design and will learn to achieve balance, rhythm, emphases, harmony, and variety through the use of color. Additive and subtractive color mixing, and relationship of light will be examined. Lab required. 3 credit hours. (W)

**INDS 1345 Commercial Design I**

A study of design principles applied to furniture layout and space planning for commercial interiors. Lab required. Prerequisites: INDS 1371 and INDS 2313. 3 credit hours. (W)

**INDS 1349 Fundamentals of Space Planning**

The study of residential and light commercial spaces, including programming, codes, standards, space planning, drawings and presentations. Lab required. Prerequisites: DFTG 1309 and INDS 1301. 3 credit hours. (W)

**INDS 1351 History of Interiors I**

An historical survey of design in architecture, interiors, furnishings, and decorative elements from the ancient

cultures through the Italian Renaissance time period. Lab required. 3 credit hours. (W)

### **INDS 1352 History of Interiors II**

A multi-cultural historical survey of design in architecture, interiors, furnishings, and decorative elements from the post-Renaissance period to present time. Lab required. Prerequisite: INDS 1351. 3 credit hours. (W)

### **INDS 1371 Introduction to Green Design**

A general study of Green Design and sustainable environment. Explore the basic principles of Green/Sustainable Design including passive solar, alternative energy, green water technology, recycling, green building certification outline, and interior air quality in built environment. Lab required. 3 credit hours. (W)

### **INDS 1372 Computer-Aided Drafting for Interior Designers**

An introduction to computer-aided drafting. Emphasis is placed on setup; general knowledge of CAD software; reading basic blueprint; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; and plot/print to scale; interior furniture layouts. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

### **INDS 1373 Green Interiors**

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. Prerequisites: INDS 1371 and INDS 2313. 3 credit hours. (W)

### **INDS 2280 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. 2 credit hours. (W)

### **INDS 2313 Residential Design I**

The study of residential spaces, including the identification of client needs, programming, standards, space planning, drawings, and presentations. Lab required. Prerequisites: INDS 1301, INDS 1341, and INDS 1372. 3 credit hours. (W)

### **INDS 2315 Lighting for Interior Designer**

Fundamentals of lighting design, including lamps, luminaires, lighting techniques, and applications for residential and commercial projects. Lab required. Prerequisite: INDS 1349. 3 credit hours. (W)

### **INDS 2330 Interior Design Building Systems**

An overview of building materials, mechanical systems, and construction techniques as applied to interior design. Discussion of codes, project sequencing and the interpretation of detailed working drawings. Lab required. Prerequisite: INDS 1345 or consent of Associate Dean. 3 credit hours. (W)

### **INDS 2374 Sustainable Living**

The course provides an introduction to sustainable thinking toward Green Built Environment. Emphasis is placed on: analyzing the Indoor Environmental 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. Prerequisite: INDS 2313. 3 credit hours. (W)

### **INDS 2380 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)

### **INEW 2330 Comprehensive Software Project: Planning and Design**

A comprehensive application of skills learned in previous courses in a simulated workplace. Covers the development, testing, and documenting of a complete software and/or hardware solution. This course may be used as a capstone course for a certificate or degree. Prerequisite: Consent of Instructor. 3 credit hours. (W)

### **INEW 2334 Advanced Web Programming**

Web programming using industry-standard languages and data stores. Lab required. Prerequisite: ITSE 2302 or consent of Department. 3 credit hours. (W)

### **INEW 2338 Advanced Java Programming**

A continuation of Java programming techniques such as servlets, and advanced graphical functions. Topics cover the Java 2 Platform, Enterprise Edition (J2EE) which defines the standard for developing component-based multi-tier enterprise applications. The focus of this class will be on development of Java Servlets and Java Server

Pages (JSPs). Prerequisite: COSC 1437 or ITSE 2317 or consent of Associate Dean. 3 credit hours. (W)

### **INRW 2340 Object-Oriented Design**

A study of large system analysis and design concepts from the object-oriented perspective. Includes determining required objects and their interfaces. Also covers relationships between objects. Lab required.

Prerequisite: COSC 1437 or consent of Associate Dean. 3 credit hours. (W)

### **INRW 0300 Introduction to Integrated Reading and Writing**

Integration of critical reading and academic writing skills. Successful completion of INRW 0315 fulfills TSI requirements for reading and/or writing. Additionally, this is a combined lecture/lab, performance-based course designed to develop students' reading and academic writing skills. Emphasizing grammar, sentence structure, and paragraph development, the course introduces the student to the writing process and the essay as well as fundamental components of college reading. Lab required. Prerequisite: TSI placement in Adult Basic Education Levels 3-6 for Developmental Reading/Writing. Consult the Testing Center Director if you have questions about an assessment. 3 credit hours. (D)

### **INRW 0315 Integrated Reading/Writing II**

Integration of critical reading and academic writing skills. Successful completion of this course fulfills TSI requirements for reading and/or writing. Additionally, this is a performance-based course designed to develop students' critical reading and academic writing skills. The focus of the course will be on applying critical reading skills for organizing, analyzing, and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. The course integrates preparation in basic academic reading skills with basic skills in writing a variety of academic essays. Prerequisite: INRW 0405 or meet TSI standard for INRW 0315; or equivalent. If you do not meet placement requirements, check with the instructor to request consent. 3 credit hours. (D)

### **INRW 0405 Integrated Reading/Writing I**

Integration of critical reading and academic writing skills. Successful completion of INRW 0315 fulfills TSI requirements for reading and/or writing. Additionally, seeks to improve students' academic reading and writing skills through extensive integrated instruction emphasizing skills and techniques related to vocabulary, grammar, comprehension, paragraph elements, essay structure, and critical analysis that apply to both reading

and writing. Students will demonstrate comprehension of varied texts through written responses, progressing from advanced paragraphs to short essays. The required lab component will target students' individual skills. Lab required. Prerequisite: INRW 0300 or meet TSI standard for INRW 0405; or equivalent. Consult the Testing Center Director if you have questions about an assessment. 4 credit hours. (D)

### **INSR 1301 Commercial Insurance**

Introduction to business loss exposures and the operation of the insurance policies available for these exposures including property, business income, crime, marine, auto, and other government programs. May prepare students to take the licensing exam sponsored by the Texas Department of Insurance. 3 credit hours. (W)

### **INSR 1305 Personal Insurance**

Introduction to personal loss exposures and personal insurance policies for handling these exposures including auto, homeowners, life, health, marine, and various government insurance programs. May prepare students to take the licensing exam sponsored by the Texas Department of Insurance. 3 credit hours. (W)

### **INSR 1345 Commercial Liability Risk Management and Insurance**

Analysis of the major sources of liability loss exposures and examination of the insurance coverage designed to meet those exposures. Commercial liability risk management premises and operations, products and contractual and protective liability, employer liability, and surety bonds. Examination of tort and agency law as they relate to loss exposures involving third party claimants. May prepare students to take the licensing exam sponsored by the Chartered Property/Casualty Underwriters. 3 credit hours. (W)

### **INSR 1351 Essentials of Risk Management**

Risk management decision-making process with emphasis on identification and analysis of loss exposures and development of alternative techniques for the treatment of each exposure. 3 credit hours. (W)

### **INSR 1353 Insurance Operations**

Examination of insurance marketing, underwriting, and reinsurance. Topics include rate making, claims adjusting, loss control activities, and other functions and activities. May prepare students to take the licensing exam sponsored by the Chartered Property/Casualty Underwriters. 3 credit hours. (W)

### **INSR 1355 The Legal Environment of Insurance**

Examine related business laws to insurance situations. May prepare students to take the licensing exam

sponsored by the Chartered Property/Casualty Underwriters. 3 credit hours. (W)

**INSR 1374 Personal Lines Insurance Underwriting**

A study of the underwriting process with an emphasis on the expected financial risk to an insurance organization. 3 credit hours. (W)

**INSR 1375 Insurance Data Analytics**

Exploration of data analytics and how it applies to the insurance industry. 3 credit hours. (W)

**INSR 1391 Special Topics in Insurance**

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)

**Topics in Insurance Management**

Application of knowledge attained from Insurance courses towards a comprehensive project that identifies an area of improvement or opportunity for the Insurance Industry at large. Prerequisites: INSR 1301, INSR 1305, INSR 1345, INSR 1375, and INSR 2301.

**INSR 2311 Workers Compensation and Medical Aspects of Claims**

The history and rationale for the workers compensation system and the rapidly changing regulatory environment. Topics include the importance of adequate medical knowledge in adjusting claims. 3 credit hours. (W)

**INSR 2319 Liability Insurance Claims Adjusting**

In-depth study of liability loss adjusting with heavy emphasis on the legal and medical knowledge needed and special skills required to negotiate successfully in a third party claim environment. May prepare students to take the Associate in Claims (AIC) licensing exam. 3 credit hours. (W)

**INSR 2340 Multiline Insurance Sales and Marketing**

Prospecting and presentation, types of coverage, identifying client needs, terminology, and analyzing homeowners' coverage. Includes information related to sales transitions, analyzing automobile and specialized coverage, tax implications, loss ratios and agent responsibilities. 3 credit hours. (W)

**INTC 1307 Instrumentation Test Equipment**

Theory and application of instrumentation test equipment. Emphasizes accuracy, limitations of instruments, and calibration techniques. Lab required.

Prerequisite: CETT 1409 or consent of Instructor or Discipline Lead. 3 credit hours. (W)

**INTC 1357 AC/DC Motor Control**

A study of electric motors and motor control devices common to a modern industrial environment. A presentation of motor characteristics with emphasis on starting, speed control, and stopping systems. Lab required. Prerequisite: CETT 1409. 3 credit hours. (W)

**INTC 2359 Distributed Control Systems**

Philosophy and application of distributed control systems. Includes hardware, firmware, software, configuration, communications, and networking systems required to implement a distributed control strategy. Lab required. Prerequisite: ELMT 1301. 3 credit hours. (W)

**ITAL 1411 Beginning Italian I**

Introduction to the basic skills of speaking, reading, writing, and listening. Intended for students with little or no previous training in Italian. Lab required. 4 credit hours. (A)

**ITAL 1412 Beginning Italian II**

Continuation of ITAL 1411. Lab required. Prerequisite: ITAL 1411 or consent of Associate Dean. 4 credit hours. (A)

**ITCC 1314 CCNA 1: Introduction to Networks**

This course covers networking architecture, structure, security, and functions; introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum. Lab required. Prerequisites: CPMT 1305 and ITNW 1358. 3 credit hours. (W)

**ITCC 1344 CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)**

Describes the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts; provides an in-depth understanding of how routers and switches operate and are implemented in the LAN environment. Lab required. Prerequisite: ITCC 1314. 3 credit hours. (W)

**ITCC 2320 CCNA 3: Enterprise Networking, Security, and Automation (ENSA)**

Describes the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. Emphasizes network security concepts and introduces network virtualization and automation. Lab required. Prerequisite: ITCC 1344. 3 credit hours. (W)

**ITCC 2341 CCNA Security**

Formerly ITCC 2370 Overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies, products, and solutions; and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls. Additionally, the Cisco CCNA Security curriculum is taken in preparation for the Implementing Cisco IOS Network Security (IINS) Certification Exam (640-453) leading to the Cisco CCNA Security Certification. Through in-class lecture and lab sections, expertise is developed in Protocol Sniffers/Analyzers, TCP/IP and common desktop utilities, Cisco IOS software, Cisco VPN clients, and Packet Tracer (PT). Lab required. Prerequisite: ITCC 1344 or CCENT (ICND1) Certification and consent of Associate Dean. 3 credit hours. (W)

**ITCC 2377 Implementing Enterprise Network Core Technologies**

This course gives you the knowledge needed to implement core enterprise network technologies including dual stack (IPv4 and IPv6) architecture, virtualization, infrastructure, network assurance, security and automation. Lab required. Prerequisite: ITCC 2320, CCNA Certification, or consent of Associate Dean. 3 credit hours. (W)

**ITCC 2379 Implementing Enterprise Advanced Routing and Services**

This course gives you the knowledge you need to install, configure, operate, and troubleshoot an enterprise network. This course covers advanced routing and infrastructure technologies, expanding on the topics covered in the Implementing Enterprise Network Core Technologies course. Lab required. Prerequisite / Concurrent Enrollment: ITCC 2377 or consent of Associate Dean. 3 credit hours. (W)

**ITMT 1371 Configuring and Supporting Microsoft Windows 10 (MD-100)**

Addresses the implementation and desktop support needs of customers that are planning to deploy and support Microsoft Windows 10 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 10. Lab required. Prerequisite: ITNW 1358 or consent of Associate Dean. 3 credit hours. (W)

**ITMT 1372 Installation, Storage, and Computing with Windows Server 2016**

A course in Windows Server 2016 installation. Lab required. Prerequisite: ITNW 1358 or ITCC 1314. 3 credit hours. (W)

**ITMT 1373 Networking with Windows Server 2016**

A course in Windows Server 2016 networking including implementing Domain Name System (DNS), implementing DHCP, implementing IP Address Management (IPAM), implementing network connectivity and remote access solutions, implementing core and distributed network solutions, implementing an advanced network infrastructure, preparation options (MS 70-741). Lab required. Prerequisite: ITMT 1372. 3 credit hours. (W)

**ITMT 1374 Identity with Windows Server 2016**

Install and configure Active Directory Domain Services (AD DS), manage and maintain AD DS, create and manage Group Policy, implement Active Directory Certificate Services (AD CS, implement identity federation and access solutions (MS 70-742). Lab required. Prerequisite: ITMT 1372. 3 credit hours. (W)

**ITNW 1309 Fundamentals of Cloud Computing**

*Formerly ITNW 1370*

Introduction to Cloud computing from a business and technical perspective, including Cloud concepts, services, architecture, system integration, connectivity, data center migration, administration, security, compliance and technical support. Coverage includes preparation for industry certifications. Topics may adapt to changes in industry practices. Lab required. Prerequisite: ITCC 1314 or ITNW 1358. 3 credit hours. (W)

**ITNW 1351 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. 3 credit hours. (W)

**ITNW 1358 Network+**

Assists individuals in preparing for Computing Technology Industry Association (CompTIA) Network+ certification exam and career as a network professional. Additionally, 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)

**ITNW 1364 Practicum (or Field Experience) - Computer Systems Networking and Telecommunications**



Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: ITCC 1344. 3 credit hours. (W)

### **ITNW 1371 Aruba Switching Fundamentals for Mobility**

This course introduces the student to the following: Switching principles, Virtual LANs (VLANs), Link Aggregation (LACP), Access Control List (ACLs), Layer 3 Routing, Zero Touch Provisioning (ZTP), Virtual Switching Framework (VSF), Spanning Tree (RSTP/MSTP), Wireless & Wired Roll-Based Security, Redundancy (Clustering) and Air Wave for monitoring Instant Access Points (IAP). Lab required. Prerequisite / Concurrent Enrollment: ITNW 1358. 3 credit hours. (W)

### **ITNW 1372 Implementing Aruba Wireless**

This course introduces the student to the following: RF concepts, 802.11 Standards, Radio Frequency Bands, Channels, Antennas and Cell coverage (BSS). It describes Signal to Noise Ratio (SNR), Transmitter Power (TX), Receive Signal Strength (RSSI) and Interference (I). It will describe wireless client roaming, Quality of Service (QoS), AP Groups, Data Tunneling, Wireless Controllers, Wireless Security with WPA/WPA2 and WPA3. Also discussed will be Rogue Detection, WIP, Controller Firewalls including Roles, Policies and Rules. Last, provisioning a Guest Network, establishing Dynamic RF management of APs and client steering using Client Match will be explored. Lab required. Prerequisite / Concurrent Enrollment: ITNW 1358. 3 credit hours. (W)

### **ITNW 1378 Wireless Network Administration**

A continuation of the Fundamentals of Wireless LANs class covering radio frequency technologies, antenna concepts, Wireless LAN Hardware and Software, wireless standards, and basic site surveys. Lab required. Prerequisite: ITNW 1351. 3 credit hours. (W)

### **ITNW 2371 Wireless Network Security**

This course covers security concepts and implementations on wireless LAN systems. Course includes wireless LAN discovery, intrusion and attack techniques, protocol analysis, and intrusion prevention. Lab required. Prerequisite: ITNW 1378. 3 credit hours. (W)

### **ITNW 2372 Wireless Network Design**

An in-depth wireless LAN design course covering requirement analysis, site surveys, WLAN design and deployment, and design validation. Lab required. Prerequisite: ITNW 2371. 3 credit hours (W)

### **ITNW 2373 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. Prerequisite: ITNW 1358. 3 credit hours. (W)

### **ITNW 2374 Emerging Wireless Technology**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. Prerequisite: ITNW 1378. 3 credit hours. (W)

### **ITNW 2375 VMware vSphere: Installation, Configuration, and Management**

A study of Virtualization in computer network technology. The course covers the installation, configuration, and management of VMware vSphere, which consists of VMware vSphere ESXi and VMware vCenter Server. Lab required. Prerequisites: ITCC 1344 and ITMT 1373, or consent of Associate Dean. 3 credit hours. (W)

### **ITNW 2376 Advanced Topics in Computer Systems Networking and Collaborative Technologies**

This course assimilates leading edge skills, knowledge, and advances in technologies relevant to the local industry needs. Lab required. 3 credit hours. (W)

### **ITNW 2377 Aruba Scale-able WLAN Design and Implementation**

This course introduces the student to the following: Integrate Mobility Master Controller with Mobility Controllers. Establish access point clustering to insure hitless failovers. Students will configure VoIP and securely combine Voice, Video and Data traffic across APs using enterprise roaming. Setup isolated Guest Access using Multizone. Design and provision remote branch locations using RAP or VIA technologies. Monitor Network Health and perform client troubleshooting using Air Wave and generate reports. Lab required. Prerequisite: ITNW 1372. 3 credit hours. (W)

### **ITNW 2378 Fundamentals of IoT**

This course covers standards, devices, protocols, and security concepts necessary to design, deploy, and troubleshoot IoT solutions. Lab required. Prerequisites: ITNW 1309, ITNW 2371, and ITSC 1342. 3 credit hours. (W)

### **ITNW 2379 Implementing Aruba Campus Switching Solutions**

This course introduces the student to the following: Deploy single & Multi-area OSPF systems, implement 802.1x/EAP on switch ports, configure captive portal authentication with a RADIUS server, Establish BGP sessions between the Layer 3 switch and the ISP, Setup Virtual Router Redundancy Protocol (VRRP), Employ DHCP snooping and ARP protection. Utilize GRE, CPsec and IPsec Tunnels at the proper time. Lab required. Prerequisite: ITNW 1371. 3 credit hours. (W)

### **ITNW 2380 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)

### **ITSC 1305 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. Additionally, the operating system will be examined from an end-user perspective. Hands-on lab experience is provided. Lab required. 3 credit hours. (W)

### **ITSC 1309 Integrated Software Applications I-MS Office**

Introduction to business productivity software suites using word processing, spreadsheets, databases, and/or presentation software. Lab required. Prerequisite/Concurrent enrollment: POFT 1329. 3 credit hours. (W)

### **ITSC 1316 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: ITNW 1358 or consent of Associate Dean. 3 credit hours. (W)

### **ITSC 2339 Personal Computer Help Desk Support**

Diagnosis and solution of user hardware and software related problems with on-the-job and/or simulated projects. Lab required. Prerequisites: ITNW 1358 and ITSC 1305, or consent of Instructor. 3 credit hours. (W)

### **ITSC 2380 Cooperative Education-Computer and Information Sciences, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **ITSE 1301 Web Design Tools - Graphics**

Designing and publishing Web documents according to World Wide Web Consortium (W3C) standards. 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)

### **ITSE 1306 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: COSC 1315 and ITSE 1311 or consent of Associate Dean. 3 credit hours. (W)

### **ITSE 1311 Beginning Web Programming**

Skills development in web programming including markup and scripting languages. Additionally, the course focuses on use of HTML and CSS to create web sites and includes an introduction to JavaScript. Lab required. 3 credit hours. (W)

### **ITSE 1330 Introduction to C# Programming**

A study of C# syntax including data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling. Lab required. Prerequisite: COSC 1315 or COSC 1436 or consent of Department. 3 credit hours. (W)

### **ITSE 1332 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)

**ITSE 1333 Mobile Applications Development**

An overview of different mobile platforms and their development environments. Lab required. Prerequisite: ITSE 2302 or consent of Associate Dean. 3 credit hours. (W)

**ITSE 1359 Introduction to Scripting Languages - Python**

Introduction to scripting languages including basic data types, control structures, regular expressions, input/output, and textual analysis. Lab required. 3 credit hours. (W)

**ITSE 1373 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: COSC 1437 or consent of Associate Dean. 3 credit hours. (W)

**ITSE 1380 Cooperative Education -Computer Programming/Programmer, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**ITSE 1393 Special Topics in Computer Systems Analysis**

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)

**Business Intelligence**

An introduction to Business Intelligence analysis and reporting. The topics of study will include creating a data source, dimensional model, dimensions and measures, attribute relationships and user-defined hierarchies, calculated members, aggregations, and analysis reports using Excel. Prerequisites: ITSE 2309 and ITSW 1304 or consent of Associate Dean.

**ITSE 2302 Intermediate Web Programming**

Techniques for web development. Includes server-side

and client-side scripting. Additionally, students design and implement fully interactive web sites using HTML5, CSS, and JavaScript. Lab required. Prerequisite: ITSE 1311 or consent of Associate Dean. 3 credit hours. (W)

**ITSE 2309 Database Programming - SQL**

Database development using database programming techniques emphasizing database structures, modeling, and database access. Lab required. 3 credit hours. (W)

**ITSE 2310 iOS Application Programming**

Course explores developing applications for iOS devices. Will include the current iOS programming language, use of the iOS SDK environment, and current programming issues in the iOS environment. Lab required.

Prerequisite: Consent of Department. 3 credit hours. (W)

**ITSE 2313 Web Authoring**

Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. Lab required. Prerequisite: ITSE 1311 or consent of Instructor. 3 credit hours. (W)

**ITSE 2343 Advanced Mobile Programming**

Programming for mobile devices including file access methods, data structures, modular programming, program testing and documentation. Lab required. Prerequisite: ITSE 1333 or consent of Department. 3 credit hours. (W)

**ITSE 2347 Advanced Database Programming**

Database development using complex database programming techniques emphasizing multiple interrelated files, menu design, security implementation, and multiple access. Additionally, Advanced SQL Query Design, SQL Analytic functions, Database design, and Data Warehousing will be emphasized. Lab required. Prerequisite: ITSE 2309. 3 credit hours. (W)

**ITSE 2353 Advanced C# Programming**

C# programming using advanced features of the .NET Framework. Lab required. Prerequisite: ITSE 1311 and ITSE 1330 or consent of Department. 3 credit hours. (W)

**ITSE 2354 Advanced Oracle PL/SQL**

Advanced use of Oracle SQL. Topics include hierarchical queries, set based queries, correlated subqueries, scripting, and scripting generation. Prerequisite: ITSE 2309. Lab required. 3 credit hours. (W)

**ITSE 2370 Descriptive Analytics**

An introduction to principles and techniques in data analysis for problem solving and decision making used in

business and industry. Lab required. Prerequisites: ITSE 2309, ITSW 1304, and MATH 1342. 3 credit hours. (W)

### **ITSE 2374 Web and Mobile Application**

#### **Development**

A comprehensive application of skills learned in previous courses. Covers the development, testing, documenting, coding and implementation of a website, web or mobile application. This course may be used as a capstone course for a certificate or degree. Lab required.

Prerequisite/Concurrent Enrollment: INEW 2334 or ITSE 2313 or ITSE 2343 or consent of Department. 3 credit hours. (W)

### **ITSE 2380 Cooperative Education-Computer Programming/Programmer, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **ITSW 1304 Introduction to Spreadsheets-Excel**

Instruction in the concepts, procedures, and application of electronic spreadsheets. 3 credit hours. (W)

### **ITSW 1307 Introduction to Database-Access**

Introduction to database theory and the practical applications of a database. Emphasis on database design, custom reports, file management, and application creation. 3 credit hours. (W)

### **ITSW 1310 Introduction to Presentation Graphics Software**

Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development. Lab required. 3 credit hours. (W)

### **ITSW 1380 Cooperative Education-Data Processing and Data Processing Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **ITSW 2370 SAS Programming**

Introduction to the principles and techniques of using the

SAS Programming Application Language. Lab required. Prerequisite: ITSE 2309. 3 credit hours. (W)

### **ITSW 2380 Cooperative Education-Data Processing and Data Processing Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: ITSW 1380 or consent of Associate Dean. 3 credit hours. (W)

### **ITSW 2472 Portfolio Development**

Preparation and enhancement of portfolio to meet professional standards, development of presentation skills, and improvement of job-seeking techniques. Lab required. Prerequisite: ITSE 2309. 4 credit hours. (W)

### **ITSY 1300 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: ITNW 1358. 3 credit hours. (W)

### **ITSY 2300 Operating System Security**

Safeguard computer operating systems by demonstrating server support skills and designing and implementing a security system. Identify security threats and monitor network security implementations. Use best practices to configure operating systems to industry security standards. Lab required. Prerequisite: ITNW 1358. 3 credit hours. (W)

### **ITSY 2301 Firewalls and Network Security**

Identify elements of firewall design, types of security threats and responses to security attacks. Use Best Practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities. Lab required. Prerequisite: ITSY 2300 or consent of Associate Dean. 3 credit hours. (W)

### **ITSY 2341 Security Management Practices**

In-depth coverage of security management practices, including asset evaluation and risk management; cyber law and ethics issues; policies and procedures; business recovery and business continuity planning; network

security design; and developing and maintaining a security plan. Lab required. Prerequisite: ITSY 2300 or consent of Associate Dean. 3 credit hours. (W)

#### **ITSY 2342 Incident Response and Handling**

In-depth coverage of incident response and incident handling, including identifying sources of attacks and security breaches; analyzing security logs; recovering the system to normal; performing postmortem analysis; implementing and modifying security measures.

Prerequisite: ITSY 2300 or consent of Associate Dean. 3 credit hours. (W)

#### **ITSY 2343 Computer System Forensics**

In-depth study of system forensics including methodologies used for analysis of computer security breaches. Collect document and evaluate evidence to perform postmortem analysis of a security breach.

Prerequisite: ITSY 2342 or consent of the Associate Dean. Lab required. 3 credit hours. (W)

#### **ITSY 2572 Certified Information Systems Security Professional (CISSP) Common Body of Knowledge Domain Instruct**

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: ITSY 1300 and ITSY 2300, or equivalent experience and consent of Associate Dean. 5 credit hours. (W)

#### **ITSY 2575 Certified Information Security Manager (CISM)**

An in depth study of the five domains covered on the ISACA\* - CISM professional certification exam. Each domain (Information Security Governance, Information Risk Management, Information Security Program Development, Information Security Program Management, and Incident Management and Response) covers the knowledge and tasks that cybersecurity professionals are expected to know how to perform in the workplace. \*Previously known as Information Systems Audit and Control Association. Prerequisite: ITSY 1300 or ITSY 2300 or equivalent experience and consent of Associate Dean. 5 credit hours. (W)

#### **JAPN 1411 Beginning Japanese I**

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Japanese culture; designed for students with little or no previous language training. Instruction is enhanced by

the use of tapes, slides, and video cassettes. Lab required. 4 credit hours. (A)

#### **JAPN 1412 Beginning Japanese II**

A continuation of JAPN 1411. Lab required.

Prerequisite: JAPN 1411 or consent of Associate Dean. 4 credit hours. (A)

#### **JAPN 2311 Intermediate Japanese I**

Continuing development of the four basic skills of speaking, reading, writing, and listening, emphasizing conversational and reading skills. Designed for students who have completed Beginning Japanese II. Additional Kanji structures are introduced. Also includes attention to selected aspects of Japanese culture. Lab required.

Prerequisite: JAPN 1412 or consent of Associate Dean. 3 credit hours. (A)

#### **JAPN 2312 Intermediate Japanese II**

Continued development of four basic language skills with emphasis on conversation and reading skills. Additional Kanji and grammar structures are introduced. Includes attention to selected aspects of Japanese culture. Lab required. Prerequisite: JAPN 2311 or consent of Associate Dean. 3 credit hours. (A)

#### **KINE 1100 Beginning Weight Training**

Introduction to weight training and body building; learn the basic techniques for strength development and cardiovascular conditioning. Various weight machines, free weights and aerobic machines are used to establish an individual fitness program. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

#### **KINE 1106 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

#### **KINE 1111 Beginning 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1112 Beginning 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1114 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1115 Beginning 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1116 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1117 Beginning Tennis**

Stresses rules, scoring and fundamental techniques for beginners. Participation by skill level for singles and doubles play is made to ensure vigorous activity for cardiovascular fitness. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1120 Beginning Racquetball**

Instruction in rules and basic skills; develops the fundamental techniques of court play for beginners. Participation by skill level assures vigorous activity for cardiovascular fitness. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1123 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1125 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1126 Self-Defense**

Basic understanding and practical application of fundamental self-defense techniques through physical conditioning. Includes balance, focus, breath control, block and counter, avoiding attack, striking, thrusting and kicking. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1127 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1129 Beginning 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1131 Beginning Swimming**

Non-swimmers and beginners are taught basic swimming skills and strokes. Emphasizes personal safety skills and confidence in the water. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.



**KINE 1136 Water Aerobics**

Fitness level is improved through exercises in the water. A non-impact style of exercises that utilizes water resistance for increasing muscular strength, endurance, and cardiovascular fitness. Swimming skills are not necessary. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1137 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 KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1140 Beginning Aerobic Dance**

Aerobic exercise and step training incorporating light weights. Includes interval training, which adds a new variation to aerobic endurance and flexibility. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1142 Varsity Condition I**

Presentation of current scientific and technical information related to a particular activity with emphasis on developing health and skill related fitness, as well as fundamental skills. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1144 Varsity Sports I**

This course offers development of skills and personal potential for student athletes interested in improving their performance or preparing for further competition at the upper collegiate level. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1147 Beginning Aerobic Kickboxing/Karate**

Cardiovascular and body conditioning are acquired through the use of karate and martial arts techniques set to music and integrating punching bags. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1148 Introduction to Team Sports**

Develops the basic skills and strategies through the knowledge of the history, rules, and terminology. Students will participate in game situations. Three of the following activities will be elected for instruction: Basketball, Flag Football, Soccer, Softball, or Volleyball. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 1100-1148 range; however, the same course cannot be taken more than twice.

**KINE 1164 Introduction to Physical Fitness and Wellness**

This course will provide an overview of the lifestyle necessary for fitness and health. Student will participate in physical activities and assess their fitness status. Students will be introduced to proper nutrition, weight management, cardiovascular health, flexibility, and strength training. Additionally, this course introduces basic concepts of fitness, nutrition, health promotion, and disease prevention. Includes the study and practices of activities and principles that promote fitness and wellness. 1 credit hour. (A)

**KINE 1301 Foundations of Kinesiology**

The purpose of this course is to provide students with an introduction to human movement that includes the historical development of physical education, exercise science, and sport. This course offers the student both an introduction to the knowledge base, as well as, information on expanding career opportunities. 3 credit hours (A)

**KINE 1304 Personal / Community Health**

This course provides an introduction to the fundamentals, concepts, strategies, applications, and contemporary trends related to understanding personal and/or community health issues. This course also focuses on empowering various populations with the ability to practice healthy living, promote healthy lifestyles, and enhance individual well-being. 3 credit hours (A)

**KINE 1306 First Aid**

Instruction and practice for emergency care. Designed to enable students to recognize and avoid hazards within their environment, to render intelligent assistance in case of accident or sudden illness, and to develop skills necessary for the immediate and temporary care of the victim. Successful completion of the course may enable

the student to receive a certificate from a nationally recognized agency, the American Heart Association. 3 credit hours. (A)

### **KINE 1308 Sports Officiating**

The purpose of the course is to study officiating requirements for sports and games with an emphasis on mechanics, rule interpretation, and enforcement. 3 credit hours. (A)

### **KINE 1336 Introduction to Sports Management**

The course will introduce basic principles of administration, marketing, management, and operations in relation to the various careers in sports management. An overview of the sports industry will be introduced. 3 credit hours. (A)

### **KINE 1338 Concepts of Physical Fitness**

This course is designed to familiarize students with knowledge, understanding and values of health related fitness and its influence on the quality of life emphasizing the development and implementation of fitness programs. Lab required. 3 credit hours. (A)

### **KINE 2100 Intermediate Weight Training**

Formerly PHED 1102 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 KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2106 Beginning Jogging and Fitness**

Formerly PHED 1104 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 KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2111 Intermediate Basketball**

Designed for the individual who has experienced basketball skills and wants to increase their development and knowledge of basketball. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2112 Intermediate Soccer**

Basic skills and techniques are refined beyond the

beginner level. Analysis and practice of strategies, safety, offensive and defensive patterns of play and competitive activities are covered. Course emphasis is placed on the development and preparation for participation on an intercollegiate team. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2115 Intermediate Archery**

Formerly PHED 1119 Investigates intermediate level techniques for refinement of basic archery shooting skills and participation in competitive target shooting. The class is designed to help students learn more advanced techniques in the sport of archery through hands-on application of using the bow and arrow through lecture, demonstration, and practice of archery skills. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2117 Intermediate Tennis**

Formerly PHED 1118 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 KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2120 Intermediate Racquetball**

Formerly PHED 1121 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 KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2129 Intermediate Hatha Yoga**

Formerly PHED 1130 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 KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2139 High Intensity Interval Training**

A training technique that involves giving all-out anaerobic

effort (80 - 95% of estimated maximal heart rate) through quick, intense bursts of exercise, followed by short, active rest periods (40 - 50% of estimate maximal heart rate). This type of training allows for a higher post-exercise oxygen consumption, thus using more energy (burning more calories from fat) post-exercise. By utilizing equipment such as medicine balls, kettlebells, jump ropes, dumbbells, stability balls, tension bands, etc., maximum cardiac output and a higher VO2 max can be achieved. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2142 Varsity Condition II**

Presentation of current scientific and technical information related to a particular activity with emphasis on developing advanced health and skill related fitness, as well as fundamental skills. Prerequisite: KINE 1142. 1 credit hour. (A) Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2144 Varsity Sports II**

This course offers advanced development of skills and personal potential for student athletes interested in improving their performance or preparing for further competition at the upper collegiate level. Prerequisite: KINE 1144. 1 credit hour. (A)

Note: A student may receive up to 4 credit hours of any combination of KINE course numbers in the 2100-2144 range; however, the same course cannot be taken more than twice.

### **KINE 2356 Care and Prevention of Athletic Injuries**

Prevention and care of athletic injuries with emphasis on qualities of a good athletic trainer, avoiding accidents and injuries, recognizing signs and symptoms of specific sports injuries and conditions, intermediate and long-term care of injuries, and administration procedures in athletic training. 3 credit hours. (A)

### **LGLA 1303 Legal Research**

Presents legal research techniques emphasizing the paralegal's role. 3 credit hours. (W)

### **LGLA 1305 Legal Writing**

Fundamentals of legal writing techniques including case and fact analysis, citation formats, and legal writing styles emphasizing the paralegal's role in legal writing. 3 credit hours. (W)

### **LGLA 1307 Introduction to Law and the Legal Professions**

Overview of the law and the legal professions including legal concepts, systems, and terminology; substantive areas of law and the federal and state judicial systems; ethical obligations and regulations; professional trends and issues with emphasis on the paralegal's role. 3 credit hours. (W)

### **LGLA 1323 Employment Law**

Presents the fundamental concepts of employment law, including employment contracts, at-will employment, governmental regulations, and discrimination issues, emphasizing the paralegal's role in employment law. Prerequisite: LGLA 1307 or consent of Associate Dean. 3 credit hours. (W)

### **LGLA 1343 Bankruptcy**

Fundamental concepts of bankruptcy law and procedure are presented including individual and business liquidation and reorganization with emphasis on the paralegal's role. 3 credit hours. (W)

### **LGLA 1344 Texas Civil Litigation**

Fundamental concepts and procedures of Texas civil litigation including pretrial, trial, and post-trial phases of litigation emphasizing the paralegal's role in the Texas civil litigation process. Prerequisites: LGLA 1303, LGLA 1345, and LGLA 2303, or consent of Associate Dean. 3 credit hours. (W)

### **LGLA 1345 Civil Litigation**

Presents fundamental concepts and procedures of civil litigation including pretrial, trial, and post-trial phases of litigation and emphasizes paralegal's role in civil litigation. 3 credit hours. (W)

### **LGLA 1351 Contracts**

Presents fundamental concepts of contract law including formation, performance, and enforcement of contracts under the common law and the Uniform Commercial Code with emphasis on the paralegal's role in contract law. 3 credit hours. (W)

### **LGLA 1353 Wills, Trusts, and Probate Administration**

Fundamental concepts of the law of wills, trusts, and probate administration emphasizing the paralegal's role. 3 credit hours. (W)

### **LGLA 1355 Family Law**

Fundamental concepts of family law including formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship with emphasis on the paralegal's role in family law. 3 credit hours. (W)

**LGLA 1370 Introduction to Legal Conventions**

Conventions of legal communication, including grammatical conventions, diction, style, legal citation form, proofreading skills, and editing skills, with emphasis on the paralegal's role. 3 credit hours. (W)

**LGLA 1380 Cooperative Education – Legal Assistant/Paralegal**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Associate Dean / Director of the program for further information. 3 credit hours. (W)

**LGLA 2303 Torts and Personal Injury Law**

Fundamental concepts of tort and personal injury law including intentional torts, negligence, and strict liability are presented with emphasis on the paralegal's role in tort and personal injury law. 3 credit hours. (W)

**LGLA 2307 Law Office Management**

Fundamental 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)

**LGLA 2309 Real Property**

Presents fundamental concepts of real property law including the nature of real property, rights and duties of ownership, land use, voluntary and involuntary conveyances, and the recording of and searching for real estate documents emphasizing the paralegal's role in real property law. 3 credit hours. (W)

**LGLA 2311 Business Organizations**

Basic concepts of business organizations including law of agency, sole proprietorships, partnerships, corporations, and other emerging business entities with emphasis on the paralegal's role. Prerequisite: LGLA 1307 or LGLA 2333 or consent of Associate Dean. 3 credit hours. (W)

**LGLA 2313 Criminal Law and Procedure**

Fundamental concepts of criminal law and procedure from arrest to final disposition including principles of federal and state law emphasizing the role of the paralegal in the criminal justice system. 3 credit hours. (W)

**LGLA 2323 Intellectual Property**

Presents the fundamentals of intellectual property law, including creation, procurement, preparation, and filing documents related to patents, copyrights, trademarks, and the processes of intellectual property litigation.

Emphasizes the paralegal's role in intellectual property law. 3 credit hours. (W)

**LGLA 2333 Advanced Legal Document Preparation**

Use of office technology skills in preparation of legal documents by paralegals based on hypothetical situations drawn from various areas of law. 3 credit hours. (W)

**LGLA 2339 Certified Paralegal Exam Review**

A review of the mandatory and optional topics covered in the Certified Paralegal Examination administered by the National Association of Legal Assistants. Prerequisites: LGLA 1305 and LGLA 1345, or consent of Associate Dean. 3 credit hours. (W)

**LMGT 1319 Introduction to Business Logistics**

A systems approach to managing activities associated with traffic, transportation, inventory management, warehousing, packaging, order processing, and materials handling. 3 credit hours. (W)

**LMGT 1325 Warehouse and Distribution Center Management**

Emphasis on physical distribution and total supply chain management. Includes warehouse operations management, hardware and software operations, bar codes, organizational effectiveness, just-in-time, and continuous replenishment. 3 credit hours. (W)

**LMGT 2330 International Logistics Management**

Identification of the principles and practices involved in international distribution systems including the multinational corporation. Attention to global strategic planning, production, supply, manpower/labor, geography, business communications, cultural, political, and legal issues affecting global distribution and firm/host relationships. 3 credit hours. (W)

**LMGT 2388 Internship: Logistics and Materials Management**

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. 3 credit hours. (W)

**MATH 0314 College Algebra Support**

This course is a support for students enrolled in College Algebra. It will assist in the study of functions and equations. Prerequisite: MATH 0406 or meet TSI college-readiness standard for Mathematics; or equivalent. Corequisite: MATH 1314. 3 credit hours. (D)

**MATH 0324 Mathematics for Business and Social Sciences Support**

This course is a support for students enrolled in Mathematics for Business and Social Sciences. It will

assist in the study of functions and equations.

Prerequisite: MATH 0406 or meet TSI college-readiness standard for Mathematics; or equivalent. Corequisite: MATH 1324. 3 credit hours. (D)

### **MATH 0332 Contemporary Mathematics Support**

Intended for non-STEM (Science, Technology, Engineering and Mathematics) majors. Concepts and processes that support introductory treatments of sets and logic, financial mathematics, probability and statistics. Development of number sense, proportional reasoning, estimation, technology and communication are supported through this course. Prerequisite: Meet TSI college-readiness standard for Mathematics; or equivalent. Corequisite: MATH 1332. 3 credit hours. (D)

### **MATH 0342 Elementary Statistical Methods Support**

A support course for Elementary Statistical Methods with emphasis on real numbers and graphing techniques in real-world problems. Prerequisite: Meet TSI college-readiness standard for Mathematics; or equivalent. Corequisite: MATH 1342. 3 credit hours. (D)

### **MATH 0405 Math Foundations**

Overview of topics in mathematics such as arithmetic operations, number conversions, solving linear equations and inequalities, percent with applications, algebraic expressions, polynomial operations and an introduction to factoring, graphing linear equations, functions, geometric applications of square roots and an introduction to statistics. An emphasis will be placed on developing critical thinking skills. Lab required. Placement Assessment: MATH 0405, or MATH 0405 with NCBM 002A. Prerequisite: TSI Placement, or successful completion of NCBM 002A, or concurrent enrollment with NCBM 002A. 4 credit hours. (D)

### **MATH 0406 Introductory Algebra**

With an emphasis on developing critical thinking skills, a study of arithmetic operations with rational numbers, an introduction to algebraic vocabulary, concepts, and notation, and geometric properties, functions, linear equations, systems of linear equations, polynomial expressions, and quadratic expressions and equations. Lab required. Prerequisite: Meet TSI standard for MATH 0406; or equivalent. 4 credit hours. (D)

### **MATH 1314 College Algebra**

In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Graphing calculator required. Lab required. Prerequisite: MATH 0314 with a grade of C or better, or MATH 0324 with a grade of C or better, or meet TSI

college-readiness standard for Mathematics; or equivalent. 3 credit hours. (A)

Note: Students may take either MATH 1314 or MATH 1414 but not both.

### **MATH 1316 Plane Trigonometry**

In-depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates and parametric equations may be included. Graphing calculator required. Prerequisite: MATH 1314 or MATH 1414; or equivalent. 3 credit hours. (A)

### **MATH 1324 Mathematics for Business and Social Sciences**

The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value. Graphing calculator required. Lab required. Prerequisite: MATH 0314 with a grade of C or better, or MATH 0324 with a grade of C or better, or meet TSI college-readiness standard for Mathematics; or equivalent. 3 credit hours. (A)

### **MATH 1325 Calculus for Business and Social Sciences**

This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences. This course is not a substitute for MATH 2413, Calculus I. Graphing calculator required. Lab required. Prerequisite: MATH 1314, or MATH 1324, or MATH 1414; or equivalent. 3 credit hours. (A)

### **MATH 1332 Contemporary Mathematics (Quantitative Reasoning)**

Intended for Non STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered. Additionally, this course is NOT intended to prepare students for calculus, business, or engineering courses. Prerequisite: MATH 0314 with a grade of C or better, or MATH 0324 with a grade of C or better, or MATH 0332 with a grade of C or better, or MATH 0406,

or meet TSI college-readiness standard for Mathematics; or equivalent. 3 credit hours. (A)

### **MATH 1342 Elementary Statistical Methods**

Collection, analysis, presentation and interpretation of data and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended. Graphing calculator required. Lab required. Prerequisite: MATH 0314 with a grade of C or better, or MATH 0324 with a grade of C or better, or MATH 0342 with a grade of C or better, or MATH 0406, or meet TSI college-readiness standard for Mathematics; or equivalent. 3 credit hours. (A)

### **MATH 1350 Mathematics for Teachers I (Fundamentals of Mathematics I)**

This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, numeration systems, number theory, and properties of the various number systems with an emphasis on problem solving and critical thinking. Prerequisite: MATH 1314 or MATH 1414; or equivalent. 3 credit hours. (A)

Note: This course is intended for students pursuing the AAT degree with an emphasis on middle grades 4-8 and early childhood through grade 6.

### **MATH 1351 Mathematics for Teachers II (Fundamentals of Mathematics II)**

This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the concepts of geometry, measurement, probability, and statistics with an emphasis on problem solving and critical thinking. Prerequisite: MATH 1350, MATH 1314, or MATH 1414; or equivalent. 3 credit hours. (A)

Note: This course is designed specifically for students who seek middle grade (4 through 8) teacher certification.

### **MATH 1376 Calculus for Business and Economics II**

Continuation of Math 1325. In this course, application of differential equations, functions of several variables, Lagrange Multipliers, Least Squares Modeling, multiple integrals and infinite series will be covered. Basic concepts are related to multivariable calculus. Graphing calculator required. Lab required. Prerequisite: MATH 1325. 3 credit hours. (A)

Note: This course will transfer to a specific 2+2 baccalaureate program. Please check with your advisor to learn whether the course will transfer to the four-year program of your choice. There is an additional fee for this course.

### **MATH 1414 College Algebra**

In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Graphing calculator required. Prerequisite: Meet TSI college-readiness standard for Mathematics; or equivalent. 4 credit hours. (A)

Note: Students may take either MATH 1314 or MATH 1414 but not both.

### **MATH 2305 Discrete Mathematics**

A course designed to prepare math, computer science, and engineering majors for a background in abstraction, notation, and critical thinking for the mathematics most directly related to computer science. Topics include: logic, relations, functions, basic set theory, countability and counting arguments, proof techniques, mathematical induction, combinatorics, discrete probability, recursion, sequence and recurrence, elementary number theory, graph theory, and mathematical proof techniques. Graphing calculator required. Prerequisite: MATH 2413 with a C or better. 3 credit hours. (A)

### **MATH 2318 Linear Algebra**

Introduces and provides models for application of the concepts of vector algebra. Topics include finite dimensional vector spaces and their geometric significance; representing and solving systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion; matrices; determinants; linear transformations; quadratic forms; eigenvalues and eigenvector; and applications in science and engineering. Graphing calculator required. Prerequisite: MATH 2414 with a C or better. 3 credit hours. (A)

### **MATH 2320 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. Lab required. Prerequisite: MATH 2414 with a C or better. 3 credit hours. (A)

### **MATH 2373 Matrices, Vectors, and Linear Programming**

Not for science majors. A study of matrices, vectors, determinants, inverses, system of linear equations, and linear programming with applications. Scientific calculator required. Prerequisite: MATH 1314 or MATH 1414; or equivalent. 3 credit hours. (A)

Note: This course will transfer to a specific 2+2



baccalaureate program. Please check with your advisor to learn whether the course will transfer to the four-year program of your choice. There is an additional fee for this course.

### **MATH 2412 Pre-Calculus Math**

In-depth combined study of algebra, trigonometry, and other topics for calculus readiness. Graphing calculator required. Lab required. Prerequisite: MATH 1314 with a C or better; or equivalent preparation. 4 credit hours. (A)

### **MATH 2413 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. Prerequisite: MATH 2412 with a C or better; or equivalent preparation. 4 credit hours. (A)

### **MATH 2414 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: MATH 2413 with a C or better. 4 credit hours. (A)

### **MATH 2415 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: MATH 2414 with a C or better. 4 credit hours. (A)

### **MDCA 1154 Medical Assisting Credentialing Exam Review**

A preparation for one of the National Commission for Certifying Agencies (NCCA) recognized credentialing exams. Prerequisites: HITT 1305, HPRS 2301, HPRS 2321, MDCA 1309, MDCA 1321, MDCA 1417, MDCA 1448, and MDCA 1452. 1 credit hour. (W)

### **MDCA 1309 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. 3 credit hours. (W)

### **MDCA 1321 Administrative Procedures**

Medical office procedures including appointment scheduling, medical records creation and maintenance, interpersonal communications, bookkeeping tasks, coding, billing, collecting, third party reimbursement, credit arrangements, and computer use in the medical office. 3 credit hours. (W)

### **MDCA 1360 Clinical - Medical/Clinical Assistant**

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: HITT 1305, HPRS 2301, HPRS 2321, MDCA 1309, MDCA 1321, MDCA 1417, MDCA 1448, MDCA 1452. 3 credit hours. (W)

### **MDCA 1417 Procedures in a Clinical Setting**

Emphasis on patient assessment, examination, and treatment as directed by physician. Includes vital signs, collection and documentation of patient information, asepsis, office clinical procedures, and other treatments as appropriate for ambulatory care settings. Lab required. 4 credit hours. (W)

### **MDCA 1448 Pharmacology & 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. Lab required. 4 credit hours. (W)

### **MDCA 1452 Medical Assistant Laboratory Procedures**

Application of governmental health care guidelines. Includes specimen collection and handling, quality assurance and quality control in performance of Clinical Laboratory Improvement Amendments (CLIA)-waived laboratory testing. Lab required. 4 credit hours. (W)

### **MILS 1141 Foundations of Leadership**

Fundamental concepts of leadership in a profession in both classroom and outdoor laboratory environments. The study of time management skills, basic drill and ceremony, physical fitness, rappelling, leadership reaction course, first aid, making presentations and marksmanship. Concurrent enrollment in MILS 1180 leadership lab and mandatory participation in independent physical fitness training, plus optional participation in a weekend field training exercise. 1 credit hour. (A)

**MILS 1142 Introduction to Leadership**

Application of principles of leadership through participation in physically and mentally challenging exercises with upper-division ROTC students. Course focuses on communication skills, organizational ethics, and study and time management techniques. Concurrent enrollment in MILS 1180 leadership lab and mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise. 1 credit hour. (A)

**MILS 1180 Leadership Laboratory**

Practical laboratory of applied leadership and skills. Student-planned, -organized and -conducted training, oriented toward leadership development. Laboratory topics include marksmanship, small unit tactics, multi-tiered programs focused on individual skill levels. Uniform and equipment provided, no fee. May be repeated for credit. 1 credit hour. (A)

**MILS 2251 Individual/Team Development**

Application of ethics-based leadership skills and fundamentals of ROTC's Leadership Development Program. Develop skills in oral presentations, concise writing, event planning, coordination of group efforts, advanced first aid, land navigation, and military tactics. Concurrent enrollment in MILS 1180 leadership lab and mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise. 2 credit hours. (A)

**MILS 2252 Individual/Team Military Tactics**

Introduction to individual and team aspects of military tactics in small unit operations. Includes use of radio communications, making safety assessments, movement techniques, planning for team safety/security, and pre-execution checks. Concurrent enrollment in MILS 1180 leadership lab and mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise. 2 credit hours. (A)

**MRKG 1301 Customer Relationship Management**

General principles of customer relationship management including skills, knowledge, attitudes, and behaviors. 3 credit hours. (W)

**MRKG 1311 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)

**MRKG 2312 e-Commerce Marketing**

Explore electronic tools utilized in marketing, focus on

marketing communications in developing customer relationships. 3 credit hours. (W)

**MRKG 2333 Principles of Selling**

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)

**MRKG 2348 Marketing Research and Strategies**

Practical experiences in analyzing marketing studies using data-driven decision-making processes. Includes interrelationships among marketing mix. 3 credit hours. (W)

**MRKG 2349 Advertising and Sales Promotion**

Integrated marketing communications. Includes advertising principles and practices. Emphasizes multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints. 3 credit hours. (W)

**MRKG 2381 Cooperative Education-Marketing/Marketing Management, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**MUAP 1101 Secondary Applied Music-Violin**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1105 Secondary Applied Music-Viola**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1109 Secondary Applied Music-Cello**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1113 Secondary Applied Music-Double Bass**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1115 Secondary Applied Music-Electric Bass**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1117 Secondary Applied Music-Flute**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1121 Secondary Applied Music-Oboe**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1125 Secondary Applied Music-Bassoon**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1129 Secondary Applied Music-Clarinet**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites:

Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1133 Secondary Applied Music-Saxophone**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1137 Secondary Applied Music-Trumpet**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1141 Secondary Applied Music-French Horn**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1145 Secondary Applied Music-Trombone**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1149 Secondary Applied Music-Baritone**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1153 Secondary Applied Music-Tuba**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

#### **MUAP 1157 Secondary Applied Music-Percussion**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit

hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1158 Secondary Applied Music-Drum Set**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1161 Secondary Applied Music-Guitar**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1162 Secondary Applied Music-Jazz Guitar**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1163 Secondary Applied Music-Steel String Guitar**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1165 Secondary Applied Music-Organ**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1169 Secondary Applied Music-Piano**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291

**MUAP 1170 Secondary Applied Music-Jazz Piano**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1177 Secondary Applied Music-Harp**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1181 Secondary Applied Music-Voice**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1187 Secondary Applied Music-Composition**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1188 Secondary Applied Music-Electroacoustic Composition**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission

prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1189 Secondary Applied Music-Songwriting**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1190 Secondary Applied Music-Arranging**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 1191 Secondary Applied Music Conducting**

Individual instruction in voice, instrument, composition, or conducting. Additionally, 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 the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). 1 credit hour. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-MUAP 2291.

**MUAP 2201 Concentration Applied Music-Violin**

Individual instruction in voice, instrument, composition,

or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2205 Concentration Applied Music-Viola**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2209 Concentration Applied Music-Cello**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must

attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2213 Concentration Applied Music-Double Bass**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2215 Concentration Applied Music-Electric Bass**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact



the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2217 Concentration Applied Music-Flute**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2221 Concentration Applied Music-Oboe**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time

enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2225 Concentration Applied Music-Bassoon**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2229 Concentration Applied Music-Clarinet**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

### **MUAP 2233 Concentration Applied Music-Saxophone**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

### **MUAP 2237 Concentration Applied Music-Trumpet**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

### **MUAP 2241 Concentration Applied Music-French Horn**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-

minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

### **MUAP 2245 Concentration Applied Music-Trombone**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

### **MUAP 2249 Concentration Applied Music-Baritone**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in

addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2253 Concentration Applied Music-Tuba**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2257 Concentration Applied Music-Percussion**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in

at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2258 Concentration Applied Music-Drum Set**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2261 Concentration Applied Music-Guitar**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2262 Concentration Applied Music-Jazz Guitar**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2263 Concentration Applied Music-Steel String Guitar**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2265 Concentration Applied Music-Organ**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2269 Concentration Applied Music-Piano**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2270 Concentration Applied Music-Jazz Piano**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in

1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2277 Concentration Applied Music-Harp**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2281 Concentration Applied Music-Voice**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end

of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2287 Concentration Applied Music-Composition**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2288 Concentration Applied Music-Electroacoustic Composition**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain

enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2289 Concentration Applied Music-Songwriting**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2290 Concentration Applied Music-Arranging**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUAP 2291 Concentration Applied Music-Conducting**

Individual instruction in voice, instrument, composition, or conducting. Additionally, private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in 1 (one) credit hour of a MUEN course and at least 4 (four) credit hours to be selected from MUSI, MUEN, MUSB, or MUSC courses. All MUAP students must attend weekly Departmental recitals for the semester (in addition to their weekly lesson), perform in 1 (one) Departmental recital, and participate in a jury at the end of the semester. For full-time Music majors only. Contact the Music Department for permission prior to registering. Prerequisite: Audition. Corequisites: Remain enrolled in at least one credit hour of MUEN class(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSC, MUSI or MUSC class(es). Full-time enrollment (12 credit hour minimum) status. 2 credit hours. (A)

Note: Students may receive credit for up to 20 credit hours of any combination of MUAP courses. This includes MUAP 1101-2291.

#### **MUEN 1121 Jazz Lab Band**

Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra. Additionally, 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. Lab required.

Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN 1121 and MUEN 1122 for a combined total of no more than 8 credit hours.

#### **MUEN 1122 Symphonic Wind Ensemble**

Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

Additionally, study and performance of traditional and contemporary symphonic wind literature. Students participate in weekly rehearsals and perform on scheduled concerts. Basic instrumental proficiency is required. Lab required. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN 1121 and MUEN 1122 for a combined total of no more than 8 credit hours.

**MUEN 1131 New Music Ensemble**

Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles. Additionally, performs experimental, avant garde, electronic, and contemporary music for mixed media ensemble including compositions by student composers. Lab required. Prerequisite:

Audition. 1 credit hour. (A)

Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.

**MUEN 1132 Keyboard Ensemble**

Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles. Additionally, traditional piano literature for multiple performers and arrangements for electronic keyboard ensemble. Several performances each semester. Lab required. Prerequisite:

Audition. 1 credit hour. (A)

Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.

**MUEN 1133 Woodwind Ensemble**

Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles. Additionally, a small group of woodwinds performs traditional classical repertoire. Lab required. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.

**MUEN 1134 Brass Ensemble**

Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles. Additionally, a small group of brass players perform traditional classical repertoire. Lab required. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.

**MUEN 1135 Expressions Combo**

Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles. Additionally,

expressions Combo is a small ensemble (4-6) of musicians who serve as the rhythm selection 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. Lab required. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.

**MUEN 1136 Harp Ensemble**

Example of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles. Additionally, this is a study and performance of traditional and contemporary symphonic harp ensemble literature. Students participate in weekly rehearsals and perform on scheduled concerts. Basic instrumental proficiency is required. Lab required. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.

**MUEN 1137 Guitar Ensemble**

Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles. Additionally, a small group of guitarists performs traditional classical repertoire. Lab required. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.

**MUEN 1138 Percussion Ensemble**

Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles. Additionally, a small group of percussion players performs jazz and traditional repertoire. Lab required. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.



**MUEN 1139 String Ensemble**

Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles. Additionally, a small group of string players performs traditional classical repertoire. Lab required. Prerequisite: Audition. 1 credit hour. (A)

Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.

**MUEN 1140 Jazz Combo**

Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles. Additionally, 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. Lab required.

Prerequisite: Audition or consent of Instructor. 1 credit hour. (A)

Note: Students may take MUEN 1131, MUEN 1132, MUEN 1133, MUEN 1134, MUEN 1135, MUEN 1136, MUEN 1137, MUEN 1138, MUEN 1139, and MUEN 1140 for a combined total of no more than 8 credit hours.

**MUEN 1141 Collin Chorale**

Any large chorale ensemble. Additionally, 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 and open to all interested students. Lab required. Prerequisite: Consent of Instructor. 1 credit hour. (A) Note: Student may take MUEN 1141 and MUEN 1142 for a combined total of no more than 8 credit hours.

**MUEN 1142 Expressions Vocal Jazz Ensemble**

Any large choral ensemble. Additionally, 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. Lab required.

Prerequisite: Audition. 1 credit hour. (A)

Note: Student may take MUEN 1141 and MUEN 1142 for a combined total of no more than 8 credit hours.

**MUEN 1151 A Capella Pop Group**

Examples of small vocal ensembles may include but are not limited to glee club, madrigals, opera/musical theater,

commercial and folk. Additionally, this is a study and performance of accompanied and a cappella vocal music including contemporary pop and jazz repertoire for various sized groups and voice combinations. There may be several performances on and off campus each semester. Lab required. Prerequisite: Audition. 1 credit hour. (A)

Note: Student may take MUEN 1151, MUEN 1152, MUEN 1153, and MUEN 1154 for a combined total of no more than 8 credit hours.

**MUEN 1152 Opera Theatre Ensemble**

Example of small vocal ensembles may include but are not limited to glee club, madrigals, opera/musical theater, commercial, and folk. Additionally, this is a study of opera through performances of scenes and full productions. Emphasis is placed on the musical and dramatic qualities of performance, preparation of character, and aspects of language diction from the selected production. Audition required. Lab required.

Prerequisite: Audition. 1 credit hour. (A) Note: Student may take MUEN 1151, MUEN 1152, MUEN 1153, and MUEN 1154 for a combined total of no more than 8 credit hours.

**MUEN 1153 Chamber Choir**

Example of small vocal ensembles may include but are not limited to glee club, madrigals, opera/musical theater, commercial, and folk. Additionally, a select audition-only choir devoted to performance of an eclectic repertoire 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. Lab required.

Prerequisite: Consent of Instructor. 1 credit hour. (A)

Note: Student may take MUEN 1151, MUEN 1152, MUEN 1153, and MUEN 1154 for a combined total of no more than 8 credit hours.

**MUEN 1154 Musical Theatre Ensemble**

Examples of small vocal ensembles may include but are not limited to glee club, madrigals, opera/musical theater, commercial, and folk. Additionally, this is a study of musical theatre through performances of scenes and small-scale productions. Emphasis is placed on the musical and dramatic qualities of performance, preparation of character, and aspects of language diction from the selected production. Lab required. Prerequisite: Audition. 1 credit hour. (A) Note: Students may take MUEN 1151, MUEN 1152, MUEN 1153, and MUEN 1154 for a combined total of no more than 8 credit hours.

**MUSB 1305 Survey of the Music Business**

An overview of the music industry including songwriting, live performance, the record industry, music merchandising, contracts and licenses, and career opportunities. 3 credit hours. (W)

**MUSB 1341 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: MUSB 1305. 3 credit hours. (W)

**MUSB 2301 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)

**MUSB 2345 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. Lab required. Prerequisite: MUSB 1305. 3 credit hours. (W)

**MUSB 2350 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 Associate Dean. 3 credit hours. (W)

**MUSB 2355 Legal Aspects of the Entertainment Industry**

Copyright law and the various agreements used in the entertainment industry. Emphasizes contracts used by music publishers, record companies, artist managers, record producers, film and television producers, and booking agencies. Prerequisite: MUSB 1305. 3 credit hours. (W)

**MUSB 2380 Cooperative Education-Music Management**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer,

the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**MUSC 1209 Conducting Class**

Introduction to the art of conducting including regular and irregular beat patterns, subdivision, and beat pattern varieties applied to musical literature and practical experiences. Lab required. 2 credit hours. (W)

**MUSC 1313 Commercial Music Theory I**

Introduction to chord progressions, song forms, and harmonic techniques used in commercial music. Topics include modern chord notation and chord voicings. Prerequisite: MUSI 1303. 3 credit hours. (W)

**MUSC 1321 Songwriting I**

Introduction to the techniques of writing marketable songs including the writing of lyrics and melodies, setting lyrics to music, developing lyrical and musical "hooks," analyzing the marketplace, and developing a production plan for a song demo. 3 credit hours. (W)

**MUSC 1323 Audio Electronics**

Basic concepts in electricity, Ohm's Law, circuit analysis and troubleshooting. Includes soldering techniques, and equipment maintenance. Lab required. 3 credit hours. (W)

**MUSC 1327 Audio Engineering I**

The tools, personnel and standard workflow of a recording studio. Topics include fundamentals of sound and overview of tracking, editing, and mixing audio. Lab required. 3 credit hours. (W)

**MUSC 1331 MIDI I**

Exploration of Musical Instrument Digital Interface (MIDI) systems and applications. Includes the MIDI language and applications in the studio environment using software-based sequencing programs. Lab required. 3 credit hours. (W)

**MUSC 1333 Synthesis I**

An exploration of sound synthesis. Includes additive, subtractive, and modulation-based synthesizers. Lab required. 3 credit hours. (W)

**MUSC 1405 Live Sound I**

An overview of the field of live sound. Includes principles of live sound and the theory and interconnection of the components of a sound reinforcement system. Lab required. Prerequisite: MUSC 1327. 4 credit hours. (W)

**MUSC 2313 Commercial Music Theory II**

Continuation of Commercial Music Theory I.

Emphasizes harmonic and melodic analysis, extended chord theory, and modal and altered scales. Prerequisite: MUSC 1313 or consent of Instructor. 3 credit hours. (W)

### **MUSC 2314 Improvisation Theory I**

Chordal structures of commercial music genres. Emphasizes extemporaneous performance. 3 credit hours. (W)

### **MUSC 2330 Commercial Music Arranging and Composition**

Presentation of techniques for arranging and composing projects in the commercial music industry. Lab required. 3 credit hours. (W)

### **MUSC 2345 Synthesis II**

Advanced sound synthesis. Includes hybrid synthesis and digital sampling. Lab required. Prerequisite: MUSC 1333. 3 credit hours. (W)

### **MUSC 2351 Audio for Video**

Advanced audio techniques for video production. Includes synchronization, automated mixdown, audio post production for video, and editing techniques. Lab required. Prerequisite: ARTV 1343 or MUSC 1327. 3 credit hours. (W)

### **MUSC 2355 MIDI II**

Advanced MIDI concepts and techniques. Includes synchronizing MIDI and audio and advanced sequencer operation. Prerequisite: MUSC 1331 with a grade of "C" or better; or consent of Instructor. Lab required. 3 credit hours. (W)

### **MUSC 2356 Songwriting II**

Continuation in the development of techniques for writing marketable songs including the writing of lyrics and melodies, setting lyrics to music, developing lyrical and musical "hooks," analyzing the marketplace, and developing a production plan for a song demo. Prerequisite: MUSC 1321, or consent of Instructor. 3 credit hours. (W)

### **MUSC 2403 Live Sound II**

Overview of stage monitor systems. Includes monitor systems set-up and operation and stage management. Also covers interactivity between sound management, performance quality, and audience experience. Lab required. Prerequisite: MUSC 1405. 4 credit hours. (W)

### **MUSC 2427 Audio Engineering II**

Implementation of the recording process, including microphones, audio console, multi-track recorder, and signal processing devices. Lab required. Prerequisite:

MUSC 1327 with a grade of "B" or better; or consent of Instructor. 4 credit hours. (W)

### **MUSC 2447 Audio Engineering III**

Advanced techniques in recording and manipulation of audio. Includes digital audio editing, recording techniques, and signal processing. Prerequisite: MUSC 2427 with a grade of "C" or better; or consent of Instructor. Lab required. 4 credit hours. (W)

### **MUSC 2448 Audio Engineering IV**

Continued enhancement of recording, mixing, arranging, and editing. Includes the role of the producer in session planning, communication, budgeting, business aspects, technical considerations, and music markets. Prerequisite: MUSC 2447 with a grade of "C" or better; or consent of Instructor. Lab required. 4 credit hours. (W)

### **MUSC 2453 Live Sound III**

Advanced concepts of live sound engineering for front-of-house mix. Includes techniques required to build and maintain a live sound mix for an audience. Lab required. Prerequisite: MUSC 2403. 4 credit hours. (W)

### **MUSI 1116 Sight Singing & Ear Training I**

Singing tonal music in treble and bass clefs, and aural study of elements of music, such as scales, intervals and chords, and dictation of basic rhythm, melody and diatonic harmony. Lab required. Prerequisite: MUSI 1303. 1 credit hour. (A)

### **MUSI 1117 Sight Singing & Ear Training II**

Singing tonal music in various clefs, continued aural study of the elements of music, and dictation of intermediate rhythm, melody and diatonic harmony. Lab required. Prerequisite: MUSI 1116. 1 credit hour. (A)

### **MUSI 1161 International Phonetic Alphabet (IPA) for singers**

A study of the International Phonetic Alphabet (IPA) and its application to singing in English, Italian, German, and French. Prerequisite: MUSI 1303. 1 credit hour. (A)

### **MUSI 1181 Piano Class I**

Beginning class instruction in the fundamentals of keyboard technique. Additionally, emphasis is given on the practical application of music theory involving harmonization, transposition and related keyboard skills. Lab required. Prerequisite: MUSI 1303. 1 credit hour. (A) Note: Student may take MUSI 1181, MUSI 1182, MUSI 2181, and MUSI 2182 for a combined total of no more than 4 credit hours.

### **MUSI 1182 Piano Class II**

Advanced beginning class instruction in the fundamentals of keyboard technique. Additionally, this is a continuation

of MUSI 1181. Development of two-octave minor scales, arpeggios, diatonic chord progressions, and piano repertoire. Lab required. Prerequisite: MUSI 1181. 1 credit hour. (A)

Note: Student may take MUSI 1181, MUSI 1182, MUSI 2181, and MUSI 2182 for a combined total of no more than 4 credit hours.

### **MUSI 1183 Voice Class**

Class instruction in the fundamentals of singing including breathing, tone production, and diction. Designed for students with little or no previous voice training. Does not apply to a music major degree. Lab required. 1 credit hour. (A)

### **MUSI 1192 Guitar Class**

Class instruction in the fundamental guitar playing, including technique, music-reading, fretboard theory, melodic and harmonic realizations. Lab required. 1 credit hour. (A)

### **MUSI 1303 Fundamentals of Music**

Introduction to the basic elements of music theory, including scales, intervals, keys, triads, elementary ear training, notation, meter, and rhythm. Course does not apply to a music major degree. 3 credit hours. (A)

### **MUSI 1306 Music Appreciation**

Understanding music through the study of cultural periods, major composers, and musical elements, illustrated with audio recordings and live performances. Course does not apply to a music major degree. Additionally, this course conducts an overview of music history that includes the study of Western art music - the six major eras, composers, their works and musical styles. Emphasis is given to vocabulary and critical listening skills needed to develop an eclectic taste in music. Music majors must take MUSI 1307. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)

### **MUSI 1307 Music Literature**

A survey of the styles and forms of music as it developed from the middle ages to the present. This course will familiarize the student with cultural context, terminology, genres, and notation. Additionally, study of selected works in music literature chosen from the six major eras of Western art music history. Includes musical styles, forms, and composers from the Medieval period to the present. Critical listening skills and technical musical terms are emphasized in this course. Required for all music majors. Prerequisite: MUSI 1303. 3 credit hours. (A)

### **MUSI 1310 American Music**

A general survey of various styles of music of the Americas, including but not limited to jazz, folk, rock, and contemporary music. 3 credit hours. (A)

### **MUSI 1311 Music Theory I**

The study of analysis and writing of tonal melody and diatonic harmony, including fundamental music concepts, scaled, intervals, chords, 7th chords, and early four-part writing. Analysis of small compositional forms. Optional correlated study at the keyboard. Additionally, investigation of music modes, transposition, cadences and non-harmonic tones, phrase structure, musical textures, and four-part voice leading. Prerequisite: MUSI 1303 or consent of Instructor. 3 credit hours. (A)

### **MUSI 1312 Music Theory II**

The study of analysis and writing of tonal melody and diatonic harmony, including diatonic chords and seventh chords in root position and inversions, non-chord tones, and functional harmony. Introduction to more complex topics, such as modulation, may occur. Optional correlated study at the keyboard. Prerequisite: MUSI 1311. 3 credit hours. (A)

### **MUSI 2116 Sight Singing & Ear Training III**

Singing more difficult tonal music in various clefs, aural study including dictation of more complex rhythm, melody, chromatic harmony, and extended tertian structures. Lab required. Prerequisite: MUSI 1117. 1 credit hour. (A)

Note: Student may take MUSI 2116 and MUSI 2117 for a combined total of no more than 4 credit hours.

### **MUSI 2117 Sight Singing & Ear Training IV**

Singing advanced tonal music and introduction of modal and post-tonal melodies. Aural study including dictation of advanced rhythm, melody, and harmony. Lab required. Prerequisite: MUSI 2116. 1 credit hour. (A)

Note: Student may take MUSI 2116 and MUSI 2117 for a combined total of no more than 4 credit hours.

### **MUSI 2181 Piano Class III**

Intermediate class instruction of keyboard technique. Additionally, this is a 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 MUSI 1181, MUSI 1182, MUSI 2181, and MUSI 2182 for a combined total of no more than 4 credit hours.

### **MUSI 2182 Piano Class IV**

Advanced class instruction of keyboard technique.

Additionally, this is a continuation of MUSI 2181. Culmination of skills including scales and arpeggios four-octaves hands together, advanced chord progressions, repertoire, and sight reading. Prepares music majors for piano barrier exams. Lab required. Prerequisite: MUSI 2181. 1 credit hour. (A) Note: Student may take MUSI 1181, MUSI 1182, MUSI 2181, and MUSI 2182 for a combined total of no more than 4 credit hours.

### **MUSI 2311 Music Theory III**

Advanced harmony voice leading, score analysis and writing of more advanced tonal harmony including chromaticism and extended-tertian structures. Optional correlated study at the keyboard. Additionally, 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: MUSI 1312. 3 credit hours. (A)

### **MUSI 2312 Music Theory IV**

Continuation of advanced chromaticism and survey of analytical and compositional procedures in post-tonal music. Optional correlated study at the keyboard. Prerequisite: MUSI 2311. 3 credit hours. (A)

### **MUSI 2389 Academic Cooperative**

An instructional program designed to integrate on-campus study with practical hands-on work experience. 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)

### **MUSP 1104 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. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

### **MUSP 1105 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. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

### **MUSP 1110 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. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

### **MUSP 1113 Introductory Group Piano I**

Fundamentals of playing various accompaniment patterns with chords. Includes reading standard notation, basic scales, and learning introductory improvisational skills. Lab required. 1 credit hours. (W)

### **MUSP 1114 Introductory Group Piano II**

Continuation of playing various accompaniment patterns with chords. Includes reading standard notation, scales, and learning improvisational skills. Lab required. Prerequisite: MUSP 1113 or consent of Instructor. 1 credit hour. (W)

### **MUSP 1117 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. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

### **MUSP 1127 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. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

### **MUSP 1151 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)

**MUSP 1153 Small Commercial Music Ensemble: Rock**

Participation in a rock ensemble concentrating on commercial music performance styles. Prerequisite: Audition and consent of Instructor. 1 credit hour. (W)

**MUSP 1202 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. Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

**MUSP 2230 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. Lab required. Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

**MUSP 2233 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. Lab required. Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

**MUSP 2235 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. Lab required. Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

**MUSP 2237 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. Lab required. Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

**MUSP 2249 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. Lab required. Prerequisite: Audition and consent of Instructor. 2 credit hours. (W)

**NCBM 002A Developmental Refresher**

This Non-Course Based Option supports students in developing skills, strategies, and reasoning needed to succeed in developmental mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving. This option is designed specifically for students who score 3 or 4 on the Adult Basic Education diagnostic test. The Developmental Refresher must be co-enrolled with MATH 0405.

**NCBM 004A Mastery Extension for Math Foundations**

This is a unique opportunity to learn mastery of Math Foundations topics by attending an intensive 2-week session. Students who successfully demonstrate mastery will not have to repeat their previously failed developmental math class. Designed to assist students in mastering topics from Math 0405.

**NCBM 005A Mastery Extension for Beginning Algebra**

This Non-Course Based Option is a unique opportunity for students who were unsuccessful in MATH 0305, MATH 0406, MATH 0332, or MATH 0342. This option allows students to gain mastery of Beginning Algebra topics by attending an intensive 2-week session during the Wintermester and Maymester sessions.

**NCBM 010A Mastery Extension for Intermediate Algebra**

This Non-Course Based Option is a unique opportunity for students who were unsuccessful in MATH 0405, MATH 0314, or MATH 0324. This option allows

students to gain mastery of Intermediate Algebra topics by attending an intensive 2-week session during the Wintermester and Maymester sessions.

**NCBM 0032 Refresher Lab for Contemporary Mathematics (Quantitative Reasoning)**

This Non-Course Based Option is offered strictly online and is designed specifically for students who place at the Intermediate Algebra level, but choose to take MATH 1332 for their degree requirement. The Refresher Lab will assist in developing skills, strategies, and reasoning needed to succeed in MATH 1332. Co-enrollment in MATH 1332 is required.

**NCBM 0042 Refresher Lab for Elementary Statistical Methods**

This Non-Course Based Option is offered strictly online and is designed specifically for students who place at the Intermediate Algebra level, but choose to take MATH 1342 for their degree requirement. The Refresher Lab will assist in developing skills, strategies, and reasoning needed to succeed in MATH 1342. Co-enrollment in MATH 1342 is required.

**NURA 1160 Clinical-Nursing Aide and Patient Care Assistant**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite / Concurrent Enrollment: NURA 1301. 1 credit hour. (W)

**NURA 1301 Nurse Aide for Health Care**

Knowledge, skills, and abilities essential to provide basic care to residents of long-term care facilities. Topics include resident's rights, communication, safety, observation, reporting and assisting residents in maintaining basic comfort and safety. Emphasis is on effective interaction with members of the health care team, restorative services, mental health, and social service's needs. Lab required. 3 credit hours. (W)

**NURS 3210 Transitions to the BSN Role**

Educational and role development opportunities for nurses will be examined. This course focuses on the baccalaureate-prepared nursing role with emphasis on the following topics: Nursing Theory, Professional Foundations of Practice, Critical Abilities of the Baccalaureate Nurse, Quality and Safety for Individuals, Families, Aggregates and Society, and selected Professional Nursing Concepts. The roles of the baccalaureate-prepared nurses and standards that define professionalism are explored. Prerequisite: Admission to the RN-to-BSN program. 2 credit hours.

**NURS 3220 Health Promotion Across Lifespan**

The role of the nurse in promoting health and reducing risk behaviors of individuals and families across the lifespan is the focus of this course. Exemplars of nutrition, physical activity and stress management will be examined with an emphasis on the impact of genetics, values, lifestyle, and cultural influences. Client teaching as an essential function of the nurse is emphasized. In the clinical practicum, the student will facilitate his/ her understanding of factors that enhance health promotion and risk reduction through the development of a long-term relationship with a client and family. Prerequisite: Admission to the RN-to-BSN program. 2 credit hours.

**NURS 3330 Ethics in Health Care**

This course builds on the ethical and legal foundations for professional nursing practice and health care services. Ethical, legal, and moral/social principles along with the ANA Code for Nurses are applied to selected common and complex health care related situations. The role of ethics in the development of professionalism and professional values is explored. Prerequisite: Admission to the RN-to-BSN program. 3 credit hours.

**NURS 3340 Population-focused Community Health I / Clinical**

Introduces the concept of the community of persons/patients, families, and populations as the adult and geriatric patient in the healthcare system and the roles of the nurse in community services. Nurse roles include public policy, provision of primary care, prevention of disease or health risk, education and health promotion, and restoration. Prerequisite: Admission to the RN-to-BSN program. 3 credit hours.

**NURS 3450 Advanced Health Assessment / Clinical**

An in-depth coverage of a comprehensive health assessment with an emphasis on health promotion and how this concept is applied within nursing practice. This course focuses on the techniques of data collection and physical assessment and applying these across the lifespan and in a variety of diverse population groups and populations. This course lends itself to a concept-based approach. Clinical/Lab required. Prerequisite: Admission to the RN-to-BSN program. 4 credit hours.

**NURS 4115 Healthcare Organization**

This course explores the U.S. health care delivery organizations and payment systems. Perspectives of providers, institutions, insurers, and health care workers are described. The role of information in the continuity of care among institutions and inter-disciplinary care teams is articulated. The electronic information infrastructure is examined with implications for nursing practice.



Prerequisite: Admission to the RN-to-BSN program. 1 credit hour.

### **NURS 4225 Nursing Informatics**

This course explores evidence-based research and practice through health care informatics. Includes informatics theories, networks, skills, technology, system implementation, and management of data bases. The role of information in the continuity of care among institutions and inter-disciplinary care teams is articulated. The electronic information infrastructure, including telehealth and individually-customized health care, is examined with implications for nursing practice.

Prerequisite: Admission to the RN-to-BSN program. 2 credit hours.

### **NURS 4235 Health Care Quality**

Provides a multidisciplinary background in the science of healthcare quality management. Students will learn to develop and plan for execution of quality improvement plans, using a quality indicator assessment program, as the framework to develop a paper that identifies quality indicators, their measurements and nursing interventions to improve the quality measurement. Valued-based purchasing will be defined and interventions to assure quality and cost containment will be discussed.

Prerequisite: Admission to the RN-to-BSN program. 2 credit hours.

### **NURS 4345 Population-focused Community Health II / Clinical**

Introduces the concept of the community of persons/patients, families, and populations as the maternal and pediatric patient in the healthcare system and the roles of the nurse in community services. Nurse roles include public policy, provision of primary care, prevention of disease or health risk, education and health promotion, and restoration. Prerequisite: Admission to the RN-to-BSN program. 3 credit hours.

### **NURS 4355 Research and Evidence-based Practice**

This course provides a beginning foundation for the use of research in practice through a synthesis of introductory research knowledge with emphasis on writing, and scholarly exchange. The knowledge gained in this course prepares the student to understand the language of research and the scientific process. This course will prepare the student to understand the steps of the evidenced-based practice process and identify various EBP models to translate evidence into practice. The topics of articulating the clinical questions, using electronic databases to locate evidence, evaluating levels of evidence, and critically appraising the evidence to translate into the best evidence will be explored. Ethical

issues in research and evidence-based practice will be discussed. The course focuses on enhancing the student's ability to read, comprehend, critically appraise, and apply the best evidence to the professional practice of nursing.

Prerequisite: Admission to the RN-to-BSN program. 3 credit hours.

### **NURS 4465 Leadership and Management / Clinical**

This course emphasizes leadership and management theories in communication and conflict resolution, budgeting, human resource management, quality and safety, risk management, change, delegation, decision making, and current issues and trends. Clinical experiences focus on management of issues and interactive observation of leaders and managers in a variety of settings. Prerequisite: Admission to the RN-to-BSN program. 4 credit hours.

### **OSHT 1305 OSHA Regulations - Construction Industry**

A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to the construction industry. Lab required. 3 credit hours. (W)

### **OSHT 1307 Construction Site Safety and Health**

Introduction to safety requirements for construction sites including occupational health and environmental controls. Lab required. 3 credit hours. (W)

### **OSHT 1309 Physical Hazards Control**

A study of the physical hazards in industry and the methods of workplace design and redesign to control these hazards. Emphasis on the regulation codes and standards associated with the control of physical hazards. Lab required. 3 credit hours. (W)

### **OSHT 1313 Accident Prevention, Inspection, and Investigation**

Provides a basis for understanding the nature of occupational hazard recognition, accident prevention, loss reduction, inspection techniques, and accident investigation analysis. 3 credit hours. (W)

### **OSHT 1316 Material Handling**

Proper methods for material handling and storage including safety practices, proper equipment usage, engineering controls, and personal protective equipment. Lab required. 3 credit hours. (W)

### **OSHT 2309 Safety Program Management**

Examine the major safety management issues that affect the workplace including safety awareness, loss control, regulatory issues, and human behavior modification. Lab required. Prerequisite: OSHT 1307. 3 credit hours. (W)

**OSHT 2310 Principles of Safety Engineering**

Methods to predict, eliminate, or reduce unsafe conditions at the design and construction stage utilizing engineering controls. Includes methods of analysis, prioritization, and implementation of control measures for potentially hazardous situations in the workplace. Lab required. Prerequisite: OSHT 1307. 3 credit hours. (W)

**OSHT 2337 Advanced Risk Management**

An exploration of safety management systems such as ANSI Z10 Occupational Health and Safety Management Systems; OSHAS 18000, 18001:2007 Occupational Health and Safety Management Systems Requirements, 18002:2008 Occupational Health and Safety Management Systems Guidelines for Implementation; ISO13000 Risk Manager Standards as ANSI Z69-1:2011 Vocabulary for Risk Management Principles and Guidelines, Z690-3:2011 Risk Assessment Techniques; The FAA Safety Management Systems and such other similar programs as may be appropriate. Lab required. Prerequisite: OSHT 1307. 3 credit hours. (W)

**OSHT 2380 Cooperative Education - Occupational Safety and Health 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 Associate Dean / Director of the program for further information. Prerequisite: OSHT 1307. 3 credit hours. (W)

**PFPB 1321 Plumbing Maintenance and Repair**

Instruction in the practices and procedures employed by a plumber including public relations. Lab required. 3 credit hours. (W)

**PFPB 1323 Plumbing Codes I**

State and local plumbing codes and the application of potable water, waste water, and gas systems relating to residential and light commercial settings. Lab required. 3 credit hours. (W)

**PFPB 1347 Backflow Prevention**

Principles, practices, and regulations of backflow. Includes backpressure, public health, laws and responsibilities, mechanics and use of backflow devices, and equipment testing used in backflow devices. Lab required. Prerequisites: PFPB 1321 and PFPB 1350. 3 credit hours. (W)

**PFPB 1350 Plumbing and Pipefitting Equipment and Safety**

Safe use of hand tools, power tools, rigging, and power equipment used in the plumbing trade for installation of different plumbing systems. 3 credit hours. (W)

**PFPB 1371 Plumbing Fundamentals**

Introduction to the basic principles of plumbing. Topics include drains, vents, water lines, gas lines and plumbing fixtures. Note: This course is designed for non-plumbing majors. Lab required. 3 credit hours. (W)

**PFPB 2308 Piping Standards and Materials**

Identification, description, and application of piping standards and specifications. Includes identification and use of various metallic and non-metallic piping materials, identification and installation of valves, and material take-offs. Lab required. Prerequisites: PFPB 1321 and PFPB 1350. 3 credit hours. (W)

**PFPB 2309 Residential Construction Plumbing I**

Skill development in the procedures and techniques employed by a plumber in the rough-in and top-out stages of a new home or the remodeling of an older home. Lab required. Prerequisites: PFPB 1321 and PFPB 1350. 3 credit hours. (W)

**PFPB 2336 Commercial Construction and Fixture Setting**

Practices and procedures employed by a plumber in the common construction in a commercial building including drain, waste, and vent systems, water systems, and fixture installations. Lab required. Prerequisites: PFPB 1321 and PFPB 1350. 3 credit hours. (W)

**PFPB 2349 Field Measuring, Sketching, and Layout**

Field dimensioning, measuring, sketching, and layout of future process piping and the use, care, and setup of transit and level. Lab required. 3 credit hours. (W)

**PHIL 1301 Introduction to Philosophy**

A study of major issues in philosophy and/or the work of major philosophical figures in philosophy. Topics in philosophy may include theories of reality, theories of knowledge, theories of value, and their practical applications. Additionally, texts studied will be from ancient, medieval, and modern sources. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**PHIL 1304 Introduction to World Religions**

A comparative study of world religions, including but not limited to Hinduism, Buddhism, Judaism, Christianity, and Islam. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**PHIL 2303 Introduction to Formal Logic**

The purpose of the course is to introduce the student to symbolic logic, including syllogisms, propositional and predicate logic, and logical proofs in a system of rules. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**PHIL 2306 Introduction to Ethics**

The systematic evaluation of classical and/or contemporary ethical theories concerning the good life, human conduct in society, morals, and standards of value. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**PHIL 2307 Introduction to Social and Political Philosophy**

A study of major issues in social and political theory and/or the work of major philosophical figures in this area. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**PHIL 2321 Philosophy of Religion**

A study of the major issues in the philosophy of religion such as the existence and nature of God, the relationships between faith and reason, the nature of religious language, religious experience, and the problem of evil. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**PHTC 1300 Digital Photography II**

An introduction to computer and software instruction for imaging. Includes color, gray scale, image conversion, presentation, and ethics. Lab required. Prerequisite: ARTS 2348. 3 credit hours. (W)

**PHTC 1311 Fundamentals of Photography/Digital**

An introduction to camera operation and image production, composition, correct exposure and proper lighting. Lab required. 3 credit hours. (W)

**PHTC 1341 Color Photography I**

Examination of color theory as it applies to photography. Emphasis on color concepts and the intricacies of seeing and photographing in color. Lab required. Prerequisites: PHTC 1300 or ARTS 2349. 3 credit hours. (W)

**PHTC 1343 Expressive Photography**

A study of formal, professional, and individual uses of photography by applying photographic technology to personalized needs. Emphasis on creative visual thinking and problem solving and the exploration of personal vision. Lab required. 3 credit hours. (W)

**PHTC 1345 Illustrative Photography I**

Instruction in the technical aspects involved in

commercial photography. Topics include lighting equipment, techniques of production photography, reproduction principles, illustrative techniques, and advertising. Lab required. Prerequisite: PHTC 1353. 3 credit hours. (W)

**PHTC 1347 Landscape Photography**

Skill development in the inspection of the landscape visually and photographically utilizing various camera formats. Topics include exploration of historic, geographical, and cultural locations, and review of landscape photographers. Lab required. Prerequisite: ARTS 2348 or ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 1351 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: ARTS 2348 or ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 1353 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: ARTS 2348 or ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 1371 Book, Design, and Presentation**

Structure and creation of promotional material and one-of-a-kind material, with emphasis on composition and design elements. Lab required. 3 credit hours. (W)

**PHTC 2331 Architectural Photography**

Study of the equipment, processes, and procedures necessary for the photography of building exteriors and interiors, dusk/night and night architectural landscapes, and construction progress. Lab required. Prerequisite: ARTS 2348 or ARTS 2356 or PHTC 1311. 3 credit hours. (W)

**PHTC 2340 Photographic Studio Management**

In-depth study of photography business management, pricing, market analysis, promotion, networking, job

acquisition, and photographic equipment analysis. Lab required. 3 credit hours. (W)

### **PHTC 2342 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: PHTC 1353. 3 credit hours. (W)

### **PHTC 2343 Portfolio Development**

A culmination experience for the evaluation of the student's photographic competencies. Includes association with a professional photographic organization, completion of portfolio, professional self-presentation, comprehensive exam, and seminars in areas of photographic interest. Prerequisite: Consent of Associate Dean. Lab required. 3 credit hours. (W)

### **PHTC 2349 Digital Photography III**

Advanced concepts in the use of the computer and software for photographic manipulation and output. Lab required. Prerequisites: PHTC 1300 or ARTS 2349. 3 credit hours. (W)

### **PHTC 2353 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: PHTC 1353. 3 credit hours. (W)

### **PHTC 2371 Video Production for Photographers**

This is a foundation course in professional video production for photographers, including video capture, editing, sound recording, color grading, and delivery. Lab required. Prerequisite: ARTS 2348. 3 credit hours. (W)

### **PHTC 2380 Cooperative Education - Commercial Photography**

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. Prerequisite: Consent of Associate Dean. 3 credit hours. (W)

### **PHYS 1401 College Physics I**

Lecture: Fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving. Lab: Laboratory activities will reinforce

fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; emphasis will be on problem solving. Lab required. Prerequisites: MATH 1314, and either MATH 1316 or MATH 2412. 4 credit hours. (A)

### **PHYS 1402 College Physics II**

Lecture: Fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Lab: Laboratory activities will reinforce fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Lab required. Prerequisite: PHYS 1401. 4 credit hours. (A)

### **PHYS 1403 Stars and Galaxies**

Introduction to stars and galaxies; basic tools and concepts in astronomy and physics are discussed. Subjects studied include stellar evolution, supernovae, black holes, neutron stars, galaxies, and quasars. Laboratory exercises, night observations, planetarium and observatory visits combine to enhance lecture material. Lab required. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading; or equivalent. 4 credit hours. (A)

### **PHYS 1404 Solar System**

Introduction to the solar system; basic tools and concepts in astronomy and physics are discussed. Subjects studied include planets, moons, asteroids, comets, solar system formation, and solar system exploration. Laboratory exercises, night observations, planetarium and observatory visits combine to enhance lecture material. Lab required. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading; or equivalent. 4 credit hours. (A)

### **PHYS 1405 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. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-

readiness standard for Reading; or equivalent. 4 credit hours. (A)

### **PHYS 1410 Physics of Music and Sound**

This course is a study of the physics governing production, transmission and perception of sound. The focus is on the physical characteristics of sound, as well as the basic physical relationships that govern all vibrations and waves. We will also consider how sound is affected by the environment (acoustics) and how sound is physically and physiologically perceived. Laboratory exercises and classroom demonstrations combine to enhance lecture material. Lab required. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading; or equivalent. 4 credit hours. (A)

### **PHYS 1415 Physical Science I**

Investigation of everyday phenomena of the physical world, which helps students to achieve a well-grounded understanding of selected science concepts as well as the skills that enable and encourage rational independent thinking. Lab required. Prerequisite: Meet TSI standard for MATH 0405, and TSI college-readiness standard for Reading; or equivalent. 4 credit hours. (A)

### **PHYS 1417 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. Prerequisite: Meet TSI college-readiness standard for Mathematics, and TSI college-readiness standard for Reading; or equivalent. 4 credit hours. (A)

### **PHYS 2389 Academic Co-op Physics**

Integrates on-campus study with practical hands-on work experience in physics. In conjunction with class seminars, the student will set specific goals and objectives in the study of physics. Contact the Cooperative Work Experience Office. 3 credit hours. (A)

### **PHYS 2425 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 and physical systems, and the laws of thermodynamics; and 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: MATH 2413 equivalent within the last five years with a grade of "C" or better.

Prerequisite/Concurrent enrollment: MATH 2414 equivalent. 4 credit hours. (A)

### **PHYS 2426 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, and 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: MATH 2414 equivalent, and PHYS 2425 within the last five years with a grade of "C" or better. 4 credit hours. (A)

### **PLAB 1160 Clinical - Phlebotomy**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills. Direct supervision is provided by the clinical professional. Prerequisite: PLAB 1323. 1 credit hours. (W)

### **PLAB 1323 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. 3 credit hours. (W)

### **POFI 2301 Word Processing-MS Word**

Word processing software focusing on business applications. Lab required. Prerequisite/ Concurrent enrollment: POFT 1329. 3 credit hours. (W)

### **POFI 2331 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. Lab required. Prerequisite: POFI 2301. 3 credit hours. (W)

**POFT 1307 Proofreading and Editing**

Instruction in proofreading and editing skills necessary to assure accuracy in business documents. Lab required. 3 credit hours. (W)

**POFT 1319 Records and Information Management I**

Introduction to basic records information management systems including manual and electronic filing. Lab required. 3 credit hours. (W)

**POFT 1329 Beginning Keyboarding**

Skill development of keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. 3 credit hours. (W)

**POFT 1349 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 Business Office Support Systems degree or certificate. Lab required. Prerequisites: ITSC 1309, POFI 2301, POFT 1307, POFT 1319, and POFT 2301. 3 credit hours. (W)

**POFT 1380 Cooperative Education-Administrative Assistant and Secretarial Science, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Associate Dean. 3 credit hours. (W)

**POFT 2301 Intermediate Keyboarding**

A continuation of keyboarding skills emphasizing acceptable speed, and accuracy levels and formatting documents. Lab required. Prerequisite: POFT 1329. 3 credit hours. (W)

**POFT 2303 Speed and Accuracy Building**

Review, correct, and improve keyboarding techniques for the purpose of increasing speed and improving accuracy. Lab required. Prerequisite: POFT 1329. 3 credit hours. (W)

**POFT 2312 Business Correspondence and Communication**

Development of writing and presentation skills to produce effective business communications. Lab required. Prerequisite: POFT 1329. 3 credit hours. (W)

**POFT 2380 Cooperative Education-Administrative Assistant and Secretarial Science, General**

Career-related activities encountered in the student's area

of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Associate Dean. 3 credit hours. (W)

**PSGT 1205 Neurophysiology of Sleep**

Review of the human central nervous system as related to sleep. Emphasis on associated wave patterns and collection and utilization of sleep histories. Major Requirement: AAS - Polysomnographic Technology. 2 credit hours. (W)

**PSGT 1215 Introduction to Polysomnography**

Introduction to the history of sleep medicine and the role of the technologist in current practice settings. Lab required. Major Requirement: AAS - Polysomnographic Technology. 2 credit hours. (W)

**PSGT 1260 Certificate Clinical I-Polysomnography**

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: Admitted to the Certificate -Polysomnographic Technology Program. Corequisite: PSGT 1400. Major Requirement: Certificate - Polysomnographic Technology. 2 credit hours. (W)

**PSGT 1310 Neuroanatomy and Physiology**

Basic neuroanatomy and physiology. Includes neurologic history, neurologic exam, and diagnostic tools applied to the study of various neurologic disorders. Major Requirement: AAS - Polysomnographic Technology. 3 credit hours. (W)

**PSGT 1340 Sleep Disorders**

Disorders that affect sleep. Includes insomnia, circadian rhythm disorders, narcolepsy, sleep disordered breathing, REM Behavior, movement and neuromuscular disorders, medical, and psychiatric. Prerequisite: PSGT 1310. Major Requirement: AAS or Certificate - Polysomnographic Technology. 3 credit hours. (W)

**PSGT 1360 AAS Clinical I-Polysomnography**

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: PSGT 1400. Major Requirement: AAS-Polysomnographic Technology. 3 credit hours. (W)

**PSGT 1400 Polysomnography I**

Introduction to polysomnographic technology. Includes terminology, instrumentation, patient safety, infection control, recording and monitoring techniques, documentation, professional issues, and patient-technologist interactions. Lab required. Major Requirement: AAS or Certificate - Polysomnographic Technology. 4 credit hours. (W)

**PSGT 2205 Sleep Scoring and Staging**

Development of skills for sleep scoring, staging, and record preparation. Lab required. Prerequisite: PSGT 1400. Major Requirement: AAS or Certificate - Polysomnographic Technology. 2 credit hours. (W)

**PSGT 2250 Infant and Pediatric Polysomnography**

Sleep physiology and the normal sleep patterns of the infant and pediatric population. Includes opportunities to perform a pediatric study. Lab required. Prerequisite: PSGT 1400. Major Requirement: AAS or Certificate - Polysomnographic Technology. 2 credit hours. (W)

**PSGT 2260 Certificate Clinical II - Polysomnography**

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: PSGT 1260. Major Requirement: Certificate - Polysomnographic Technology. 2 credit hours. (W)

**PSGT 2271 Pharmacology for Polysomnography**

Discusses the basic principles of pharmacology and the clinical and pharmacological treatment of sleep disorders. Addresses the use of sleep medication in children, adolescents, and the elderly. Examines the administration, mode of action, and the physiological effects of pharmacological agents on sleep. Prerequisite: PSGT 1205. Major Requirement: AAS - Polysomnographic Technology. 2 credit hours. (W)

**PSGT 2272 Polysomnography Exam Preparation**

Comprehensive review to optimize polysomnography credentialing exam success. Lab required. Prerequisite: Consent of Program Coordinator. Major Requirement: AAS or Certificate - Polysomnographic Technology. 2 credit hours. (W)

**PSGT 2360 AAS Clinical II - Polysomnography**

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: PSGT 1360. Major Requirement: AAS Polysomnographic Technology. 3 credit hours. (W)

**PSGT 2361 AAS Clinical III - Polysomnography**

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: PSGT 2360. Major Requirement: AAS Polysomnographic Technology. 3 credit hours. (W)

**PSGT 2374 Clinical Sleep Education**

Overview of the role of the Clinical Sleep Educator, including patient education delivery styles, examination of patient learning styles, and a review to optimize credentialing exam success on the Certification in Clinical Sleep Health (CCSH) Exam. Lab required. Prerequisite: Consent of Program Director. 3 credit hours. (W)

**PSGT 2411 Polysomnography II**

Current practices in polysomnography. Includes the use of specialized equipment used to record and monitor various physiological parameters involved with sleep testing. Emphasizes sleep disorders, theory of testing and treatment procedures, and analysis of polysomnography data. Lab required. Prerequisite: PSGT 1400. Major Requirement: AAS or Certificate - Polysomnographic Technology. 4 credit hours. (W)

**PSTR 1301 Fundamentals of Baking**

Fundamentals of baking including dough, quick breads, pies, cakes, cookies, and tarts. 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. Prerequisite: Mandatory Culinary / Pastry Arts Orientation. 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 1305 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: CHEF 1305 with a grade of "C" or better and PSTR 1301 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 1306 Cake Decorating I**

Introduction to skills, concepts and techniques of cake



decorating. Professional chef uniform and kitchen tools required. Lab required. Prerequisites: CHEF 1305 with a grade of "C" or better and PSTR 1301 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 1310 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 of finishing and presentation techniques. Professional chef uniform and kitchen tools required. Lab required. Prerequisites: CHEF 1305 with a grade of "C" or better and PSTR 1301 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 1312 Laminated Dough, Pate a Choux, and Donuts**

Focus on preparation of laminated dough to include puff pastry, croissant, Danish and a variety of pate a choux products and donuts. Fillings and finishing techniques included. Professional chef uniform and kitchen tools required. Lab required. Prerequisite: PSTR 1310. 3 credit hours. (W)

Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.

#### **PSTR 1340 Plated Desserts**

Preparation and service of hot and cold desserts with a focus on individual desserts, a la minute preparations, and numerous components within one preparation. Emphasis on station organization, timing, and service coordination for restaurant dessert production. Professional chef uniform and kitchen tools required. Lab required. Prerequisites: CHEF 1305 with a grade of "C" or better and PSTR 1301 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 1342 Quantity Bakeshop Production**

Advanced baking techniques to include volume production of a variety of breads and desserts. Lab required. Prerequisite: PSTR 1343. 3 credit hours. (W)

#### **PSTR 1343 Bakery Operations and Management**

Introduction to management, marketing, supervision, and sanitation principles required in retail bakery operations. Emphasis on cost control, pricing, computer usage, and personnel issues. Lab required. Prerequisite: PSTR 1310. 3 credit hours. (W)

#### **PSTR 1364 Practicum (or Field Experience) - Baking and Pastry Arts/Baker/Pastry Chef**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: PSTR 1310. 3 credit hours. (W)

#### **PSTR 2301 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: CHEF 1305 with a grade of "C" or better and PSTR 1301 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 2307 Cake Decorating II**

A course in decoration of specialized and seasonal products. Professional chef uniform and kitchen tools required. Lab required. Prerequisite: PSTR 1306 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 2331 Advanced Pastry Shop**

A study of classical desserts, French and international pastries, hot and cold desserts, ice creams and ices, chocolate work, and decorations. Emphasis on advanced techniques. Professional chef uniform and kitchen tools required. Lab required. Prerequisites: PSTR 1305, PSTR 1306, PSTR 1310, PSTR 2301 and PSTR 2307. 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 2380 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: CHEF 1305 with a grade of "C" or better, PSTR 1301 with a grade of "C" or better, and completion of 9 credit hours in the major core of PSTR. 3 credit hours. (W)

### **PSYC 2301 General Psychology**

General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **PSYC 2306 Human Sexuality**

This course will provide an overview of the broad field of human sexuality. Topics will be covered from various perspectives - biological, sociological, anthropological, etc., but will focus primarily on the psychological perspective. The goal is for each student to learn factual, scientifically-based information that will provoke thought and contribute to his/her own decision-making on sexual issues outside of the classroom. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

Note: Students may take either PSYC 2306 or SOCI 2306 but not both.

### **PSYC 2314 Life-Span Growth and Development**

Life-Span Growth and Development is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death. Prerequisites: PSYC 2301, and meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **PSYC 2315 Psychology of Adjustment**

Gives students deeper insight into their lives and those around them. Includes enhancing self awareness, stress coping, healthy relationships and dealing with loss. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **PSYC 2316 Psychology of Personality**

In-depth study of theories of personality with practical application of each. Methods of personality measurement and assessment are also included. Prerequisites: PSYC 2301, and meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **PSYC 2317 Statistical Methods in Psychology**

This course covers descriptive and inferential statistics used in psychological research and assessment. It includes measurement, characteristics of distributions; measures of central tendency and variability; transformed scores; correlation and regression; probability theory; and

hypotheses testing and inference. (PSYC 2317 is included in the Psychology Field of Study.) Placement Assessments: Placement in ENGL 1301; College-Level Reading. Prerequisite: PSYC 2301 and MATH 1314. 3 credit hours. (A)

### **PSYC 2319 Social Psychology**

Research and theory regarding social factors that influence human behavior. Focuses on attitudes, interpersonal attraction, aggression, conformity, communication, values, roles and group processes. These principles will be applied to the human experience. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours (A)

### **PSYC 2320 Abnormal Psychology**

This course provides an introduction to the psychological, biological, and socio-cultural factors involved in the development, diagnosis, and treatment of psychological disorders. It includes a review of the historical understanding of abnormal behavior and the development of modern diagnostic systems. It includes discussion of psychological research and practice as it relates to mental health and psychological functioning, as well as legal and ethical issues. (PSYC 2320 is included in the Psychology Field of Study.) Prerequisites: PSYC 2301, and meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **PSYC 2330 Biological Psychology**

An introduction to the biological bases of behavior. Topics include evolution, genetics, research methods in behavioral neuroscience, motivation and emotion, sensation and perception, learning and memory, lifespan development, cognition, psychological disorders, and other complex behaviors. (PSYC 2330 is included in the Psychology Field of Study.) Prerequisites: PSYC 2301, and meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **PSYC 2389 Academic Co-op Psychology**

Integrates on-campus study with practical hands-on work experience in psychology. In conjunction with class seminars, the student will set specific goals and objectives in the study of psychology. Contact the Cooperative Work Experience Office. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **PTHA 1160 Clinical – Physical Therapist Assistant**

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: PTHA 1409. 1 credit hour. (W)

**PTHA 1409 Introduction to Physical Therapy**

Introduction to the profession of physical therapy and the role of the physical therapist assistant. Includes the application of basic patient handling, functional skills, communication, and selected data collection techniques. Lab required. 4 credit hours. (W)

**PTHA 1413 Functional Anatomy**

The relationship of the musculoskeletal and neuromuscular systems to normal and abnormal movement. Lab required. 4 credit hours. (W)

**RBTC 1405 Robotic Fundamentals**

Formerly RBTC 1305 An introduction to flexible automation. Topics include installation, repair, maintenance, and development of flexible robotic manufacturing systems. Lab required. 4 credit hours. (W)

**RBTC 2345 Robot Application, Set-up, and Testing**

A course that provides the student with laboratory experience in the installation, set-up, and testing of robotic cells. Topics include maintenance. Prerequisite: RBTC 1305. Lab required. 3 credit hours. (W)

**RECL 1303 Athletic Program Planning**

A study of planning, organizing, and conducting activities for athletic programs. 3 credit hours. (W)

**RECT 1301 Introduction to Therapeutic Recreation**

The history, purpose, and trends of therapeutic recreation. 3 credit hours. (W)

**RELE 1300 Contract Forms and Addenda**

Promulgated Contract Forms, which shall include, but is not limited to, unauthorized practice of law, broker-lawyer committee, current promulgated forms, commission rules governing use of forms and case studies involving use of forms. Prerequisite/Concurrent enrollment: RELE 1311. 3 credit hours. (W)

**RELE 1301 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)

**RELE 1303 Real Estate Appraisal**

The central purposes and functions of an appraisal, social and economic determinants of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting. 3 credit hours. (W)

**RELE 1307 Real Estate Investments**

Characteristics of real estate investments. Includes techniques of investment analysis, time-valued money, discounted and nondiscounted investment criteria, leverage, tax shelters, depreciation, and applications to property tax. 3 credit hours. (W)

**RELE 1311 Law of Contracts**

Elements of a contract, offer and acceptance, statute of frauds, specific performance and remedies for breach, unauthorized practice of law, commission rules relating to use of adopted forms and owner disclosure requirements. 3 credit hours. (W)

**RELE 1315 Property Management**

The role of the property manager, landlord policies, operational guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act. 3 credit hours. (W)

**RELE 1319 Real Estate Finance**

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)

**RELE 1321 Real Estate Marketing**

Real estate professionalism and ethics; characteristics of successful salespersons; time management; psychology of marketing; listing procedures; advertising; negotiation and closing financing; and the Deceptive Trade Practices-Consumer Protection Act. 3 credit hours. (W)

**RELE 1325 Real Estate Mathematics**

Basic arithmetic skills. Includes mathematical logic, percentages, interest, time value of money, depreciation, amortization, proration, and estimation of closing statements. 3 credit hours. (W)

**RELE 1338 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)

#### **RELE 1380 Cooperative Education - Real Estate**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

#### **RELE 2301 Law of Agency**

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 representation procedures, and the disclosure of an agency. 3 credit hours. (W)

#### **RELE 2331 Real Estate Brokerage**

A study of law of agency, planning and organization, operational policies and procedures, recruiting, selection and training of personnel, records and control, and real estate firm analysis and expansion criteria. 3 credit hours. (W)

#### **RELE 2381 Cooperative Education - Real Estate**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

#### **RNSG 1118 Transition to Professional Nursing Competencies**

Transition to professional nursing competencies in the care of patients throughout the lifespan. Validates proficiency in psychomotor skills and clinical reasoning in the performance of nursing procedures related to the concepts of: clinical judgment, comfort, elimination, fluid and electrolytes, nutrition, gas exchange, safety, functional ability, immunity, metabolism, mobility, tissue integrity. Includes health assessment and medication administration. This course lends itself to a concept-based approach. Lab required. Prerequisites: Admission to the Nursing Program and Consent of Program Director. 1 credit hour. (W)

#### **RNSG 1125 Professional Nursing Concepts I**

Introduction to professional nursing concepts and exemplars within the professional nursing roles: member of profession, provider of patient-centered care, patient safety advocate, and member of the health care team. Content includes clinical judgment, communication, ethical-legal, evidence-based practice, health promotion health information technology, patient-centered care, patient education, professionalism, safety, and team/collaboration. Emphasizes role development of the professional nurse. This course lends itself to a concept-based approach. Prerequisite: Admission to the AAS - Nursing (RN) Program. Corequisites: RNSG 1128, RNSG 1161, RNSG 1216 and RNSG 1430, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 1 credit hour. (W)

#### **RNSG 1126 Professional Nursing Concepts II**

Expanding professional nursing concepts and exemplars within the professional nursing roles. Applying concepts of clinical judgment, ethical-legal, evidence-based practice, patient-centered care, professionalism, safety, and team/collaboration to the exemplars presented in the Health Care Concepts II course. Introduces concepts of leadership and management. Emphasizes role development of the professional nurse. This course lends itself to a concept-based approach. Prerequisites: RNSG 1125, RNSG 1128, RNSG 1161, RNSG 1216 and RNSG 1430, all with a grade of "C" or better, or consent of Program Director. Corequisites: RNSG 1533 and RNSG 2361, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 1 credit hour. (W)

#### **RNSG 1128 Introduction to Health Care Concepts**

An introduction to concept-based learning with emphasis on selected pathophysiological concepts with nursing applications. Concepts include acid-base balance, fluid and electrolytes, immunity, gas exchange, perfusion, metabolism, coping, and tissue integrity. This course lends itself to a concept-based approach. Prerequisites: Admission to the Nursing Program and Consent of Program Director. 1 credit hour. (W)

#### **RNSG 1137 Professional Nursing Concepts III**

Application of professional nursing concepts and exemplars within the professional nursing roles. Utilizes concepts of clinical judgment, ethical-legal, evidence-based practice, patient-centered care, professionalism, safety, teamwork and collaboration. Introduces the concepts of quality improvement health information technology, and health care organizations. Incorporates concepts into role development of the professional nurse. This course lends itself to a concept-based approach. Lab required. Prerequisites: RNSG 1126, RNSG 1533 and

RNSG 2361, all with a grade of "C" or better; or consent of Program Director. Corequisites: RNSG1538 and RNSG 2362, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 1 credit hour. (W)

### **RNSG 1161 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. Course focuses on understanding and application of the nursing process, therapeutic communication, the development of critical thinking, patient/client advocacy, and safety to give comprehensive, quality patient-centered care using evidence based outcomes to culturally and socially diverse patient/client systems and documentation of care. Development of teaching/learning plans to address patient/client health care needs. Collaborate with the interdisciplinary health care team to promote, maintain and restore optimal health status of patient/client systems. Prerequisite: Admission to the AAS - Nursing (RN) Program. Corequisites: RNSG 1125, RNSG 1128, RNSG 1216, RNSG 1430, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 1 credit hour. (A)

### **RNSG 1163 Clinical I - Registered Nursing/Registered Nurse**

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. Corequisites: RNSG 1430 and RNSG 1533. Prerequisites: RNSG 1118, RNSG 1128, RNSG 1215, and RNSG 1475. 1 credit hour. (W)

### **RNSG 1215 Health Assessment**

Development of skills and techniques required for a comprehensive nursing health assessment within a legal/ethical framework. This course lends itself to a blocked approach. Lab required. Corequisites: RNSG 1128 and RNSG 1475. Prerequisites: Admission to the LVN to RN Bridge Program and RNSG 1118. 2 credit hours. (W)

### **RNSG 1216 Professional Nursing Competencies**

Development of professional nursing competencies in the care of patients throughout the lifespan. Emphasizes psychomotor skills and clinical reasoning in the performance of nursing procedures related to the concepts of: clinical judgment, comfort, elimination, fluid and electrolytes, nutrition, gas exchange, safety, functional ability, immunity, metabolism, mobility, and tissue integrity. Includes health assessment and medication

administration. This course lends itself to a concept-based approach. Prerequisite: Admission to the AAS - Nursing (RN) Program. Corequisites: RNSG 1125, RNSG 1128, RNSG 1161 and RNSG 1430; or consent of Program Director. Major Requirement: AAS - Nursing (RN). 2 credit hours. (W)

### **RNSG 1324 Concept-Based Transition to Professional Nursing Practice**

Integration of previous health care knowledge and skills into the role development of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team, and member of the profession. Emphasis is on clinical decision-making for patients and their families. Review of selected health care and professional nursing concepts with application through exemplars. Health care concepts include comfort, diversity, elimination, functional ability, human development, mobility, nutrition, sensory perception, sleep, coping, thermoregulation, tissue integrity, acid-base balance, clotting, cognition, fluid and electrolyte balance, gas exchange, immunity, metabolism, nutrition, grief, and perfusion. Professional nursing concepts include clinical judgment, communication, ethical-legal, evidence-based practice, health promotion, health information technology, patient-centered care, patient education, professionalism, safety, teamwork and collaboration. Introduces concept of leadership and management. This course lends itself to a concept-based approach. Prerequisite: Admission to the AAS - Nursing (RN) (LVN / Paramedic / Medic Bridge) Program, or consent of Program Director. Major Requirement: AAS - Nursing (RN) (LVN / Paramedic / Medic Bridge). 3 credit hours. (W)

### **RNSG 1430 Health Care Concepts I**

In-depth coverage of foundational health care concepts with application through selected exemplars. Concepts include comfort, diversity, elimination, functional ability, human development, mobility, nutrition, sensory perception, sleep, thermoregulation, grief, and tissue integrity. Emphasizes development of clinical judgment skills in the beginning nurse. This course lends itself to a concept-based approach. Lab required. Prerequisites: Admission to the Nursing Program and Consent of Program Director. 4 credit hours. (W)

### **RNSG 1475 Transitional Professional Nursing Concepts**

A condensed course of professional nursing concepts and exemplars for the licensed vocational nurse (LVN) transitioning to the role of a professional registered nurse (RN). The course expands the LVN's understanding of legal/ethical dilemmas, clinical judgment, therapeutic

communication, professionalism, safety, evidence-based practice, patient-centered care and advocacy, healthcare team collaboration, quality improvement, health policy, leadership, management and delegation. This course is taught using a concept-based approach. Lab required. Corequisites: RNSG 1128 and RNSG 1215. Prerequisites: Admission to the LVN to RN Bridge Program and RNSG 1118. 4 credit hours. (W)

### **RNSG 1533 Health Care Concepts II**

In-depth coverage of health care concepts with application through selected exemplars. Concepts include acid-base balance, coping, clotting, cognition, fluid and electrolytes, gas exchange, immunity, metabolism, nutrition, comfort, and perfusion. Provides continuing opportunities for development of clinical judgment skills. The course lends itself to a concept-based approach. Lab required. Prerequisites: Admission to the Nursing Program and Consent of Program Director. 5 credit hours. (W)

### **RNSG 1538 Health Care Concepts III**

In-depth coverage of health care concepts with nursing application through selected exemplars. Concepts include cellular regulation, end of life, immunity, interpersonal relationships, grief, human development, intracranial regulation, mood/affect, comfort, sexuality, mobility, and reproduction. Provides continuing opportunities for development of clinical judgment skills. This course lends itself to a concept-based approach. Lab required. Prerequisites: Admission to the Nursing Program and Consent of Program Director. 5 credit hours. (W)

### **RNSG 2138 Professional Nursing Concepts IV**

Integration of professional nursing concepts and exemplars within the professional nursing roles. Synthesizes concepts of clinical judgment, ethical-legal, evidence-based practice, leadership and management, patient-centered care, professionalism, teamwork, and collaboration through exemplars presented in the Health Care Concepts courses. Emphasizes concept of quality improvement and introduces health policy. Incorporates concepts into role development of the professional nurse. This course lends itself to a concept-based approach. Lab required. Prerequisites: RNSG 1137, RNSG 1538 and RNSG 2362 all with a grade of "C" or better; or consent of Program Director. Corequisites: RNSG 2363 and RNSG 2539, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 1 credit hour. (W)

### **RNSG 2162 Clinical II - Registered Nursing/Registered Nurse**

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. Corequisites: RNSG 1538, RNSG 2230, and RNSG 2539. Prerequisites: RNSG 1128, RNSG 1163, RNSG 1533, and PSYC 2314. 1 credit hour. (W)

### **RNSG 2230 Professional Nursing Review and Licensure Preparation**

Review of concepts required for licensure examination and entry into the practice of professional nursing. Includes review of application process of National Council Licensure Examination for Registered Nurses (NCLEX-RN) test plan, assessment of knowledge deficits, and remediation. This course lends itself to either a blocked or integrated approach. Additionally, review of nursing knowledge and skills, study skills, stress management techniques, and test-taking strategies to prepare the graduate nurse (GN) to take the National Licensure Examination for the Registered Nurse (NCLEX-RN). Lab required. Corequisites: RNSG 1162, RNSG 1538, and RNSG 2539. Prerequisites: PSYC 2314, RNSG 1163, RNSG 1430, and RNSG 1533. 2 credit hours. (W)

### **RNSG 2361 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. Course focuses on critical thinking and implementation of the nursing process to plan safe, comprehensive, care for patient/client systems with common physical and mental health needs; development and implementation of teaching/learning plans evidence based data to address health promotion, maintenance, and restoration. Care includes measures to reduce risks and coordinate health resources in collaboration with multi-disciplinary health care team to improve patient/client outcomes. Requires communication/documentation skills, patient/client advocacy, and development of clinical reasoning. Prerequisites: RNSG 1125, RNSG 1128, RNSG 1161, RNSG 1216 and RNSG 1430, all with a grade of "C" or better; or consent of Program Director. Corequisites: RNSG 1126 and RNSG 1533, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 3 credit hours. (A)

### **RNSG 2362 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. Course focuses on

application of critical reasoning and implementation of the nursing process to plan patient-centered care for patient/client systems with complex physiologic and psychosocial health needs/problems using evidence based interventions. Care will include measures to meet patient/client systems teaching/learning needs to promote and maintain optimal health status for the patient/client and their families. Course requires communication / documentation care given; clinical reasoning to manage and coordinate quality, comprehensive patient-centered care and access to health care resources. Prerequisites: RNSG 1126, RNSG 1533 and RNSG 2361 all with a grade of "C" or better; or consent of Program Director. Corequisites: RNSG 1137 and RNSG 1538, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 3 credit hours. (A)

#### **RNSG 2363 Clinical IV-Nursing-Registered Nurse Training**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, clinical reasoning, and concepts. Direct supervision is provided by the clinical professional. Course focuses on transition from student nurse to the roles/competencies and responsibilities of the professional nurse utilizing the nursing process to meet the advanced and integrated health needs of the patient/client systems within hospital and community. Promotion of healthy lifestyles with consideration for preferences of culturally and socially diverse patient/client systems in collaboration with the interdisciplinary health care team to promote and maintain optimal health status. Prerequisites: RNSG 1137, RNSG 1538 and RNSG 2362, all with a grade of "C" or better; or consent of Program Director. Corequisites: RNSG 2138 and RNSG 2539, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 3 credit hours. (A)

#### **RNSG 2539 Health Care Concepts IV**

In-depth coverage of advanced health care concepts with nursing application through selected exemplars. Concepts include, cognition, immunity, clotting, fluid and electrolyte balance, gas exchange, metabolism, nutrition, perfusion, tissue integrity, and interpersonal relationships. Continuing development of clinical judgment with integration of all health care concepts. This course lends itself to a concept-based approach. Lab required. Prerequisites: Admission to the Nursing Program and Consent of Program Director. 5 credit hours. (W)

#### **RNSG 2563 Clinical III - Registered Nursing/Registered Nurse**

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. Additionally, this course will be a concentrated clinical learning experience to prepare the graduating student for transition from the LVN role to the role of a registered nurse. Prerequisites: RNSG 1162, RNSG 2230 and RNSG 2539. 5 credit hours. (W)

#### **RSPT 1160 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)

#### **RSPT 1201 Introduction to Respiratory Care**

An introduction to the field of respiratory care. Lab required. Prerequisite: Admission to the Respiratory Care Program. Corequisites: RSPT 1307 and RSPT 1410. Major Requirement: AAS-Respiratory Care. 2 credit hours. (W)

#### **RSPT 1207 Cardiopulmonary Anatomy and Physiology**

Anatomy and physiology of the cardiovascular and pulmonary systems. Prerequisite: Admission to the Polysomnographic Technology Program. 2 credit hours. (W)

#### **RSPT 1237 Basic Dysrhythmia Interpretation**

Study of electrophysiology of the heart and characteristics of cardiac dysrhythmias. 2 credit hours. (W)

#### **RSPT 1307 Cardiopulmonary Anatomy and Physiology**

Anatomy and physiology of the cardiovascular and pulmonary systems. Lab required. Prerequisite: Admission to the Respiratory Care Program. 3 credit hours. (W)

#### **RSPT 1361 Clinical II-Respiratory Care Therapist**

A health-related, work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1160 with a grade of "C" or better. Major Requirement: AAS - Respiratory Care. 3 credit hours. (W)

#### **RSPT 1362 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: RSPT 1361 with a grade of “C” or better. Major Requirement: AAS - Respiratory Care. 3 credit hours. (W)

#### **RSPT 1410 Respiratory Care Procedures I**

Essential knowledge of the equipment and techniques used in the treatment of cardiopulmonary disease. Lab required. Prerequisite: Admission to the Respiratory Care Program. Major Requirement: AAS-Respiratory Care. 4 credit hours. (W)

#### **RSPT 1411 Respiratory Care Procedures II**

Develops essential knowledge and skills of airway care and mechanical ventilation. Lab required. Prerequisite: RSPT 1410 with a grade of “C” or better. Major Requirement: AAS - Respiratory Care. 4 credit hours. (W)

#### **RSPT 2130 Respiratory Care Examination Preparation**

Comprehensive review to optimize respiratory care credentialing exam success. Lab required. Prerequisites: RSPT 2255, RSPT 2353, and RSPT 2360; all with a grade of “C” or better. Corequisites: RSPT 2139, RSPT 2147, RSPT 2231, and RSPT 2361. Major Requirement: AAS - Respiratory Care. 1 credit hour. (W)

#### **RSPT 2139 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 based on American Heart Association standards. Prerequisites: RSPT 2255, RSPT 2353 and RSPT 2360; all with a grade of “C” or better. Corequisites: RSPT 2130, RSPT 2147, RSPT 2231 and RSPT 2361. Major Requirement: AAS - Respiratory Care. 1 credit hour. (W)

#### **RSPT 2147 Specialties in Respiratory Care**

Emerging and specialty practices in respiratory care. Additionally, this is 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 electroencephalographs. Also includes home care/rehabilitation, and fluid and electrolyte balance. Lab required. Prerequisites: RSPT 2255, RSPT 2353 and RSPT 2360; all with a grade of “C” or better. Major Requirement: AAS - Respiratory Care. 1 credit hour. (W)

#### **RSPT 2217 Respiratory Care Pharmacology**

A study of drugs that affect cardiopulmonary systems. Emphasis on classification, route of administration, dosages/calculations, and physiological interactions. Prerequisites: RSPT 1160, RSPT 1201, RSPT 1307 and RSPT 1410; all with a grade of “C” or better. Corequisites: RSPT 1361, RSPT 1411 and RSPT 2310. Major Requirement: AAS - Respiratory Care. 2 credit hours. (W)

#### **RSPT 2231 Simulations in Respiratory Care**

Theory of clinical simulation examinations. Includes construction types, scoring, and mechanics of taking the computerized simulation examination. Prerequisite: RSPT 2255 with a grade of “C” or better. Major Requirement: AAS - Respiratory Care. 2 credit hours. (W)

#### **RSPT 2255 Critical Care Monitoring**

Advanced monitoring techniques used to assess a patient in the critical care setting. Lab required. Prerequisites: RSPT 1362 and RSPT 2471; both with a grade of “C” or better. Corequisites: RSPT 2353 and RSPT 2360. Major Requirement: AAS - Respiratory Care. 2 credit hours. (W)

#### **RSPT 2310 Cardiopulmonary Disease**

Etiology, pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. Lab required. Prerequisites: RSPT 1160, RSPT 1201, RSPT 1307 and RSPT 1410; all with a grade of “C” or better. Corequisites: RSPT 1361 and RSPT 1411. Major Requirement: AAS - Respiratory Care. 3 credit hours. (W)

#### **RSPT 2353 Neonatal/Pediatric Cardiopulmonary Care**

A study of neonatal and pediatric cardiopulmonary care. Lab required. Prerequisites: RSPT 1362 and RSPT 2471; both with a grade of “C” or better. Corequisites: RSPT 2255 and RSPT 2360. Major Requirement: AAS - Respiratory Care. 3 credit hours. (W)

#### **RSPT 2360 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: RSPT 1362 with a grade of “C” or better. Major Requirement: AAS - Respiratory Care. 3 credit hours. (W)

#### **RSPT 2361 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: RSPT

2360 with a grade of “C” or better. Major Requirement: AAS - Respiratory Care. 3 credit hours. (W)

### **RSPT 2471 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: RSPT 1411 with a grade of “C” or better. Corequisite: RSPT 1362. Major Requirement: AAS - Respiratory Care. 4 credit hours. (W)

### **RSTO 1301 Beverage Management**

A study of the beverage service of the hospitality industry including spirits, wines, beers, and non-alcoholic beverages. Topics include purchasing, resource control, legislation, marketing, physical plant requirements, staffing, service, and the selection of wines to enhance foods. Prerequisite / Concurrent Enrollment: HAMG 1321. 3 credit hours. (W)

### **RSTO 1304 Dining Room Service**

Introduces the principles, concepts, and systems of professional table service. Topics include dining room organization, scheduling, and management of food service personnel. Lab required. Prerequisite/Concurrent enrollment: CHEF 1314. 3 credit hours. (W)

Note: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.

### **RSTO 1325 Purchasing for Hospitality Operations**

Study of purchasing and inventory management of foods and other supplies to include development of purchase specifications, determination of order quantities, formal and informal price comparisons, proper receiving procedures, storage management, and issue procedures. Emphasis on product cost analysis, yields, pricing formulas, controls, and record keeping at each stage of the purchasing cycle. Lab required. Prerequisites / Concurrent Enrollment: CHEF 1305 and HAMG 1321. 3 credit hours. (W)

### **RSTO 1364 Practicum (or Field Experience) - Restaurant, Culinary, and Catering**

### **Management/Manager**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite / Concurrent Enrollment: RSTO 1325. 3 credit hours. (W)

### **RSTO 2307 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. Prerequisite / Concurrent Enrollment: HAMG 2301 or consent of Associate Dean. 3 credit hours. (W)

### **RTVB 1329 Scriptwriting**

Writing scripts for film and electronic media. Emphasizes format and style for commercials, public service announcements, promos, news, and documentaries. Lab required. 3 credit hours. (W)

### **RTVB 2330 Film and Video Editing**

Digital media editing for the preparation and completion of shorts, trailers, documentaries, and features. Prerequisite: ARTV 1351. Lab required. 3 credit hours. (W)

### **RTVB 2340 Portfolio Development**

Preparation and presentation of a portfolio suitable for employment in the media industry. This course is intended to be taken in the last semester. Lab required. Prerequisite: Consent of Associate Dean. 3 credit hours. (W)

### **RTVB 2347 Electronic Media Business Management**

Analysis of management principles and development of business plans for media enterprises. Lab required. 3 credit hours. (W)

### **RUSS 1411 Beginning Russian I**

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Russian culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, computer software, and video cassettes. Lab required. 4 credit hours. (A)

### **RUSS 1412 Beginning Russian II**

Continuation of RUSS 1411. Lab required. Prerequisite: RUSS 1411 or consent of Associate Dean. 4 credit hours. (A)

### **RUSS 2311 Intermediate Russian I**

Intensive review of Russian grammar followed by continued development of speaking, listening, reading and writing skills. Instruction enhanced by slides, tapes,

and other audio-visual aids. Prerequisite: RUSS 1412 or consent of Associate Dean. 3 credit hours. (A)

### **RUSS 2312 Intermediate Russian II**

Continuation of RUSS 2311. Instruction enhanced by slides, tapes, and other audio-visual aids. Prerequisite: RUSS 2311 or consent of Associate Dean. 3 credit hours. (A)

### **SGNL 1401 Beginning American Sign Language 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)

### **SGNL 1402 Beginning American Sign Language II**

Study of sign vocabulary, numbers, fingerspelling and Deaf culture. Emphasizes further development of receptive skills, expressive skills, application of rudimentary syntactical and grammatical structures, and an understanding of Deaf and Hearing cultures. Class is conducted primarily without voice. Lab required. Prerequisite: SGNL 1401 or credit by exam. 4 credit hours. (A)

### **SGNL 2301 Intermediate American Sign Language I**

Introduction to the intermediate skills needed in the production and comprehension of American Sign Language used in everyday communication. The course gives students an overview of the history, values, and social norms of the Deaf community in the United States. This course integrates and refines expressive and receptive skills in American Sign Language, including recognition of sociolinguistic variations. Class is conducted primarily without voice. Lab required. Prerequisite: SGNL 1402 with a grade of "C" or better. 3 credit hours. (A)

### **SGNL 2302 Intermediate American Sign Language II**

A continuation of SGNL 2301, American Sign Language Intermediate II provides a review and application of conversational skills in American Sign Language and provides intensive practice in interpreting from signing to voice as well as from voice to signing, while increasing vocabulary. The course provides an introduction to American Sign Language literature and folklore. (The course includes grammar and vocabularies used in "real life" situations.) Lab required. Prerequisite: SGNL 2301 with a grade of "C" or better. 3 credit hours. (A)

### **SLNG 1207 Intra-lingual Skills Development for Interpreters**

Development of intra-lingual (English to English) skills necessary for future development of inter-lingual (English to American Sign Language [ASL]/ASL to English) skills. Focus on linguistic and cognitive skills development in areas of paraphrasing, summarizing, main idea identification, comprehension, memory, delayed repetition, multi-tasking, vocabulary, and cultural literacy. Lab required. Offered spring semester only. 2 credit hours. (W)

### **SLNG 1211 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. Lab required. Prerequisite: SGNL 1402. 2 credit hours. (W)

### **SLNG 1215 Visual/Gestural Communication**

Development of skills in non-verbal communications. Emphasizes the use and understanding of facial expression, gestures, pantomime, and body language. Lab required. Offered fall semester only. 2 credit hours. (W)

### **SLNG 1291 Special Topics in Sign Language Interpreter**

Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Offered summer semester only. 2 credit hours. (W)

### **Preparation for BEI (Board of Evaluation of Interpreters) Certification**

Overview of BEI assessment and development of relevant ASL and interpreting skills and knowledge. Prerequisites: SLNG 2186 and SLNG 2302.

### **SLNG 1321 Introduction to the Interpreting Profession**

An overview of the field of American Sign Language (ASL)/English interpretation. Provides a historical framework for the current principles, ethics, roles, responsibilities, and standard practices of the interpreting profession. Lab required. Prerequisite / Concurrent enrollment: SGNL 2301. 3 credit hours. (W)

### **SLNG 1347 Deaf Culture**

Historical and contemporary perspective of American Deaf culture using a socio-cultural model. Includes cultural identity and awareness, values, group norms,

communication, language, and significant contributions made by D/deaf people to the world. 3 credit hours. (W)

### **SLNG 1350 Sign-to-Voice**

Skill development in interpreting and transliterating from American Sign Language and other modes of communication to English and analysis of increasingly complex tasks utilizing simulated interpreting experiences including skills analysis and peer evaluation. Lab required. Prerequisite: SLNG 1321. Offered fall semester only. 3 credit hours. (W)

### **SLNG 2186 Internship I - Sign Language Interpretation and Translation**

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. Prerequisites: SLNG 1350 and SLNG 2301. 1 credit hour. (W)

### **SLNG 2189 ESC Internship - Sign Language Interpretation and Translation**

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/ Concurrent enrollment: SLNG 2371. 1 credit hour. (W)

### **SLNG 2301 Interpreting I**

An overview of the interpreting process and models of interpretation. Introduces the skills necessary to achieve dynamic message equivalence in interpreting American Sign Language (ASL) to English and English to ASL. Lab required. Prerequisite: SLNG 1321. Offered fall semester only. 3 credit hours. (W)

### **SLNG 2302 Interpreting II**

Continued development of discourse analysis and interpreting skills for increasingly complex tasks. Utilization of consecutive and simultaneous interpreting scenarios including monologues and dialogues. Emphasizes skill development, self-analysis, and peer evaluation. Lab required. Prerequisite/Concurrent enrollment: SLNG 2301. Offered spring semester only. 3 credit hours. (W)

### **SLNG 2303 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. Prerequisite: SLNG 2301. Offered spring semester only. 3 credit hours. (W)

### **SLNG 2311 Interpreting in Specialized Settings**

Overview of interpreting/transliterating with special

populations (e.g., deaf/blind, high visual, oral) and/or special settings (e.g., religious, artistic, medical, legal, mental health). Reinforce interpreting theories and techniques in relation to special population(s) and/or setting(s). Lab required. Prerequisites: SLNG 1350 and SLNG 2301. Offered spring semester only. 3 credit hours. (W)

### **SLNG 2331 Interpreting III**

A practice-oriented course to develop skills in the integration and application of interpreting using complex source materials. Continued exposure to simulated interpreting/transliterating experiences. Lab required. Prerequisite: SLNG 2302 or state or national interpreter certification. Offered summer semester only. 3 credit hours. (W)

### **SLNG 2371 Interpreting in the Medical Setting**

Methods and practice of interpreting skills (consecutive, simultaneous, and sign translation) in medical contexts, including protocols for managing sessions with patients, standards of practice for health care interpreters, roles of the health care interpreters, cultural awareness, legislation and regulations (ADA, Section 405 or Rehabilitation Act, Title VI of Civil Rights Act, HIPAA, HITECH, CLAS), legal status (voluntary, POEC, OPC) common specialties and medications (including physical and mental health), and routine medical equipment. Lab required. Prerequisite: HITT 1305. 3 credit hours. (W)

### **SLNG 2387 Internship II - Sign Language Interpretation and Translation**

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. Prerequisites: SLNG 2302 and SLNG 2303. 3 credit hours. (W)

### **SMFT 1343 Semiconductor Manufacturing Technology**

A study of the processes, materials, and equipment used in the manufacturing of semiconductors, including an overview of the semiconductor industry, related terminology, and standard safety practice. Lab required. 3 credit hours. (W)

### **SMFT 1371 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: MATH 1314 or consent of Associate Dean. 3 credit hours. (W)

**SMFT 1373 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: MATH 1314 or consent of Associate Dean. 3 credit hours. (W)

**SMFT 1375 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: SMFT 1371 and SMFT 1373 or consent of Associate Dean. 3 credit hours. (W)

**SOCI 1301 Introduction to Sociology**

The scientific study of human society, including ways in which groups, social institutions, and individuals affect each other. Causes of social stability and social change are explored through the application of various theoretical perspectives, key concepts, and related research methods of sociology. Analysis of social issues in their institutional context may include topics such as social stratification, gender, race/ethnicity, and deviance. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**SOCI 1306 Social Problems**

Application of sociological principles and theoretical perspectives to major social problems in contemporary society such as inequality, crime and violence, substance abuse, environmental issues, deviance, or family problems. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**SOCI 2301 Marriage & the Family**

Sociological and theoretical analysis of the structures and functions of the family, the varied cultural patterns of the American family, and the relationships that exist among

the individuals within the family, as well as the relationships that exist between the family and other institutions in society. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**SOCI 2306 Human Sexuality**

This course will provide an overview of the broad field of human sexuality. Topics will be covered from various perspectives - biological, sociological, anthropological, etc., but will focus primarily on the psychological perspective. The goal is for each student to learn factual, scientifically-based information that will provoke thought and contribute to his/her decision-making on sexual issues outside of the classroom. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)  
Note: Student may take either PSYC 2306 or SOCI 2306 but not both.

**SOCI 2319 Minority Studies**

This course studies minority-majority group relations, addressing their historical, cultural, social, economic, and institutional development in the United States. Both sociological and social psychological levels of analysis will be employed to discuss issues including experiences of minority groups within the context of their cultural heritage and tradition, as well as that of the dominant culture. Core concepts to be examined include (but are not limited to) social inequality, dominance / subordination, prejudice, and discrimination. Particular minority groups discussed may include those based on poverty, race / ethnicity, gender, sexual orientation, age, disability, or religion. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**SOCI 2340 Drug Use and Abuse**

Study of the use and abuse of drugs in today's society. Emphasis on the physiological, psychological, and sociological factors that contribute to this behavior. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**SOCI 2389 Academic Co-op Sociology**

Integrates on-campus study with practical hands-on work experience in sociology. In conjunction with class seminars, the student will set specific goals and objectives in the study of sociology. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Associate Dean, and meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

**SOCW 2361 Introduction to Social Work**

An overview of the history, fields, skills, and values of

social work practice in the United States. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **SOCW 2362 Social Welfare**

This course provides an overview of contemporary social welfare including income support services, mental health services and services for children and families. It includes an examination of social welfare policy and programs. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. Prerequisite/Concurrent enrollment: SOCW 2361. 3 credit hours. (A)

### **SOCW 2389 Academic Cooperative**

A supervised experiential learning course designed to integrate program study with introductory exposure to the field of social work. In conjunction with individual study and/or seminars, the student will set specific goals and objectives in the study of social work and/or social institutions. The academic cooperative is not a social work skills-based practice experience, but instead, an observational volunteer experience. The course must include a minimum of 80 contact hours (48 hours in a social service setting). (SOCW 2389 is included in the Social Work Field of Study.) Lab required. Prerequisite: SOCW 2361. 3 credit hours. (A)

### **SPAN 1411 Beginning Spanish I**

Basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the beginner level. Lab required. 4 credit hours. (A)

### **SPAN 1412 Beginning Spanish II**

Continued development of basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level. Lab required. Prerequisite: SPAN 1411 or consent of Associate Dean. 4 credit hours. (A)

### **SPAN 2311 Intermediate Spanish I**

The consolidation of skills acquired at the introductory level. Further development of proficiency in listening, speaking, reading, and writing. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world. Prerequisite: SPAN 1412 or consent of Associate Dean. 3 credit hours. (A)

### **SPAN 2312 Intermediate Spanish II**

The consolidation of skills acquired at the introductory

level. Further development of proficiency in listening, speaking, reading, and writing. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world. Prerequisite: SPAN 2311 or consent of Associate Dean. 3 credit hours. (A)

### **SPAN 2313 Spanish for Native/Heritage Speakers I**

Builds upon existing oral proficiencies of heritage speakers of Spanish. Enhances proficiencies in the home-based language by developing a full range of registers including public speaking and formal written discourse. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world. Prerequisite: SPAN 1412 or consent of Associate Dean. 3 credit hours. (A)

### **SPAN 2315 Spanish for Native/Heritage Speakers II**

Builds upon existing oral proficiencies of heritage speakers of Spanish. Enhances proficiencies in the home-based language by developing a full range of registers including public speaking and formal written discourse. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world. Prerequisite: SPAN 2313 or consent of Associate Dean. 3 credit hours. (A)

### **SPCH 1311 Introduction to Speech Communication**

Introduces basic human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **SPCH 1315 Public Speaking**

Application of communication theory and practice to the public speaking context, with emphasis on audience analysis, speaker delivery, ethics of communication, cultural diversity, and speech organizational techniques to develop students' speaking abilities, as well as ability to effectively evaluate oral presentations. Additionally, it includes student evaluation of speakers and speeches. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **SPCH 1318 Interpersonal Communication**

Application of communication theory to interpersonal relationship development, maintenance, and termination in relationship contexts including friendships, romantic partners, families, and relationships with co-workers and supervisors. Additionally, this course focuses on interpersonal contexts such as gender communication, conflict, intercultural communication, and listening. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **SPCH 1321 Business and Professional Communication**

Study and application of communication within the business and professional context. Special emphasis will be given to communication competencies in presentations, dyads, teams, and technologically mediated formats. Additionally, it includes the relationship of communication to organizational conflict, management and international business; practice in conducting and participating in business interviews and presentations. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **SPCH 2335 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)

### **SPCH 2389 Academic Co-op Speech**

Integrates on-campus study with practical hands-on work experience in speech. In conjunction with class seminars, the student will set specific goals and objectives in the study of speech. Contact the Cooperative Work Experience Office. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours. (A)

### **SRGT 1171 Transition to Practice for the Surgical Technologist**

This course provides surgical technology students with information and skills to assist in transition from the role of student to the role of a practicing surgical technologist. Information gained about high performance work teams is applied to the surgical setting. Service quality management and diversity concepts are applied to surgical settings. Lab required. Prerequisites: HPRS 2300, SRGT 1441 and SRGT 1461. Corequisites: SRGT 2130 and SRGT 2561, or consent of Program Director. Major Requirement: AAS - Surgical Technology. 1 credit hour. (W)

### **SRGT 1271 Basic Skills of Surgical Technology**

Formerly SRGT 1260 Learn the fundamentals and foundations of Surgical Technology; Apply basic skills of Surgical Technology in a mock laboratory environment in order to gain the skills needed to perform in the healthcare setting. Prerequisite: Admission to the Surgical Technology Program. Corequisite: SRGT 1409, or consent of Program Director. Major Requirement: AAS - Surgical Technology. 2 credit hours. (W)

### **SRGT 1409 Fundamentals of Peri-operative Concepts and Techniques**

In-depth coverage of peri-operative concepts such as aseptic principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field. Lab required. Prerequisite: Admission to the Surgical Technology Program. Corequisite: SRGT 1271, or consent of Program Director. Major Requirement: AAS - Surgical Technology. 4 credit hours. (W)

### **SRGT 1441 Surgical Procedures I**

Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, otorhinolaryngology, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Lab required. Prerequisites: SRGT 1271 and SRGT 1409. Corequisites: HPRS 2300 and SRGT 1461, or consent of Program Director. Major Requirement: AAS -Surgical Technology. 4 credit hours. (W)

### **SRGT 1442 Surgical Procedures II**

Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the cardiothoracic, peripheral vascular, plastic / reconstructive, ophthalmology, oral / maxillofacial, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Lab required. Prerequisites: HPRS 2300, SRGT 1441, and SRGT 1461. Corequisites: SRGT 1171, SRGT 2130 and SRGT 2561, or consent of Program Director. Major Requirement: AAS -Surgical Technology. 4 credit hours. (W)

### **SRGT 1461 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. Additionally, the student is allowed to participate as a member of the surgical team under the supervision of the affiliate hospital staff or a clinical instructor in an aseptic environment. Case assignments will be assigned according to specific clinical rotations. Prerequisites: SRGT 1271 and SRGT 1409. Corequisites: HPRS 2300 and SRGT 1441, or consent of Program Director. Major Requirement: AAS -Surgical Technology. 4 credit hours. (W)

### **SRGT 2130 Professional Readiness**

Overview of professional readiness for employment, attaining certification, and maintaining certification status. Prerequisites: HPRS 2300, SRGT 1441 and SRGT 1461.



Corequisites: SRGT 1171, SRGT 1442, and SRGT 2561, or consent of Program Director. Major Requirement: AAS -Surgical Technology. 1 credit hour. (W)

### **SRGT 2561 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: HPRS 2300, SRGT 1441 and SRGT 1461. Corequisites: SRGT 1171, SRGT 1442 and SRGT 2130, or consent of Program Director. Major Requirement: AAS -Surgical Technology. 5 credit hours (W)

### **SUAS 1371 Small Unmanned Aerial Systems (Drones)**

This course is an introduction to Small Unmanned Aerial Systems (SUAS), commonly called drones. The course will cover the uses of drones, the electronic and mechanical systems used by drones, FAA regulations related to drones, and drone flight with applications. Lab required. Prerequisite: Meet TSI college-readiness standard for Mathematics; or equivalent. 3 credit hours. (W)

### **TECA 1303 Families, School and Community**

A study of the child, family, community, and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. The course includes a minimum of 16 hours of field experiences. Lab required. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)

### **TECA 1311 Educating Young Children**

An introduction to the education of the young child, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities and current issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of

settings with varied and diverse populations; and the course includes a minimum of 16 hours of field experiences. Lab required. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)

### **TECA 1318 Wellness of the Young Child**

A study of the factors that impact the well-being of the young child including healthy behavior, food nutrition, fitness, and safety practices. Focus on local and national standards and legal implications of relevant policies and regulations. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth to age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. Course includes a minimum of 16 hours of field experiences. Lab required. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)

### **TECA 1354 Child Growth and Development**

A study of the physical, emotional, social, language, and cognitive factors impacting growth and development of children through adolescence. Prerequisite: Meet TSI standard for INRW 0315; or equivalent. 3 credit hours. (A)

### **TECM 1343 Technical Algebra and Trigonometry**

Algebraic and trigonometric applications used in technical/industrial settings. Lab required. 3 credit hours. (W)

### **TRVM 1327 Special Events Design**

The development of a special event from the conceptual stage through completion. Emphasis on industry terminology, factors to consider when planning a special event, and contingency plans. 3 credit hours. (W)

### **TRVM 1366 Practicum (or Field Experience) - Tourism and Travel Services Management**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite / Concurrent Enrollment: TRVM 2301. 3 credit hours. (W)

### **TRVM 2301 Introduction to Convention/Meeting Management**

Overview of the meetings and convention industry and the various aspects and skills involved in planning and managing meeting, conventions, and expositions. Emphasis on types of meetings, markets, industry

suppliers, budget and program planning, site selection and contract negotiations, registration and housing, food and beverage requirements, function and meeting room setup, and audiovisual requirements. 3 credit hours. (W)

**TRVM 2341 International Convention / Meeting Management**

Apply the principles of convention / meeting management in an international setting. Compare the differences in planning a domestic versus an international meeting; including contract negotiation, foreign currency, customs and laws, exposition, marketing, shipping, languages, cultures, and how foreign policy affects the meeting planning process. Identify resources to assist planner in development of an international meeting. Prerequisite / Concurrent Enrollment: TRVM 2301. 3 credit hours. (W)

**TRVM 2355 Exposition and Trade Show Operations**

An overview of trade shows and exhibitions operations. Prerequisite / Concurrent Enrollment: TRVM 2301. 3 credit hours. (W)

**TRVM 2380 Cooperative Education-Tourism and Travel Services Management**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisites: HAMG 1324, HAMG 1340, TRVM 1327, TRVM 2301, TRVM 2341 and TRVM 2355; or consent of Associate Dean. 3 credit hours. (W)

**UXUI 1370 Human Factors and Design Psychology**

This course presents the principles of human/computer interaction. Students are expected to gain knowledge and expertise to contribute to the design process in computer-based, user-centered systems in which user and task needs are given primary importance. Students also evaluate the usability of interactive systems in fulfilling the requirements of their users. Lab required. Prerequisites: ARTC 1305, ARTC 1325, and ARTC 2371. 3 credit hours. (W)

**UXUI 1371 Prototyping and Usability Testing I**

Introduction to foundational prototyping and user testing methods for use in the design of products. Lab required. Prerequisites: ARTC 1305, ARTC 1325, and ARTC 2371. 3 credit hours. (W)

**VTHT 1105 Veterinary Medical Terminology**

Introduction to word parts, directional terminology, and analysis of veterinary terms. 1 credit hour. (W)

**VTHT 1217 Veterinary Office Management**

Practical experience in management of the veterinary practice. Emphasis on client relations, record keeping, inventory, employment skills, and computer skills in the veterinary environment. 2 credit hours. (W)

**VTHT 1245 Veterinary Radiology**

Presentation of theory and principles and practical application of radiology within the field of veterinary medicine. Lab required. Prerequisite: VTHT 1313. 2 credit hours. (W)

**VTHT 1249 Veterinary Pharmacology**

Fundamentals of pharmacology including recognition, calculation, labeling, packaging, and administration of veterinary drugs, biologics, and therapeutic agents. Discussion of normal and abnormal responses to these agents. Lab required. Prerequisite: VTHT 1313. 2 credit hours. (W)

**VTHT 1271 Veterinary Technician National Examination (VTNE) Prep Course**

Preparation for the national licensing exam. Prerequisites: VTHT 1245, VTHT 1341, VTHT 2325, and VTHT 2213. 2 credit hours. (W)

**VTHT 1280 Cooperative Education I - Veterinary/Animal Health Technology/Technician and Veterinary Assistant**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact your Workforce Program Career Coach. Prerequisite: VTHT 1341. 2 credit hours. (W)

**VTHT 1301 Introduction to Veterinary Technology**

Survey of the profession of veterinary technology with emphasis on basic techniques, handling and care of animals, and ethical and professional requirements. Lab required. 3 credit hours. (W)

**VTHT 1313 Veterinary Anatomy and Physiology**

Gross anatomy of domestic animals including physiological explanations of how each organ system functions. Lab required. 3 credit hours. (W)

**VTHT 1341 Anesthesia and Surgical Assistance**

In-depth application of surgical, obstetrical, and anesthesia techniques including identification and use of

instruments and equipment. Lab required. Prerequisites: VTHT 1249 and VTHT 2331. 3 credit hours. (W)

**VTHT 2201 Canine and Feline Clinical Management**

Survey of feeding, common management practices, and care of canines and felines in a clinical setting. Review of common diseases of canines and felines encountered in the practice of veterinary medicine. 2 credit hours. (W)

**VTHT 2205 Equine Clinical Management**

Survey of feeding, common management practices, and care of equines in a clinical setting. Review of common diseases of equines encountered in the practice of veterinary medicine. Lab required. 2 credit hours. (W)

**VTHT 2213 Lab Animal Clinical Management**

Survey of feeding, management practices, and care of laboratory animals in a clinical setting. Review of common diseases of laboratory animals encountered in the practice of veterinary medicine. Lab required. 2 credit hours. (W)

**VTHT 2280 Cooperative Education II - Veterinary/Animal Health Technology/Technician and Veterinary Assistant**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact your Workforce Program Career Coach. Prerequisites: VTHT 1280 and VTHT 1341. 2 credit hours. (W)

**VTHT 2321 Veterinary Parasitology**

Study of parasites common to domestic animals including zoonotic diseases. Lab required. 3 credit hours. (W)

**VTHT 2323 Veterinary Clinical Pathology I**

In-depth study of hematology and blood chemistries with emphasis on lab procedures. Lab required. Prerequisites: VTHT 2321 and VTHT 1313. 3 credit hours. (W)

**VTHT 2325 Large Animal Assisting Techniques**

Study of restraint, management, treatment, and medication techniques for farm animals. Lab required. Prerequisite: VTHT 1313. 3 credit hours. (W)

**VTHT 2331 Veterinary Clinical Pathology II**

In-depth study of urinalysis and cytology. Survey of microbiological techniques. Emphasis on laboratory procedures. Lab required. Prerequisite: VTHT 2323. 3 credit hours. (W)

**VTHT 2439 Veterinary Nursing Care**

Capstone course requiring integration of course work in

the field of veterinary technology. Lab required.

Prerequisite: VTHT 1341. 4 credit hours. (W)

**WLDG 1307 Introduction to Welding Using Multiple Processes**

Basic welding techniques using some of the following processes: Oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW), and gas tungsten arc welding (GTAW). Lab required. 3 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

**WLDG 1308 Metal Sculpture**

Techniques and methods of oxy-fuel and electric welding and cutting to produce ornamental and functional items. Skill development in material forming, welding, brazing, and finishing techniques. Includes work ethics, artistic styles, and professionalism. Lab required. Prerequisite: Consent of Associate Dean. 3 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

**WLDG 1313 Introduction to Blueprint Reading for Welders**

A study of industrial blueprints. Emphasis placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production. Lab required. Prerequisite: WLDG 1428. 3 credit hours. (W) Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

**WLDG 1317 Introduction to Layout and Fabrication**

A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction. Lab required. 3 credit hours (W) Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

**WLDG 1371 Introduction to Foundry Practices**

Fundamentals of conceptualizing and producing cast items in ferrous and non-ferrous metals. Skill development through the casting process to create

objects from different materials. Includes welding, brazing, pattern making, mold making, flask construction and casting of ferrous and non ferrous metals. Lab required. Prerequisite: Consent of Associate Dean. 3 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 1401 Metalsmithing**

Basic skill development in hand-forging steel, forge welding, scroll-forming, shaping, and joinery utilizing hammers, anvils, and coal and gas forges. Emphasis on techniques and processes to demonstrate versatility and skill. Lab required. Prerequisite: Consent of Discipline Lead. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 1405 Art Metals**

Fundamentals of producing utilitarian and ornamental items in various metals. Skills development through the techniques used in fabrication with sheet and/or stock materials including various welding and cutting processes. Lab required. Prerequisite: Consent of Discipline Lead. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 1413 Introduction to Blueprint Reading for Welders**

A study of industrial blueprints. Emphasis placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production. Lab required. Prerequisite: WLDG 1428. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 1425 Introduction to Oxy-Fuel Welding and Cutting**

An introduction to oxy-fuel welding and cutting, safety, setup and maintenance of oxy-fuel welding, and cutting equipment and supplies. Lab required. Prerequisite: Consent of Discipline Lead. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW)**

An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, and various joint designs. Additionally, instruction provided in SMAW fillet welds in various positions. Lab required. Prerequisite: Consent of Discipline Lead. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 1430 Introduction to Gas Metal Arc Welding (GMAW)**

Principles of gas metal arc welding, set-up and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools/equipment. Instruction in various joint designs. Additionally, this is an overview of terminology, safety procedures, and equipment set-up. Practice in performing T-joints, lap joints, and butt joints using Flux Cored Arc Welding (FCAW) equipment. Lab required. Prerequisite: Consent of Director. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 1434 Introduction to Gas Tungsten Arc (GTAW) Welding**

Principles of gas tungsten arc welding (GTAW), including set-up, GTAW equipment. Instruction in various positions and joint designs. Lab required. Prerequisite: Consent of Discipline Lead. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 1435 Introduction to Pipe Welding**

An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on various welding positions and electrodes. Lab required. Prerequisite: Consent of Discipline Lead. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds

repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

### **WLDG 1530 Introduction to Gas Metal Arc Welding (GMAW)**

Principles of gas metal arc welding, setup and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools/equipment. Instruction in various joint designs. Additionally, this is an overview of terminology, safety procedures, and equipment setup. Practice in performing T-joints, lap joints, and butt joints using Flux Cored Arc Welding (FCAW) equipment. Lab required. Prerequisite: Consent of Discipline Lead. 5 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

### **WLDG 2413 Intermediate Welding Using Multiple Processes**

Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW). Lab required.

Prerequisites: WLDG 2443, WLDG 2453, and WLDG 2450 or WLDG 2451. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

### **WLDG 2431 Advanced Blueprint Interpretation and Cost Analysis**

A continuation of the Blueprint for Welders course.

Emphasis placed on inspection, cost analysis, and estimating. Lab required. Prerequisite: WLDG 1413. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

### **WLDG 2435 Advanced Layout and Fabrication**

An advanced course in layout and fabrication. Includes production and fabrication of layout, tools, and processes. Emphasis on application of fabrication and layout skills. Lab required. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

### **WLDG 2440 Advanced Metal Sculpture**

Project development in an open-studio atmosphere.

Individualized instruction to encourage skill combinations and experimentation. Topics include portfolio preparation and presentation. Lab required. Prerequisite: WLDG 1308. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

### **WLDG 2441 Power Hammer**

Skill development in pneumatic, treadle, and trip hammer techniques. Topics include forging various steel alloys and larger stock configurations, tool making, machine care, and hardware. Projects to create functional esthetic objects using power hammers. Lab required. Prerequisite: WLDG 1401. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

### **WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW)**

Advanced topics based on accepted welding codes.

Training provided with various electrodes in shielded metal arc welding processes with open V-groove joints in various positions. Lab required. Prerequisite: WLDG 1428. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

### **WLDG 2447 Advanced Gas Metal Arc Welding (GMAW)**

Advanced topics in Gas Metal Arc Welding (GMAW).

Includes welding in various positions. Lab required.

Prerequisite: WLDG 1530. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

### **WLDG 2450 Orbital Tube Welding**

Orbital tube welding in various industries. Special emphasis on the disciplines of orbital tube welding, including cutting, facing, and development of weld procedures. Lab required. Prerequisite: WLDG 1434. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds

repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 2451 Advanced Gas Tungsten Arc Welding (GTAW)**

Advanced topics in GTAW welding, including welding in various positions and directions. Lab required.

Prerequisite: WLDG 1434. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 2453 Advanced Pipe Welding**

Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes. Lab required. Prerequisite: WLDG 1435. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 2471 Advanced Foundry Practices**

Project development in an open-studio atmosphere. Individualized instruction to encourage skill combinations and experimentation. Topics include portfolio preparation and presentation. Lab required. Prerequisite: WLDG 1371. 4 credit hours. (W)

Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

#### **WLDG 2480 Cooperative Education - Welding Technology/Welder**

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. Prerequisite: Consent of Discipline Lead. 4 credit hours. (W)

Note : Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.

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