The programs, policies, statements, fees and courses contained herein are subject to continual review and evaluation. Please refer to the college website for the latest updates. Collin College reserves the right to make changes or deletions at any time without notice. This publication is intended for information only and is not intended as a contract.
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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 the basis of race, color, religion, sex, age, national origin, disability, veteran status, or other legally protected class. 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. Linda Qualia, the Student ADA/504 Coordinator, can be located at the Plano Campus (Spring Creek), Room D136; 972.881.5779.

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 at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404.679.4500 for questions about the accreditation of Collin County Community College District. Note: The Commission is to be contacted only if there is evidence that appears to support the institution’s significant non-compliance with a requirement or standard.

ACCREDITING BODIES
Accreditation Commission for Education in Nursing (ACEN); 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 map of campuses, visit
http://www.collin.edu/campuses

Allen Center (AL)
Allen High School
300 Rivercrest Blvd.
Allen, Texas 75002
972.377.1060

McKinney Campus (Central Park)
2200 W. University Drive
McKinney, Texas 75071
972.548.6790

Collin Higher Education Center (CHEC)
3452 Spur 399
McKinney, Texas 75069
972.599.3100

Courtyard Center (CYC)
4800 Preston Park Blvd.
Plano, Texas 75093
972.985.3790

Frisco Campus (Preston Ridge)
9700 Wade Blvd.
Frisco, Texas 75035
972.377.1790

Rockwall Center (RW)
2301 John King Blvd.
Rockwall, TX 75087
469.698.7499

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

Collin College Web Link Directory
http://www.collin.edu

Board of Trustees
http://www.collin.edu/leadership/board_of_trustees.html

Leadership Team
http://www.collin.edu/leadership/leadershipteam.html

Academic Administrators
http://www.collin.edu/leadership/provostsanddeans.html

Faculty
http://hb2504.collin.edu/
(course syllabi, professors’ curricula vitae)

ACCESS – Disability Support Services
http://www.collin.edu/studentresources/disabilityservices/

Athletics
http://athletics.collin.edu

Center for Scholarly and Civic Engagement
http://www.collin.edu/academics/csce

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

Fitness Centers/Intramurals
http://www.collin.edu/intramurals

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

Learning Communities
https://www.collin.edu/academics/learningcommunities/

Law Enforcement Academy
http://www.collin.edu/department/lawenforcement/

National Technical Honor Society
https://orgsync.com/95652/chapter

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

Student Organizations/Cougar Connect
https://collin.campuslabs.com/engage/

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

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

Weekend College
http://www.collin.edu/academics/weekendcollege/
# QUICK REFERENCE GUIDE

## Allen Center (AL)

**General Information** .................................. 972.377.1060

## 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 Support Center ....................................... 972.881.5870

### Library

- **Financial Aid/Veterans Affairs** ....................... 972.548.6760
- **Fitness Center** ............................................. 972.548.6891
- **Information Center** ....................................... 972.548.6790

### Student and Enrollment Services

- **Math Lab** ..................................................... 972.548.6896
- **Student Computer Lab** .................................. 972.548.6877
- **Student and Enrollment Services** ........... 972.548.6770

### Student Engagement

- **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
eLearning ........................................................ 972.881.5870

### Divisions

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

## 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
- **Registrar** ..................................................... 972.881-5707
- **Senior Vice President of Organizational and System Effectiveness** ............... 972.985.3780
- **Vice President of Administrative Services/CFO** ........ 972.758.3831
- **Vice President of Advancement** ................. 972.758.3895
- **Vice President of Student and Enrollment Services** ........ 972.599.3150
- **CHEC Four-year University Representatives** ......
  - **Texas A&M University-Commerce** .......... 972.599.3122
  - **Texas Tech University** .................. 972.599.3100
  - **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** ................................................... 972.985.3721
- **Bookstore** ..................................................... 972.985.3710
- **Career Center** ............................................... 972.599.3174
- **Collin College Police Department** .......... 972.578.5555
- **Registration** ................................................ 972.985.3790

#### 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  
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Counseling Services............................972.377.1781  
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Enrollment Services............................972.377.1638  
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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)..............972.377.1585  
Instruction Office - University Hall (U111).........972.377.1585  
Texas Success Initiative (TSI) Info.........972.348.6773  
Vice President/Provost Office...............972.377.1550  
Divisions  
Academic Affairs...............................972.377.1006  
Computer Science, Engineering Tech  
and Human Services............................469.365.1900  

Public Safety Training Center  
General Information.........................972.348.6863

Rockwall Center (RW)  
General Information.........................214.771.4573
## 2019-2020 ACADEMIC CALENDAR

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<td>Maymester Last Day to Withdraw</td>
</tr>
<tr>
<td>May 25</td>
<td>Memorial Day Holiday</td>
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<tr>
<td></td>
<td>(All Campuses Closed)</td>
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<tr>
<td>June 2</td>
<td>Maymester Final Exams</td>
</tr>
<tr>
<td>June 8</td>
<td>5 Week June (Summer I) and 10 Week Summer (Summer III) Classes Begin</td>
</tr>
<tr>
<td>June 11</td>
<td>5 Week June (Summer I) Census Date</td>
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<tr>
<td>June 16</td>
<td>10 Week Summer (Summer III) Census Date</td>
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<tr>
<td>June 23</td>
<td>5 Week June (Summer I) Last Day to Withdraw</td>
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<tr>
<td>July 3-5</td>
<td>Independence Day Holiday</td>
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<td></td>
<td>(All Campuses Closed)</td>
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<tr>
<td>July 9</td>
<td>10 Week Summer (Summer III) Last Day to Withdraw</td>
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<tr>
<td>July 9</td>
<td>5 Week Summer (Summer I) Final Exams</td>
</tr>
<tr>
<td>July 13</td>
<td>5 Week July (Summer II) Classes Begin</td>
</tr>
<tr>
<td>July 16</td>
<td>5 Week July (Summer II) Census Date</td>
</tr>
<tr>
<td>July 17</td>
<td>Required Class Day for 5 Week July (Summer II) and 10 Week Summer (Summer III) MW Classes</td>
</tr>
<tr>
<td>July 24</td>
<td>Required Class Day for 5 Week July (Summer II) and 10 Week Summer (Summer III) TR Classes</td>
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<tr>
<td>July 28</td>
<td>5 Week July (Summer II) Last Day to Withdraw</td>
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<tr>
<td>Aug. 10-11</td>
<td>10 Week Summer (Summer III) Final Exams</td>
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<tr>
<td>Aug. 11</td>
<td>5 Week July (Summer II) Final Exams</td>
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### SPRING 2020

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>Jan. 2</td>
<td>Wintermester Classes Resume</td>
</tr>
<tr>
<td>Jan. 9</td>
<td>Wintermester Final Exams</td>
</tr>
<tr>
<td>Jan. 20</td>
<td>MLK Holiday</td>
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<td></td>
<td>(All Campuses Closed)</td>
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<tr>
<td>Jan. 21</td>
<td>Spring Classes Begin</td>
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<tr>
<td>Feb. 3</td>
<td>Spring Census Date</td>
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<tr>
<td>Mar. 9-12</td>
<td>Spring Break (No Classes)</td>
</tr>
<tr>
<td>Mar. 13-15</td>
<td>Spring Break</td>
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<tr>
<td>Mar. 20</td>
<td>Spring Last Day to Withdraw</td>
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<tr>
<td>Apr 10-12</td>
<td>Spring Holiday</td>
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<td></td>
<td>(All Campuses Closed)</td>
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<tr>
<td>May 11-17</td>
<td>Spring Final Exam Week</td>
</tr>
<tr>
<td>May 15</td>
<td>Collin College 2020 Commencement @7 p.m.</td>
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</tbody>
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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 that follow. The college reserves the right to guide the placement of students through assessment, which may include interviews and a review of past academic achievement.

Registration options are enhanced and delays may be avoided by completing all admission requirements in advance of registration. In all admissions policies and practices, Collin College does not discriminate on the basis of race, color, religion, sex, national origin, age, disability or veteran status in accordance with federal law.

Official transcripts are required from all regionally accredited colleges/universities attended. Failure to provide a transcript will result in future registration at Collin 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 dental hygiene, fire academy and fire science certification, nursing, child development, polysomnographic technology, health information management, emergency medical services professions, pastry arts and culinary arts, respiratory care and surgical 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 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, armyrotc.unt.edu, or e-mail 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 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.
Complete the TSI Assessment with the Pre-Assessment Activity or provide proof of exemption/waiver.

Provide written parental/guardian permission for students under 18 years of age.

Provide proof of meningitis vaccination, if needed.

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.
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. Provide Official High School Transcript.
3. Complete the TSI Assessment with the Pre-Assessment Activity or provide proof of exemption/waiver.

International Students
Applicants on temporary visas or holding permanent residence cards may be eligible for admission. To verify residency status, applicants are required to present their visa or permanent resident card 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. 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 international students must 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:

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 and the supporting financial evidence statement. For sponsors residing inside the United States, a Letter of Guarantee dated within six (6) months of the date of the application and the supporting 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 original financial documents 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. Students who can document graduation from the Intensive English Language Institute of the University of North Texas or have completed Freshman English with a “C” or better will be exempt from the TOEFL requirement.

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 students 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 or visit the website at http://www.collin.edu/orientation.

CAMPUS SAFETY TRAINING
All entering freshmen and transfer students must complete campus safety training prior to registration. The training includes Collin College’s campus sexual assault policy. The training can be accessed in CougarWeb.

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, home school 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) parent’s 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:

   - Provide an official transcript from all regionally accredited institutions of higher education since last attending Collin College.
2. Provide proof of exemption/waiver of TSI.
   - Provide proof of meningitis vaccination, if needed.
   - 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 (1st) four (4) days of classes during regular 16-week semesters and during the first (1st) 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 (4th) 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 (1st) 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 (1st) 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-semesters varies.

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 five (5) ways:

1. Online registration: (credit card only) Go to www.collin.edu/ce to see instructions or go to the Continuing Education online registration site to view the current Continuing Education class offerings and register for classes.
2. Walk-in registration: Available at the Plano Campus (Spring Creek), McKinney Campus (Central Park), and Frisco Campus (Preston Ridge). Times are listed in the current Continuing Education Schedule.
3. Phone-in registration: (VISA, MasterCard, or Discover only) Call 972.548.6855 or 972.985.3711. Times and dates are listed in the current Continuing Education Schedule.
4. Mail-in registration: Send the student’s registration information to: Registration Collin College Courtyard Center 4800 Preston Park Blvd. Box 12 Plano, Texas 75093
5. Fax-in registration: (credit card only) Check the current Continuing Education Schedule for fax availability. Fax the student’s registration to 972.985.3723 or 972.548.1702.

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, and Plano 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;
- 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).

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/PSYC 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.

NON-TRADITIONAL COLLEGE CREDIT (NTCC)
Various credit options enable persons who have acquired knowledge and skills in non-traditional ways to demonstrate academic achievement. For enrolled students, or students enrolled within the past year, credit may be given for college-level experience as demonstrated by acceptable test results regardless of the means by which the knowledge was acquired, except for college credit that has been previously granted. Students may also receive credit for some previous military training. Please note that a fee for test administration and transcript recording may be assessed.

Non-traditional credit will be added to the transcript (upon request) only after six hours of traditional, non-transfer credit is achieved at Collin College. 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.

For additional information regarding the College-Level Examination Program (CLEP), departmental examinations, Advanced Placement (AP), International Baccalaureate (IB) or Armed Forces credit, contact the Director of Testing or the Registrar’s Office.

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

AP Examination
Collin College Equivalent
Art/Drawing I – ARTS 1316
Art General (2-D or 3-D) – ARTS 1311
Art History – ARTS 1303
Biology – BIOL 1406 and 1407
Calculus (AB) – MATH 2413
Calculus (BC) – MATH 2413 (Score of 3)
   MATH 2413 and 2414 (Score of 4 or 5)
Chemistry – CHEM 1411 and 1412
Computer Science (A) – COSC 1436
Economics (Macro) – ECON 2301
Economics (Micro) – ECON 2302
English Language and Composition –
   ENGL 1301 (score of 3)
   ENGL 1301 and 1302 (score of 4 or 5)
English Literature and Composition –
   ENGL 1301 (score of 3)
   ENGL 1301 and 1302 (score of 4 or 5)
Environmental Science I – ENVR 1401
European History – HIST 2311 and 2312
French Language – FREN 1411 and 1412
German Language – GERM 1411 and 1412
Government – GOVT 2305
Human Geography—GEOG 1302
Music Appreciation – MUSI 1306
Music Theory – MUSI 1311
Physics 1 – PHYS 1401
Physics 2 – PHYS 1402
Physics C – Mechanics PHYS 2425
Physics C – Electrical and Magnetic PHYS 2426
Psychology – PSYC 2301
Spanish Language – SPAN 1411 and 1412
Statistics – MATH 1342
U.S. History – HIST 1301 and 1302
World History – HIST 2311 and 2312

**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 evaluate 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).

**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:

1. CLEP credit shall be recorded on transcripts with a “CR” in order to be clearly recognized as credit earned by examination.
2. Collin College will not replace an existing grade with CLEP credit, including a grade of “W.” Please note: a course must be dropped before census date to avoid a “W” grade.
3. Credit is awarded for CLEP Subject Examination scores at or above the 70th percentile. See the Collin website or contact the Director of Testing for specific passing scores. Official score reports should be sent to the Director of Testing. The college code for Collin College is 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.

**CREDIT BY EXAM (DEPARTMENTAL EXAMS)**
Credit for some courses may be granted upon successful completion of a comprehensive examination over the content of the course. A nonrefundable fee is charged for each course examination. Students must be currently enrolled or enrolled within the past year and have earned at least six credit hours at Collin College to receive credit by examination.

Credit by exam may be attempted only once for any given course. Students currently enrolled in the course they wish to test out of must test or withdraw prior to the census date of the enrolled semester. The student must score at or above the 70th percentile to receive credit for the course.

**CREDIT FOR PRIOR LEARNING THROUGH CONTINUING EDUCATION**
Students who have taken 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:

1. The CE courses were completed within the past 12 months.
2. Successful completion of the same end-of-course final assessment as the credit students.
3. The course was not repeated more than once.
4. A non-refundable fee will be assessed for each course that is transcripted.

A maximum of 50 percent of the courses required for the industry certification/license and taken as CE courses can be applied toward a credit certificate or degree. Non-traditional credit will be added to the transcript only after six hours of traditional, non-transfer credit is achieved at Collin College. A minimum of 25% of the semester credit hours required for a degree or certificate must be earned at Collin College.

**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 up to 24 hours course-specific college credit in subject appropriate areas on all IB exam scores of 4 or above, with an IB diploma or up to 18 hours with an IB certificate. Student must have an official IB transcript sent to Collin College.

**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 competency assessment.
The requirements to receive college credit are:

1. Earn a passing grade* on the end-of-course competency based assessment in high school.
2. Earn six non-developmental Collin College education credits and submit the petition for articulated credit within 12 months of high school graduation to a special admissions coordinator.
3. 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 credits that a student is qualified for will be applied to the college transcript at the end of the college grading cycle. Credit will only be given for college level coursework, no developmental education levels will be awarded. 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.
FINANCIAL POLICIES AND PROCEDURES

TUITION AND FEE 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/.

All Collin College tuition and fees, both course and/or service related, must be approved by Collin’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.

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.

STUDENT FINANCIAL RESPONSIBILITY
Registration in any course or acceptance of any service from Collin College creates a student responsibility 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 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 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’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.

PAYMENT REQUIREMENTS

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.

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 may be dropped from all classes after 8 p.m. on the early registration payment deadline. 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 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 (DNP) 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 monthly 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 email is Collin College’s 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/.

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 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.

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 not to have his or her 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.

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 Campus and Plano Campus. 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 four (4) to seven (7) business days after the term 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.

For students not able to pay the full amount due by the early registration payment deadline, formal 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 in the same term.

8. 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.

9. 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 each term to authorize use of veterans’ benefits.

10. 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 the student’s tuition and fee charges at Collin College may be paid through Flywire, and payment 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.

11. 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.

12. 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.

Partnering with the State of Texas to ensure affordability of higher education for all students, Collin 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/tuitionwaiveextraexemptionsrebate.html. Note: this list is provided as a reference only and is
subject to change or update by law, rule, and/or Board approval.

Eligible students should contact the responsible Collin College office to determine required documentation to
prove eligibility. Proof of exemption and waiver eligibility must be provided in compliance with payment deadline
requirements for each term of attendance at Collin College.

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, not the first (1st) day of an individual’s class. As of
12:01 a.m. on the first (1st) day of the term session, refunds
assessed for dropped or withdrawn courses will be reduced
to 70 percent and then gradually down to zero (0) percent,
per the THECB refund rules shown below.

<table>
<thead>
<tr>
<th>THECB Refund Rules for Credit Course</th>
<th>Drop/Withdrawal Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Length (# of Weeks)</td>
<td>100%</td>
</tr>
<tr>
<td>Prior to Class Day</td>
<td>1</td>
</tr>
<tr>
<td>Thru Class Day</td>
<td></td>
</tr>
<tr>
<td>As of Class Day</td>
<td></td>
</tr>
<tr>
<td>16 OR MORE</td>
<td>1</td>
</tr>
<tr>
<td>15 WEEKS</td>
<td></td>
</tr>
<tr>
<td>14 WEEKS</td>
<td>1</td>
</tr>
<tr>
<td>13 WEEKS</td>
<td></td>
</tr>
<tr>
<td>12 WEEKS</td>
<td>1</td>
</tr>
<tr>
<td>11 WEEKS</td>
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</tr>
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<td>10 WEEKS</td>
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<td>7 WEEKS</td>
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<td>5 WEEKS</td>
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<td>4 WEEKS</td>
<td>1</td>
</tr>
<tr>
<td>3 WEEKS</td>
<td></td>
</tr>
<tr>
<td>2 OR LESS</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Sunday is only counted if it is the first (1st) day of the
course. 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.

For some unforeseen medical emergency and/or death in
the immediate family situations, Collin College may
authorize an exception to the refund policy with a credit for
tuition and/or fee charges. For detailed criteria and
submission instructions for a credit term exception petition,
refer to the Out of Policy Refund Petition Form located at
www.collin.edu/bursar/Refund_Petition.pdf. For CE
students, the Petition for Refund Form is available online at

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 and/or adjustments to financial aid awards and/or amounts not covered under an approved and eligible third (3rd) party funding agreement. If a student’s account is referred to a third (3rd) party for collection, a collection fee will be assessed and will be due in full at the time of the referral to the third (3rd) party. 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:

1. 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;

2. 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 year, including an amount up to $200 for educationally related expenses incurred in a prior financial aid award year;

3. 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);

4. 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

5. 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 payment 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.

Cost Per Credit Hour Example *

<table>
<thead>
<tr>
<th>Cost Per Credit Hour Example*</th>
<th>In-County</th>
<th>In-State, Out-of-County</th>
<th>Out-of-State/Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per Hour</td>
<td>$52</td>
<td>$98</td>
<td>$165</td>
</tr>
<tr>
<td>Tuition</td>
<td>$2</td>
<td>$2</td>
<td>$2</td>
</tr>
<tr>
<td>Student Life/Activity Fee</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Per hour charges</td>
<td>$54</td>
<td>$100</td>
<td>$167</td>
</tr>
</tbody>
</table>

Tuition and Fee Schedule *

As of Fall 2019, Course Per Hour Tuition/Fee Quick Guide*

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>In-country**</th>
<th>Out-of-country**</th>
<th>Out-of-state/country**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$ 54.00</td>
<td>$ 100.00</td>
<td>$ 202.00**</td>
</tr>
<tr>
<td>2</td>
<td>$108.00</td>
<td>$ 200.00</td>
<td>$ 334.00</td>
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<td>$162.00</td>
<td>$ 300.00</td>
<td>$ 501.00</td>
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<tr>
<td>4</td>
<td>$216.00</td>
<td>$ 400.00</td>
<td>$ 668.00</td>
</tr>
<tr>
<td>5</td>
<td>$270.00</td>
<td>$ 500.00</td>
<td>$ 835.00</td>
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<tr>
<td>6</td>
<td>$324.00</td>
<td>$ 600.00</td>
<td>$1,002.00</td>
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<tr>
<td>7</td>
<td>$378.00</td>
<td>$ 700.00</td>
<td>$1,169.00</td>
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<tr>
<td>8</td>
<td>$432.00</td>
<td>$ 800.00</td>
<td>$1,336.00</td>
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<tr>
<td>9</td>
<td>$486.00</td>
<td>$ 900.00</td>
<td>$1,503.00</td>
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<tr>
<td>10</td>
<td>$540.00</td>
<td>$1,000.00</td>
<td>$1,670.00</td>
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<tr>
<td>11</td>
<td>$594.00</td>
<td>$1,100.00</td>
<td>$1,837.00</td>
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<tr>
<td>12</td>
<td>$648.00</td>
<td>$1,200.00</td>
<td>$2,004.00</td>
</tr>
</tbody>
</table>

*Tuition rates are subject to change by the Collin Board of Trustees.  
** $2 Student record fee not included in above fees  
***Includes the $200 minimum required by law.
The above rates do not include the $50 per credit cost for courses not eligible for state funding, such as three-time repeat courses, excess hour courses, and special university level math courses.

Effective Fall 2019, Collin’s Board approved tuition and fee charges for developmental education non-course competency-based options (NCBO), which are offered on a contact hour rather than a credit hour basis. NCBO course tuition and fees will be assessed using a standard 16 contact hour to one credit hour conversion, residency rates considered, and may result in percentage tuition and fee charges of less than an one-hour equivalency.

**FEES**

Other fees are applied as required regardless of residency.

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit Fee</td>
<td>$25 per course (non-refundable) in addition to tuition and other fees</td>
</tr>
<tr>
<td>Credit Card Charge Back Fee</td>
<td>$25 (non-refundable) per charge back transaction</td>
</tr>
<tr>
<td>Immunization Records Management Fee</td>
<td>$30 (non-refundable) for designated Nursing and Health Science programs.</td>
</tr>
<tr>
<td>Installment Plan Late Fee</td>
<td>$25 (non-refundable) per late payment</td>
</tr>
<tr>
<td>Installment Plan Set-up Fee</td>
<td>$25 (non-refundable) per plan</td>
</tr>
<tr>
<td>Lab and Special Course Fees</td>
<td>Varies by course and term. (View most recent schedule of course charges at <a href="http://www.collin.edu/bursar/labfees.pdf">http://www.collin.edu/bursar/labfees.pdf</a>.)</td>
</tr>
<tr>
<td>1st Day Access eMaterials</td>
<td>Varies by course and noted in schedule of course fee charges. (Pilot program--Answers to Frequently Asked Questions)</td>
</tr>
<tr>
<td>Late Registration Fee</td>
<td>$10 (non-refundable) fee assessed as of the first day of the primary part of term for new registration in the first week of the term.</td>
</tr>
<tr>
<td>Liability Insurance Fee</td>
<td>Varies by term (non-refundable) designated Health Science/Nursing courses</td>
</tr>
<tr>
<td>Returned Check Fee</td>
<td>$25 (non-refundable) per financial instrument</td>
</tr>
<tr>
<td>Student Records Fee</td>
<td>$2 per credit term (non-refundable).</td>
</tr>
<tr>
<td>Technical Certification testing fees</td>
<td>Varies (non-refundable) for designated courses</td>
</tr>
<tr>
<td>Transcripts</td>
<td>$5 (non-refundable) per transcript</td>
</tr>
</tbody>
</table>

Note: Most fees are non-refundable.

**NON-FUNDABLE COURSE TUITION**

Students enrolled in courses not funded 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 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](https://www.collin.edu/gettingstarted/register/withdrawal.html) for a complete list of courses charged the higher tuition rate.

**PAYMENT**

MasterCard, VISA, and Discover cards, as well as cash and checks, are accepted as payment. Checks are processed electronically through the Automated Clearing House (ACH). When writing a check or using a credit card, students must also show a picture identification card and provide their Campus Wide ID (CWID) number. Incomplete and/or unsuccessful payments may result in additional fees. A payment plan option is available prior to the start of each term.

**REFUNDS**

Refund calculations are based on the state-mandated refund policy. Full (100 percent less non-refundable fees) refund credits are only assessed for courses dropped prior to each term’s first class day. Each term’s first class day is based on the week the course begins, not the first day of an individual’s class. As of the first class day, credits assessed for dropped or withdrawn courses will be less than 100 percent, ranging from 70 to 0 percent, per the refund policy.

Registration refunds are processed approximately two weeks after the first class day of the primary part of term and financial aid disbursements approximately a week later after course activity is certified. The complete refund policy is listed in the Collin College Registration Guide.

**EXEMPTIONS AND WAIVERS**

Partnering with the State of Texas to ensure affordability of higher education for all students, Collin 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 office to contact, summary data on eligibility, nature of exemption/waiver offered, and authorizing citation/policies.

Eligible students should contact the responsible Collin 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. Students are responsible for meeting any eligibility requirements and providing required documentation to Collin in compliance.
with payment deadline requirements to consider exemptions/waivers as a source of funding for the term.

**STUDENT FINANCIAL RESPONSIBILITY**

Registration is required for students to attend courses at Collin College, and registration constitutes a contractual financial obligation and agreement to pay tuition and fee charges for which the student is liable. Student tuition bills (e-bill) are posted online and are accessed through CougarWeb. Billing notices are sent to the student’s college assigned email address, the official means of communication with Collin students.

Payment deadlines and student account balances are available online. Meeting payment deadline requirements is the student’s responsibility, regardless of whether an e-bill is received. Each term has an advertised early registration payment deadline (see the Academic Calendar). After the initial payment deadline date, any balance on the student account is due the same day the charge is incurred. Funding must be in place in compliance with payment deadlines to ensure course enrollment status.

Unfunded balances may result in course registration being changed to a dropped/withdrawn status. It is the student’s responsibility to review student account balances, comply with financial aid eligibility requirements and third party funding guidelines, and meet payment deadline requirements. Student accounts with an unpaid debt are subject to changes in course registration status, holds preventing registration, withholding grades, transcripts and degrees. Delinquent accounts may be placed with an outside collection agency and/or reported to the national credit bureau system.

Students are responsible for all late fees, percentage-based collection fees (not to exceed 33.33 percent), attorney fees, interest, and any costs and charges necessary for the collection of any amount not paid when due. All disputes about registration or payment will be governed in accordance with the laws of the State of Texas. The venue for any lawsuit regarding collection of a delinquent debt will be in Collin County, Texas.

**Per Texas Education Code 54.007(2)(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 FROM 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.
# Exemptions and Waivers available at Collin College

<table>
<thead>
<tr>
<th>Optional or Mandatory</th>
<th>Exemption or Waiver</th>
<th>Description</th>
<th>Office to Contact</th>
<th>Texas Residency Requirement</th>
<th>Exempted/Waived</th>
<th>Statute Program</th>
<th>Texas Statute/ Administrative Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>M W</td>
<td>Waiver-Continuous Military Dependent</td>
<td>Student &amp; Enrollment Services</td>
<td>No, continuous domicile required</td>
<td>To resident tuition rate only</td>
<td>Military in Texas</td>
<td>TEC 54.241(c)</td>
<td></td>
</tr>
<tr>
<td>M W</td>
<td>Waiver-Economic Development</td>
<td>Student &amp; Enrollment Services</td>
<td>No</td>
<td>To resident tuition rate only</td>
<td>Economic Development</td>
<td>TEC 54.222</td>
<td></td>
</tr>
<tr>
<td>M W</td>
<td>Waiver-Faculty and Dependents</td>
<td>Student &amp; Enrollment Services</td>
<td>No</td>
<td>To resident tuition rate only</td>
<td>College Teachers, Profs, etc. and dependents</td>
<td>TEC 54.211</td>
<td></td>
</tr>
<tr>
<td>M W</td>
<td>Waiver-Foreign Service</td>
<td>Student &amp; Enrollment Services</td>
<td>No</td>
<td>To resident tuition rate only</td>
<td>Foreign Service Officer</td>
<td>TEC 54.206</td>
<td></td>
</tr>
<tr>
<td>M W</td>
<td>Waiver-Military and Dependents</td>
<td>Student &amp; Enrollment Services</td>
<td>No, but active duty orders or continuous presence</td>
<td>To resident tuition rate only</td>
<td>Military in Texas</td>
<td>TEC 54.241</td>
<td></td>
</tr>
<tr>
<td>M W</td>
<td>Waiver-NATO Alien</td>
<td>Student &amp; Enrollment Services</td>
<td>No</td>
<td>To resident tuition rate only</td>
<td>NATO Members and Families</td>
<td>TEC 54.232</td>
<td></td>
</tr>
<tr>
<td>M W</td>
<td>Waiver-Teacher Research Assistant</td>
<td>Student &amp; Enrollment Services</td>
<td>No</td>
<td>To resident tuition rate only</td>
<td>Teaching and Research Assistants</td>
<td>TEC 54.212</td>
<td></td>
</tr>
<tr>
<td>M W</td>
<td>Waiver-Veterans and Dependents</td>
<td>Student &amp; Enrollment Services</td>
<td>No, DD214 plus</td>
<td>To resident tuition rate only</td>
<td>Military in Texas</td>
<td>TEC 54.241(i and k)</td>
<td></td>
</tr>
<tr>
<td>M E</td>
<td>Exemption-Deaf and Blind</td>
<td>ACCESS Office</td>
<td>Yes</td>
<td>Tuition and fees (excludes pass thru fees)</td>
<td>Deaf or Blind</td>
<td>TEC 54.364</td>
<td></td>
</tr>
<tr>
<td>M E</td>
<td>Exemption-Adoption</td>
<td>Financial Aid</td>
<td>No</td>
<td>Tuition and fees (excludes pass thru fees)</td>
<td>Adopted</td>
<td>TEC 54.367</td>
<td></td>
</tr>
<tr>
<td>M E</td>
<td>Exemption-Child of Clinical Nursing Preceptor</td>
<td>Financial Aid</td>
<td>Yes</td>
<td>Tuition, not to exceed $500</td>
<td>Preceptors and/or their Children</td>
<td>TEC 54.356/Ch 22, Sub P</td>
<td></td>
</tr>
<tr>
<td>M E</td>
<td>Exemption-Child of Disabled Fire/Police Officer</td>
<td>Financial Aid</td>
<td>No</td>
<td>Tuition and fees (excludes pass thru fees)</td>
<td>Children of Disabled Firemen/Peace Officers</td>
<td>TEC 54.351</td>
<td></td>
</tr>
<tr>
<td>M E</td>
<td>Exemption-Child of POW/MIA</td>
<td>Financial Aid</td>
<td>Yes (POW sponsor)</td>
<td>Tuition and fees (excludes pass thru fees)</td>
<td>Children of POWs and MIAs</td>
<td>TEC 54.343</td>
<td></td>
</tr>
<tr>
<td>M E</td>
<td>Exemption-Child of Professional Nursing Staff</td>
<td>Financial Aid</td>
<td>Yes</td>
<td>Tuition pro-rated per employment percentage</td>
<td>Children of Nursing Faculty</td>
<td>TEC 54.355/Ch 22, Sub O</td>
<td></td>
</tr>
<tr>
<td>M E</td>
<td>Exemption-Child, Hazlewood Legacy</td>
<td>Financial Aid</td>
<td>Yes</td>
<td>Tuition and course lab fees only (not funded by Chapter 33 benefits)</td>
<td>Hazlewood-Legacy recipients</td>
<td>TEC 54.341 (k)</td>
<td></td>
</tr>
<tr>
<td>M E</td>
<td>Exemption-Child/Spouse of Deceased Public Servant</td>
<td>Financial Aid</td>
<td>No</td>
<td>Books, tuition, and fees</td>
<td>Dependents of Deceased Public Servants</td>
<td>TEC 54.354</td>
<td></td>
</tr>
<tr>
<td>M/E</td>
<td>Exemption</td>
<td>Financial Aid</td>
<td>Tuition, not to exceed $500</td>
<td>Preceptors and/or their Children</td>
<td>TEC 54.356/Ch 22, Sub P</td>
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<tr>
<td>M/E</td>
<td>Exemption-Preceptor</td>
<td>Financial Aid</td>
<td>TX Employee</td>
<td>Tuition and lab fees only</td>
<td>Firefighters taking Fire Science Courses</td>
<td>TEC 54.353/Ch 22, Sub T</td>
<td></td>
</tr>
<tr>
<td>M/E</td>
<td>Exemption-Foster Care Undergraduate</td>
<td>Financial Aid</td>
<td>No</td>
<td>Tuition and fees (excludes pass thru fees)</td>
<td>Foster Care/TX Dpt Family Protective Sv</td>
<td>TEC 54.366</td>
<td></td>
</tr>
<tr>
<td>M/E</td>
<td>Exemption-Hazlewood Dependent, Disabled sponsor</td>
<td>Financial Aid</td>
<td>Yes</td>
<td>Tuition and course lab/special fees only (not funded by Chapter 33 benefits)</td>
<td>Hazlewood-child/spouse of disabled</td>
<td>TEC 54.341 (a-2) and (b)(1)</td>
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</tr>
<tr>
<td>M/E</td>
<td>Exemption-Hazlewood Eligible Dependent</td>
<td>Financial Aid</td>
<td>Yes</td>
<td>Tuition and course lab/special fees only (not funded by Chapter 33 benefits)</td>
<td>Hazlewood-child/spouse of deceased</td>
<td>TEC 54.341 (a-2) and (b)(1)</td>
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</tr>
<tr>
<td>M/E</td>
<td>Exemption-Hazlewood UG</td>
<td>Financial Aid</td>
<td>Yes at time of enlistment</td>
<td>Tuition and course lab/special fees only (not funded by Chapter 33 benefits)</td>
<td>Hazlewood-Veterans</td>
<td>TEC 54.341 (a)</td>
<td></td>
</tr>
<tr>
<td>M/E</td>
<td>Exemption-Non-funded Course Tuition</td>
<td>Financial Aid</td>
<td>(hardship) Student &amp; Enrollment Services (graduation)</td>
<td>Board approved excess tuition charges for identified course</td>
<td>Approved exceptional circumstances (hardship or term prior to graduation)</td>
<td>Texas Statute/Administrative Rules Title 19, Part 1, Chapter 13(f)</td>
<td></td>
</tr>
<tr>
<td>M/E</td>
<td>Exemption-Law Enforcement</td>
<td>Financial Aid</td>
<td>TX Employee</td>
<td>Tuition and lab fees only</td>
<td>Peace Officer Exemption</td>
<td>TEC 54.3531</td>
<td></td>
</tr>
<tr>
<td>M/E</td>
<td>Exemption-Prisoner of War</td>
<td>Financial Aid</td>
<td>Yes</td>
<td>Tuition and fees (excludes pass thru fees)</td>
<td>Ex-Prisoners of War</td>
<td>TEC 54.342</td>
<td></td>
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<tr>
<td>M/E</td>
<td>Exemption-Texas Guaranteed Tuition Plan Residency</td>
<td>Financial Aid</td>
<td>Student &amp; Enrollment Services, then Bursar/Cashier</td>
<td>To resident tuition rate only</td>
<td>Texas Prepaid Plan</td>
<td>TEC 54.621.c</td>
<td></td>
</tr>
<tr>
<td>M/E</td>
<td>Exemption-Texas Tuition Promise Fund</td>
<td>Financial Aid</td>
<td>Bursar/Cashier</td>
<td>No</td>
<td>Texas Prepaid Plan</td>
<td>TEC 54.621.c</td>
<td></td>
</tr>
<tr>
<td>M/E</td>
<td>Waiver-Texas National Guard Tuition Reimbursement</td>
<td>Financial Aid</td>
<td>Bursar/Cashier</td>
<td>No</td>
<td>Tuition and fees up to amount allocated by adjutant general</td>
<td>National Guard Waiver</td>
<td>TEC 54.345</td>
</tr>
<tr>
<td>O/W</td>
<td>Waiver-Competitive Scholarship</td>
<td>Financial Aid</td>
<td>Athletic Department</td>
<td>No</td>
<td>Non-resident to resident tuition rate</td>
<td>Competitive Scholarship</td>
<td>TEC 54.213/Ch 21, Sub SS</td>
</tr>
<tr>
<td>O/W</td>
<td>Waiver-Good Neighbor</td>
<td>Financial Aid</td>
<td>Student &amp; Enrollment Services</td>
<td>No</td>
<td>Tuition as approved by THECB</td>
<td>Good Neighbor/Students from Other Nations of the American Hemisphere</td>
<td>TEC 54.331/CH 21, Sub K</td>
</tr>
<tr>
<td>O</td>
<td>E</td>
<td>Waiver-Collin Support Staff</td>
<td>Student &amp; Enrollment Services</td>
<td>Yes</td>
<td>Out-of-county to in-county tuition only</td>
<td>Community College District Employees</td>
<td>TEC 130.0851</td>
</tr>
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</tr>
<tr>
<td>O</td>
<td>E</td>
<td>Exemption-Ad Valorem Residency</td>
<td>Student &amp; Enrollment Services</td>
<td>No</td>
<td>To resident tuition rate only</td>
<td>Ad Valorem</td>
<td>TEC 130.0032(a)</td>
</tr>
<tr>
<td>O</td>
<td>E</td>
<td>Exemption-Contract Training</td>
<td>Center for Workforce &amp; Economic Development</td>
<td>No</td>
<td>To resident tuition rate for eligible courses only</td>
<td>Agreement with Junior College District</td>
<td>TEC 130.0081</td>
</tr>
<tr>
<td>O</td>
<td>E</td>
<td>Exemption-Dual Credit to In-County Tuition</td>
<td>Student &amp; Enrollment Services &amp; Academic Partnership</td>
<td>No</td>
<td>To in-district tuition rate only</td>
<td>Dual Enrollment--Jr College</td>
<td>TEC 130.008/54.216</td>
</tr>
<tr>
<td>O</td>
<td>E</td>
<td>Exemption-High School Concurrent</td>
<td>Academic Partnership &amp; Testing Center</td>
<td>No, attending local high school and on free and reduced lunch</td>
<td>Tuition and fees (excludes pass thru fees)</td>
<td>Dual Enrollment--Jr College</td>
<td>TEC 130.008/54.216</td>
</tr>
<tr>
<td>O</td>
<td>E</td>
<td>Exemption-Highest Ranking Graduate</td>
<td>Student &amp; Enrollment Services</td>
<td>No-TX high school grad</td>
<td>Tuition only</td>
<td>Highest Ranking HS Scholar</td>
<td>TEC 54.301</td>
</tr>
<tr>
<td>O</td>
<td>E</td>
<td>Exemption-Senior Citizen, 65 and older</td>
<td>Student &amp; Enrollment Services</td>
<td>Yes</td>
<td>Tuition only for up to 6 hours</td>
<td>Senior Citizen 65+ for 6 hours</td>
<td>TEC 54.365 (b and c)</td>
</tr>
<tr>
<td>O</td>
<td>E</td>
<td>Waiver-Board Reciprocal County Agreement</td>
<td>Student &amp; Enrollment Services</td>
<td>No</td>
<td>To resident tuition rate only</td>
<td>Inter-institutional Academic Programs</td>
<td>TEC 54.368/130.0032</td>
</tr>
</tbody>
</table>
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/gettingstarted/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/Explanaton_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 “F” 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. All students are encouraged to apply.

Students are encouraged to visit the Foundation website at [http://www.collin.edu/foundation](http://www.collin.edu/foundation). Please check the Foundation website for priority deadlines for submitting applications. 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 Associaion (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. Continuing Education offers foreign language classes. For more information, visit Continuing Education https://www.collin.edu/ce/

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](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.

<table>
<thead>
<tr>
<th>Grade Points Per Semester Hour</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
</tr>
<tr>
<td>B</td>
<td>Above Average</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
</tr>
<tr>
<td>D</td>
<td>Below Average</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawn</td>
</tr>
<tr>
<td>(Not included in GPA or Earned Hours)</td>
<td></td>
</tr>
<tr>
<td>WS</td>
<td>Withdrawal Affectd</td>
</tr>
<tr>
<td>(Not included in GPA or Cumulative Hours Counts in State six W/D limit.)</td>
<td></td>
</tr>
<tr>
<td>WZ</td>
<td>Withdrawn by Department</td>
</tr>
<tr>
<td>(Not included in GPA or Earned Hours)</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>IP</td>
<td>in Progress</td>
</tr>
<tr>
<td>(0 grade points per semester hour. Student completed 70 percent but has not reached competency.)</td>
<td></td>
</tr>
<tr>
<td>AD</td>
<td>A - Developmental</td>
</tr>
<tr>
<td>BD</td>
<td>B – Developmental</td>
</tr>
<tr>
<td>CD</td>
<td>C – Developmental</td>
</tr>
<tr>
<td>DD</td>
<td>D – Developmental</td>
</tr>
<tr>
<td>FD</td>
<td>F – Developmental</td>
</tr>
<tr>
<td>AT</td>
<td>Excellent (Transfer)</td>
</tr>
<tr>
<td>BT</td>
<td>Above Average (Transfer)</td>
</tr>
<tr>
<td>CT</td>
<td>Average (Transfer)</td>
</tr>
<tr>
<td>DT</td>
<td>Below Average (Transfer)</td>
</tr>
<tr>
<td>AU</td>
<td>Audit (Not included in GPA or Earned Hours)</td>
</tr>
<tr>
<td>CR</td>
<td>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)</td>
</tr>
<tr>
<td>P</td>
<td>Pass (Not included in GPA or Earned Hours)</td>
</tr>
<tr>
<td>T</td>
<td>Non Course Base (Transfer)</td>
</tr>
<tr>
<td>TASP remediation</td>
<td>TASP remediation</td>
</tr>
<tr>
<td>X</td>
<td>Pending Dean of Student Case</td>
</tr>
<tr>
<td>XF</td>
<td>Administrative Assignment of Failure (Not included in GPA or Earned Hours)</td>
</tr>
<tr>
<td>XW</td>
<td>Administrative Withdrawal (Not included in GPA or Earned Hours)</td>
</tr>
<tr>
<td>Z</td>
<td>No grade reported. Instructor did not assign a grade.</td>
</tr>
<tr>
<td>ZW</td>
<td>Administrative withdraw due to a fraudulent act of scholastic dishonesty. (Not included in GPA or Earned Hours)</td>
</tr>
</tbody>
</table>
Incomplete Grades and Contracts
The “I” grade is assigned only for extenuating circumstances. Incomplete contracts must be agreed to and signed by the student, professor, chair and appropriate academic dean before the end of the term in order for a grade of “I” to be assigned.

The contract must define the exact requirements (not to exceed 20 percent of the coursework) the student is to fulfill in order to receive a performance grade. If remaining work is greater than 20 percent of the coursework, the approval of the Vice President/Provost is required. Requirements of incomplete contracts must be completed as specified in the contract, but no later than the end of the next long semester.

The contract will state that if the work is not completed as specified, the grade will be changed to a performance grade based on the quality and amount of work completed. If the instructor does not initiate a grade change by the end of the next semester, the grade will be changed by the 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.

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:
1. only one (1) course grade will be counted in a student’s grade point average (GPA), and
2. 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 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 transcripted 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 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**
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 transcripted 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

**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 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 shall be used for accountability purposes. The guarantee shall ensure the graduate’s employer that the graduate has met program competencies and shall offer up to nine tuition-free hours of education for a program graduate judged by the employer to be unable to perform on the job the competencies as specified in the college program. The program can be initiated by the employer or graduate, within 90 days of the graduate’s initial employment, by submitting a written request to the Vice President/Provost.

**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
   . Student address
3. Home phone number
   . Major field(s) of study
   . Participation in officially recognized activities and sports
4. Dates of attendance/enrollment
5. Weight and height of athletic team members
6. 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 seven (7) hours in a Summer session. 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’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; however, a cumulative GPA of 2.0 is required for graduation. 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) 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 (1st) 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 (8th) class week during a regular 16-week semester, through Tuesday of the third (3rd) week of classes in a short five-week Summer term, and through Thursday of the fifth (5th) week of classes in a long 10-week Summer term.

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-semesters 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 four unique types of learning opportunities for students.

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

Continuing Education (CEUs) provides opportunities for lifelong learning and workforce training when a college degree is not desired.

**Credit Programs**
Academic Programs prepare a student for transfer to a baccalaureate college or university.

Workforce Degrees and Certificates to prepare a student for immediate entry-level employment or advancement.

**NON-CREDIT COURSEWORK**

**DEVELOPMENTAL EDUCATION (DE) COURSES**

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.

DE includes courses in English as a Second Language, Developmental Mathematics and Integrated Reading/Writing courses. 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 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 Frameworks.

**Learning to Learn**
EDUC 1300 Learning Frameworks 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 X $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 0406: Introductory Algebra 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 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) courses

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/department/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:

- ESLE 0305 ESL Listening and Speaking, Intermediate
- ESLE 0310 ESL Listening and Speaking, Advanced
- ESLE 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 Opportunities

Quality Learning Opportunities

Collin College Continuing Education is the leading career skills training institution for adults who are not seeking a degree. More than 70 industry recognized certificate series and certification preparation training programs are offered in the information technology, management, administrative, finance, logistics, health care, education, technical trades, creative, and service career fields.

Website: www.collin.edu/ce/

You may also view/print downloadable pdf version of our current course schedule on our website.

What is Continuing Education (CE)?

- These courses are offered on a noncredit basis (offering no college credit).
- Most CE courses do not have specific entrance or examination requirements. Please refer to the course descriptions on our website for prerequisites and placement requirements.
- Unless otherwise specified, the minimum age requirement for enrollment in CE classes is 16 years of age.

How Can Continuing Education Courses Help Me?

CE courses are geared towards career skills success through:

- Flexible course schedules that are available online, on-campus, or in a hybrid/blended format to increase your skills and knowledge.
- Quality courses taught by industry experts.
- Cost effectiveness.
- Multiple campus locations.
- Options to register for classes throughout the semester.
- Extensive course options including linked courses and online courses.
- Select courses that prepares you to take an industry recognized certification exam.

What are Continuing Education Units (CEUs)?

- CEUs record satisfactory completion of certain approved occupationally-related programs.
- CEUs are awarded for successful course completion.
- One CEU is awarded for each ten (10) contact hours of instruction included in a specified continuing education program or activity.
- Successful completion is attendance-based, unless otherwise noted with "Passed Competencies" under "CEUs earned".
- Ninety percent attendance is required for successful completion.
- These units are recognized nationally.

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

- Visit our website www.collin.edu/edu for expanded information of courses offered through Continuing Education (CE).

Are there any prerequisites for Continuing Education courses?

- If a continuing education course requires a prerequisite, it will be specified.
- Prerequisites are stated to ensure students have the prior knowledge and skills needed to get the most out of the course and to be successful in that course.
- It is recommended that students talk to a continuing education staff member if there are any questions.

Will I receive a certificate once I complete my course?

- Certificates are awarded upon successful completion of certificate series only. They are not offered for individual courses.
- You may request an official school transcript. Transcripts record Continuing Education Units (CEUs).
- Continuing Education Units (CEUs) are awarded for successful course completion.
- For transcript requests call 972.985.3721.

Is Financial Aid available?

- Details and application can be found on www.collin.edu/ce/financial-aid.html
- Please give 6 weeks to process, so apply early.
- If you have Financial Aid or a Third Party is paying for your tuition, do not enroll online. Our online system does not recognize funds awarded so please call our staff at 972.985.3711 to enroll you.
Locations for Continuing Education classes
- Continuing Education classes are located at the Courtyard Center as well as other various locations. Refer to www.collin.edu/ce in the FAQ section for a list of locations and maps.

What are Linked Courses?
Some Collin College credit courses are offered each semester for "linked" enrollment by Continuing Education (CE) students. Features of linked courses include:
- taking credit classes through Continuing Education in the same classroom
- taught by credit professors
- same learning environment ensures the rigorous standards are met
- expected to complete all course assignments and tests as credit students

Space is limited for linked CE participants. Unlike credit students, CE students will complete a quick admission process. CE students enrolled in linked courses will earn Continuing Education Units (CEUs) not college credits. Refunds for CE students in linked courses will be based on the CE refund policy. For current linked course offerings, please refer to www.collin.edu/ce/classes/linked.html

How do I apply?
- For CE courses, there is open enrollment - you simply choose which course you want, register and pay for the class. For select CE Healthcare courses, an application is required with supporting documents. Information can be found on www.collin.edu/ce/healthsciences/index.html
- Registration is easy! You may register online, over the phone at 972.985.3711 or at any of our campus locations. For online registration instructions, go to www.collin.edu/ce/application.html

CREDIT PROGRAMS
SMART PLANNING FOR A DEGREE PROGRAM OR AREA OF STUDY
Collin College offers a variety of plans designed to prepare students for a college or university degree. Some options include pursuing an associate degree of arts or science (AA or AS) or an associate of arts in teaching (AAT); completing the General Education Core certificate; a Field of Study; or beginning coursework in a pre-professional program. Applied Associate of Science (AAS) workforce degrees and certificates prepare a student for immediate employment.

Choose A Program and Award
If you need help selecting a program that matches your skills and personality, go to Collin’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. 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 will apply to the transfer institution.

Stay on Track
Plan ahead for registration each semester. It is important to meet with a Collin College Academic Advisor at least a few weeks before Priority Registration to ensure that you are taking courses that apply to your degree plan and keep you on track toward your ultimate goals. Advisors help ensure you are following your degree plan in the most efficient way possible.

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.

Know before you go
Students who complete a Degree Program (AA, AS, AAS) or the Core Curriculum at Collin College are more likely to be successful (compared to those who do not complete an award) as they continue their education at other higher education institutions.

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 a Collin academic advisor or the program description for the year of their choice to learn about all 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. 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 academic advisor.

Pre-Architecture
Collin offers the general education courses commonly required for students entering a baccalaureate degree program leading to careers in architecture, landscape architecture, building construction, and urban and regional planning.

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 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 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.
ACADEMIC PROGRAMS

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 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. 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. Earn a minimum cumulative grade point average (GPA) of 2.0.
4. Earn a minimum of 18 credit hours at Collin College.
5. Complete a minimum of 18 additional credit hours of degree requirements and general studies electives.

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. Earn a minimum cumulative grade point average (GPA) of 2.0.
4. Earn a minimum of 18 credit hours at Collin College.
5. Complete a minimum of 18 additional credit hours of degree requirements and general studies electives.
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:
     o BIOL 1406, 1407, 1414, 1415, 2401, 2402, 2406, 2416, 2421
     o CHEM 1411, 1412, 2423, 2425
     o ENVR 1401, 1402
     o GEOL 1403, 1404
     o PHYS 1401, 1402, 2425, 2426

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.
   - Complete the General Education Core of 42 credit hours.
2. 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.
3. Earn a minimum of 18 credit hours at Collin College.
4. 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.

Baccalaureate Degree Requirements
1. Earn a minimum of 120 college-level credit hours.
2. Complete the General Education Core of 42 credit hours.
3. Complete all other requirements specific to each degree.

AA and AS Fields of Study

AA and AS degrees may have state-recognized Fields of Study (FOS) Transfer Curricula, which are available in six (6) fields. The certificate of completion for a specific FOS is awarded to guarantee transfer of the courses contained in the FOS curriculum freely among Texas public colleges. The FOS courses are 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
• Criminal Justice
• Engineering
• Music

**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’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 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.
## COLLIN AA/AS/AAT GENERAL EDUCATION CORE

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Courses</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>010 Communication Component</strong></td>
<td>6 Credit Hours</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>ENGL 1301 and either ENGL 1302 or 2311</td>
<td></td>
</tr>
</tbody>
</table>

| **020 Mathematics Component** | 3 Credit Hours | |
| Mathematics | MATH 1314 or 1414, 1316, 1342, 2305, 2318, 2320, 2412, 2413, 2414, 2415 | These courses satisfy the AS, AA, & AAT Math requirement |
| Mathematics | 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.

| **030 Life & Physical Sciences Component** | 6 Credit Hours | |
| Biology | BIOL 1406, 1407, 1414, 1415, 2401, 2402, 2406, 2416, 2421 | A two-course sequence is recommended. |
| Chemistry | CHEM 1411, 1412, 2423, 2425 | These courses satisfy the AS, AA, & AAT Science requirement. |
| Environment | ENVR 1401, 1402 | |
| 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”

| **040 Language, Philosophy & Culture Component** | 3 Credit Hours | |
| 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 | |

| **050 Creative Arts Component** | 3 Credit Hours | |
| Dance | DANC 2303 | |
| Music | MUSI 1306, 1307, 1310 | |
| Theatre | DRAM 1310, 2361, 2362, 2366 | |
| Visual Arts | ARTS 1301, 1303, 1304, 1313 | |

| **060 American History Component** | 6 Credit Hours | |
| Government | GOVT 2305 and 2306 | |

| **070 Government/Political Science Component** | 6 Credit Hours | |
| Anthropology | ANTH 2302, 2346, 2351 | |
| Economics | ECON 2301, 2302 | |
| Psychology | PSYC 2301 | |
| Sociology | SOCI 1301, 1306 | |

| **080 Social and Behavioral Sciences Component** | 3 Credit Hours | |
| Anthropology | ANTH 2302, 2346, 2351 | |
| Economics | ECON 2301, 2302 | |
| Psychology | PSYC 2301 | |
| Sociology | SOCI 1301, 1306 | |

| **090 Collin Options** | 6 Credit Hours | |
| Area 1 – Speech | 3 credit hours | SPCH 1311, 1315, 1321 | 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. |
| Area 2 – 3 credit hours | | EDUC 1300*, KINE 1164, 1304, 1338, PSYC 1100*, 1300*, Or Any core course not used to meet the requirement of another component. * Only one of these courses may be taken. |

Area 2 requirement. See “Becoming Core Complete” on the previous page for more information.

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.

**1** hour of each 4 hour Life & Physical Sciences course will be transcripted as **090 Collin Options**, up to 2 credit hours.
ASSOCIATE OF ARTS DEGREE (AA)

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 academic advisor and/or the college or university that they plan to attend.

AA FIELDS OF STUDY (FOS) AND GENERAL STUDIES ELECTIVES

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

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 courses. Collin’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. For more information please visit www.afrotc.unt.edu or www.armyrotc.unt.edu.

American Sign Language
Also see AAS – Interpreter Education Program (IEP)

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

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

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.

Recommended Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGNL 1401</td>
<td>Beginning American Sign Language I</td>
</tr>
<tr>
<td>SGNL 1402</td>
<td>Beginning American Sign Language II</td>
</tr>
<tr>
<td>SGNL 2301</td>
<td>Intermediate American Sign Language I</td>
</tr>
<tr>
<td>SGNL 2302</td>
<td>Intermediate American Sign Language II</td>
</tr>
<tr>
<td>SLNG 1211</td>
<td>Fingerspelling and Numbers 1,*</td>
</tr>
<tr>
<td>SLNG 1347</td>
<td>Deaf Culture</td>
</tr>
<tr>
<td>EDUC 1301</td>
<td>Introduction to the Teaching Profession 2</td>
</tr>
<tr>
<td>EDUC 2301</td>
<td>Introduction to Special Populations 2</td>
</tr>
</tbody>
</table>

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

Anthropology

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

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

**Recommended Electives**
- **ANTH 2301** Physical Anthropology
- **ANTH 2302** Introduction to Archeology
- **ANTH 2346** General Anthropology
- **BIOL 2404** Human Anatomy and Physiology Basic
- **BIOL 2416** Genetics
- **ENGL 2332** World Literature I
- **GEOG 1302** Human Geography
- **PHIL 2306** Introduction to Ethics
- **PSYC 2301** General Psychology
- **SOCI 1301** Introduction to Sociology
- **ARTS 1301** Art Appreciation
- **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 1317** Drawing II
- **ARTS 2311** Design III (may be 2-D, 3-D, color, or combinations thereof)
- **ARTS 2317** Painting II
- **ARTS 2323** Figure Drawing I
- **ARTS 2326** Sculpture I
- **ARTS 2333** Printmaking I
- **ARTS 2341** Jewelry/Art Metals I
- **ARTS 2346** Ceramics I
- **ARTS 2347** Ceramics II
- **ARTS 2366** Watercolor I

**Business Field of Study**

*An Associate of Arts with a Business Field of Study requires 60 credit hours*

Students interested in careers in business or who are planning to major in accounting, business administration, finance, international business, management, or marketing for a baccalaureate degree should follow the Business Field of Study curriculum.

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.

Did you know that you can also earn an AA or AS degree in addition to the Field of Study certificate? Contact an academic advisor today to learn more about how to develop an educational plan that is right for you.

**Certificate – Business Field of Study**

24 credit hours

**Required General Education Core Courses**

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

**Other Required Courses**

- **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 Field of Study
An Associate of Arts with a Communication Field of Study requires 60 credit hours.

Program Options:
Certificate – Communication Field of Study
Advertising / Public Relations (Sub-Area)
General Communication (Sub-Area)
Journalism / Mass Communication (Sub-Area)
Radio and Television Broadcasting / Broadcast Journalism (Sub-Area)

Collin offers four sub-areas (listed above) of the Communication Field of Study (FOS).

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.

Did you know that you can also earn an AA or AS degree in addition to the Field of Study certificate? Contact an academic advisor today to learn more about how to develop an educational plan that is right for you.

Listed below are the requirements for each Communication Field of Study sub-area:

Certificate – Communication Field of Study - Advertising / Public Relations (Sub-Area)
12 credit hours

Required Courses
Competency Area 1
6 - 9 credit hours
COMM 1307 Introduction to Mass Communication
COMM 2300 Media Literacy
COMM 2330 Introduction to Public Relations

Competency Area 2
3 - 6 credit hours
COMM 2332 Radio / Television News
COMM 2339 Writing for Radio, Television, and Film

Recommended Electives to complete AA
(If not used above)
6 credit hours
COMM 2330 Introduction to Public Relations
COMM 2332 Radio / Television News
SPCH 1318 Interpersonal Communication

Certificate – Communication Field of Study - General Communication (Sub-Area)
12 credit hours

Required Courses
Competency Area 1
6 credit hours
SPCH 1311 Introduction to Speech Communication 1
SPCH 1318 Interpersonal Communication

Competency Area 2
6 credit hours
SPCH 1315 Public Speaking 1
SPCH 1321 Business and Professional Communication 1
SPCH 2335 Argumentation and Debate

1. If you are working toward the General Communication Sub-Area of the Communication Field of Study, one of these courses will have met the Component Area Option - Speech requirement.

Recommended Electives to complete AA
(If not used above)
9 credit hours
COMM 1307 Introduction to Mass Communication
COMM 2300 Media Literacy
COMM 2331 Radio / Television Announcing
COMM 2332 Radio / Television News

Certificate – Communication Field of Study - Journalism / Mass Communication (Sub-Area)
12 credit hours

Required Courses
Competency Area 1
6-9 credit hours
COMM 1307 Introduction to Mass Communication
COMM 1335 Introduction to Electronic Media
COMM 2300 Media Literacy
COMM 2330 Introduction to Public Relations

Competency Area 2
3-6 credit hours
COMM 2332 Radio / Television News
COMM 2339 Writing for Radio, Television and Film

Recommended Electives to complete AA
(If not used above)
6 credit hours
COMM 2330 Introduction to Public Relations
COMM 2332 Radio / Television News
SPCH 1318 Interpersonal Communication
Certificate – Communication Field of Study
Radio and Television Broadcasting / Broadcast Journalism (Sub-Area)
12 credit hours

Required Courses

Competency Area 1
6-9 credit hours
COMM 1307 Introduction to Mass Communication
COMM 1335 Introduction to Electronic Media
COMM 2300 Media Literacy
COMM 2366 Introduction to Cinema

Competency Area 2
3-6 credit hours
COMM 2331 Radio / Television Announcing
COMM 2332 Radio / Television News
COMM 2339 Writing for Radio, Television and Film

Recommended Electives to complete AA
(If not used above)
6 credit hours
COMM 2330 Introduction to Public Relations
COMM 2332 Radio / Television News
SPCH 1318 Interpersonal Communication

Certificate – Criminal Justice Field of Study
15 credit hours

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

To complete the AA degree, in addition to the Field of Study Certificate, complete the remaining General Education Core requirements and recommended elective credit hours.

Criminal Justice Electives to complete AA
3 credit hours
CRJ 1307 Crime in America
CRJ 1313 Juvenile Justice System
CRJ 2314 Criminal Investigation
CRJ 2323 Legal Aspects of Law Enforcement

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

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 Collin’s student dance company. The mission of the company is to produce contemporary dance works at the highest level of artistic excellence. The dance company attends and performs at the American College Dance Festival annually and has received the Gala Award at that festival six times and has performed at the National festival, too. Dance auditions for the dance company are held prior to the Fall semester.

To earn 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.

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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.
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

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

Education
See Associate of Arts in Teaching (AAT) and Child Development (AAS) program.

English
From the development of your own critical reading, thinking and writing skills to studies of genre-specific writing like novels, poetry, short stories and essays, Collin College’s English courses offer a choice for every student.

Composition and rhetoric courses focus on writing as a process requiring planning, analysis and research, allowing you to express your opinion about the material clearly and with conviction. You can take your writing a step further with electives in creative writing or technical writing.

Sophomore-level courses include surveys in global and national literatures and genre-specific courses focusing on novels or short stories.

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

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.

Recommended Electives
ENGL 2307  Creative Writing I
ENGL 2308  Creative Writing II
ENGL 2311  Technical and Business Writing
ENGL 2322  British Literature I
ENGL 2323  British Literature II
ENGL 2327  American Literature I
ENGL 2328  American Literature II
ENGL 2332  World Literature I
ENGL 2333  World Literature II
X4XX  Foreign Language Sequence I
X4XX  Foreign Language Sequence II

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

Government
Department Website:
www.collin.edu/department/politicalscience/

Do you want to learn how federal state and local governments work? Are you interested in why, sometimes, they don’t? Collin College government coursework emphasizes historical context, contemporary political analysis and critical thinking to provide you with a greater understanding of the role of government in Texas and American politics.

An Associate of Arts degree with coursework in government is a stepping stone to a liberal arts education and can be the basis for a bachelor's degree from a college or university.

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.

Recommended Electives
GOVT 2304  Introduction to Political Science
GOVT 2311  Mexican-American Politics
CRJ 1301  Introduction to Criminal Justice
ECON 2301  Principles of Macroeconomics
ECON 2302  Principles of Microeconomics
PHIL 2303  Introduction to Formal Logic
PHIL 2306  Introduction to Ethics
PSYC 2301  General Psychology
X4XX  Foreign Language Sequence I
X4XX  Foreign Language Sequence II

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 History and Mexican-American History.

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.

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

Music Field of Study
An Associate of Arts with a Music Field of Study requires 60 credit hours. Music also has a workforce program.

Bring your talent for music to Collin College, where our instructors can help you hone your craft as you study in the field of your choice. Like jazz? How about classical? Are you an instrumentalist? Strictly a vocalist? Collin College has a place for you.

The Music field of study (FOS) provides approved courses for music majors who intend to transfer to a college or university and further their musical studies. The curriculum offers the required music theory, ear training, keyboard skills, music literature, private applied study and ensemble participation that all music majors must complete during their freshman and sophomore years. Upon completion of the field of study curriculum, a certificate will be awarded to acknowledge completion and readiness to transition from an associate level to a baccalaureate (BA/BS) level, at any Texas public institution.

The college is also home to several ensembles and musical groups, allowing you to explore your abilities with other like-minded musicians in a comfortable setting. College facilities even provide a venue to share your talent with the world.
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. Did you know that you can also earn an AA or AS degree in addition to the Field of Study certificate? Contact an academic advisor today to learn more about how to develop an educational plan that is right for you.

**Certificate – Music Field of Study**
31 credit hours

**Ensemble**
4 credit hours
MUEN X1XX Ensemble (4 semesters) ¹

**Applied Study**
8 credit hours
MUAP X2XX Applied Music (4 semesters) ²

**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 ³

**Recommended Courses for Piano Proficiency**
**Keyboard (Piano) Competency**
4 credit hours
MUSI 1181 Piano Class I ⁴
MUSI 1182 Piano Class II ⁴
MUSI 2181 Piano Class III ⁴
MUSI 2182 Piano Class IV ⁴

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.

**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, 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.

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.

**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**
Photography also has a workforce program.

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 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.

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.

Recommended Electives
ARTS 1313 Foundations of Art
ARTS 2348 Digital Photography I
ARTS 2336 Photography I / Darkroom
ARTS 2357 Photography II / Darkroom
PHTC 1300 Digital Photography II
PHTC 1371 Book, Design, and Presentation
PHTC 2380 Cooperative Education – Commercial Photography

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

Collin 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.

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.

Recommended Electives
PSYC 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 2319 Social Psychology
SOCI 1301 Introduction to Sociology
SOCI 1306 Social Problems
SOCI 2301 Marriage and the Family

Sociology
Department Website:
www.collin.edu/department/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.

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.

Recommended Electives
SOCI 1301 Introduction to Sociology
SOCI 1306 Social Problems
SOCI 2301 Marriage and the Family
SOCI 2306 Human Sexuality
SOCI 2319 Minority Studies
ANTH 2351 Cultural Anthropology
Theatre

Whether you are taking your first timid steps upon the stage or you are a veteran of high school musicals and plays, theatre coursework at Collin College can be your ticket to better performance and a fuller understanding of "the business of show."

Theatre coursework introduces students to the aesthetic and analytical elements of theatrical productions. It offers a full curriculum of theatre study including work in beginning and advanced acting, musical theatre, voice and diction, stage and lighting design, costume design and stage makeup, theatre history and script analysis, and specialty courses in circus skills, stunt work, stage combat, stage management, and acting for the camera. The labs enable students to have hands-on experiences through performances, as well as shop and crew assignments. Studies include contemporary theories and classical aspects of theatrical productions.

Theatre coursework at Collin College has been nationally recognized and Collin students have been awarded the national championship of collegiate drama. What's more, many Collin College alumni have worked on Broadway. Theatre faculty and students have diverse experience in professional stage and motion picture work.

The state-of-the-art theatre facility is comprised of three separate performance spaces including the 350-seat John Anthony Theatre, the 120-seat Black Box Theatre and the intimate ALT Lab Theatre. The multimillion-dollar complex also houses two dressing rooms, a theatre box office, a costume vault and construction shop, a scene and paint shop, in addition to numerous acting and directing classroom spaces.

To earn 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.

Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>DRAM 1120</td>
<td>Theatre Practicum I</td>
</tr>
<tr>
<td>DRAM 1121</td>
<td>Theatre Practicum II</td>
</tr>
<tr>
<td>DRAM 1161</td>
<td>Musical Theatre I</td>
</tr>
<tr>
<td>DRAM 1162</td>
<td>Musical Theatre II</td>
</tr>
<tr>
<td>DRAM 1310</td>
<td>Introduction to Theater</td>
</tr>
<tr>
<td>DRAM 1322</td>
<td>Stage Movement</td>
</tr>
</tbody>
</table>
ASSOCIATE OF ARTS IN TEACHING (AAT)

Take your first steps toward becoming a teacher with an Associate of Arts in Teaching (AAT) degree from Collin College. Collin offers degree plans with three specializations in mind: early childhood through grade 6; middle grades (grades 4-8); and high school (grades 8-12). All will prepare you to transfer to a baccalaureate program that lead to initial Texas teacher certification.

Students should contact the teacher education program at the specific college or university to which they plan to transfer for detailed information prior to registering. Contact names and phone numbers are available from the Collin academic advisor, or go to http://transferu.collin.edu.

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

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 18 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)

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 fields/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
(Mathematics for Teachers I)

1. Check with the Collin 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

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. 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
(Mathematics for Teachers I)
MATH 1351 Mathematics for Teachers II
(Fundamentals of Mathematics II)
XXXX x4xx Additional Lab Science Course

1. Check with the Collin 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

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

1. Check with the Collin academic advisor and the receiving college or university for recommended courses in teaching field prior to registering.
ASSOCIATE OF SCIENCE DEGREE (AS)

AS FIELDS OF STUDY (FOS) AND ELECTIVES

The Associate of Science degree provides general academic courses and electives for students who plan to transfer to a college or university. Because of the various transfer requirements at colleges and universities and to ensure enrollment in appropriate courses, students should verify course transferability with the Collin academic advisor and/or TransferU at: http://www.collin.edu/transferu/index.html

Biology

Today, more than ever, an understanding of biology is critical to human life and the future of the planet. Fast-paced developments in medicine, genetics and environmental issues can be bewildering without basic knowledge of biological science.

Biology coursework and an Associate of Science degree from Collin College will prepare you for university studies in a science-related field. Collin offers a personalized, high quality educational experience, with an excellent instructional staff, computer-aided instruction, state-of-the-art laboratory facilities and an emphasis on current research.

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 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.

Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIOL 1322</td>
<td>General Nutrition</td>
</tr>
<tr>
<td>BIOL 2389</td>
<td>Academic Co-op Biology</td>
</tr>
<tr>
<td>BIOL 2401</td>
<td>Anatomy and Physiology I</td>
</tr>
<tr>
<td>BIOL 2402</td>
<td>Anatomy and Physiology II</td>
</tr>
<tr>
<td>BIOL 2406</td>
<td>Environmental Biology</td>
</tr>
<tr>
<td>BIOL 2416</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 2421</td>
<td>Microbiology for Science Majors</td>
</tr>
<tr>
<td>CHEM 1411</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 1412</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 2423</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 2425</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>HITT 1305</td>
<td>Medical Terminology I</td>
</tr>
<tr>
<td>MATH 1342</td>
<td>Elementary Statistical Methods</td>
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<tr>
<td>PHYS 1401</td>
<td>College Physics I</td>
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<tr>
<td>PHYS 1402</td>
<td>College Physics II</td>
</tr>
<tr>
<td>PHYS 2425</td>
<td>University Physics I</td>
</tr>
<tr>
<td>PHYS 2426</td>
<td>University Physics II</td>
</tr>
</tbody>
</table>

Chemistry

Department Website: http://www.collin.edu/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 a personalized, high quality educational experience.

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.

Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CHEM 2389</td>
<td>Academic Co-op Chemistry</td>
</tr>
<tr>
<td>CHEM 2423</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 2425</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>MATH 2320</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>MATH 2415</td>
<td>Calculus III</td>
</tr>
<tr>
<td>PHYS 2425</td>
<td>University Physics I</td>
</tr>
<tr>
<td>PHYS 2426</td>
<td>University Physics II</td>
</tr>
</tbody>
</table>

Computer Science Field of Study

Artificial intelligence. Bioinformatics. Computer theory. Computer science is a wide-ranging field of study, with career opportunities for people who are looking to the future.

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

Field of Study (FOS) 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. The
Computer Science Field of Study curriculum is designed to apply to a bachelor’s degree in Computer Science. Within the Computer Science FOS there are courses listed which will satisfy requirements for both the AS General Education Core and the FOS. You should meet with an academic advisor about transferring Core Curriculum and Fields of Study courses to a specific university or college.

Did you know that you can also earn an AA or AS degree in addition to the Field of Study certificate? Contact an academic advisor today to learn more about how to develop an educational plan that is right for you.

**AS – Computer Science Field of Study**
60 credit hours

**FIRST YEAR**

**First Semester**
- ENGL 1301 Composition I
- MATH 2413 Calculus I
- GEN ED American History course
- COSC 1336 Programming Fundamentals I
- GEN ED Social / Behavioral Sciences course

**Second Semester**
- ENGL 2311 Technical and Business Writing
- MATH 2414 Calculus II
- GEN ED American History course
- COSC 1437 Programming Fundamentals II

**SECOND YEAR**

**First Semester**
- PHIL 2303 Introduction to Formal Logic
- PHYS 2425 University Physics I
- COSC 2436 Programming Fundamentals III
- GOVT 2305 Federal Government (Federal constitution and topics)

**Second Semester**
- GEN ED Creative Arts course
- PHYS 2426 University Physics II
- GOVT 2306 Texas Government (Texas constitution and topics)
- SPCH 1315 Public Speaking (See Speech options)
- COSC 2325 Computer Organization

1. Requires prerequisite of MATH 2412 or equivalent.
2. May substitute ENGL 1302.

**Certificate – Computer Science Field of Study**
30 credit hours

**Required General Education Core Courses**
12 credit hours
- MATH 2413 Calculus I
- PHYS 2425 University Physics I
- PHYS 2426 University Physics II

**Other Required Courses**
18 credit hours
- COSC 1336 Programming Fundamentals I
- COSC 2325 Computer Organization
- MATH 2414 Calculus II
- COSC 1437 Programming Fundamentals II
- COSC 2436 Programming Fundamentals III

An Associate of Science may also be earned with the Computer Science Field of Study. To earn the AS degree, in addition to the Field of Study Certificate, complete the remaining General Education Core requirements:

1. It is recommended that students complete the math sequence, physics sequence, and computer science sequence at the same institution to reduce the likelihood of potential gaps in the curriculum.
2. COSC 1336 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.
   a) COSC 1336 is not part of the Computer Science major requirements at The University of Texas at Austin, the University of Texas at Arlington, The University of Texas at Dallas, and Texas A&M University.
   b) COSC 1437 is not part of the Computer Science major requirements at The University of Texas at Austin. Preparatory courses such as COSC 1336 and COSC 1437 will assist students who need additional background but do not apply toward the computer science major requirements.
3. COSC 2325/2425 is not part of the Computer Science major requirements at The University of Texas at Austin, The University of Texas at Dallas, or Texas A&M University but may be applied to general degree requirements.

**Engineering Field of Study**

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.
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.

Did you know that you can also earn an AA or AS degree in addition to the Field of Study certificate? Contact an academic advisor today to learn more about how to develop an educational plan that is right for you.

**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
- MATH 2416 Calculus III
- MATH 2425 University Physics I
- MATH 2426 University Physics II
- 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

**Environmental Science**

Department Website: [http://www.collin.edu/department/environmental/](http://www.collin.edu/department/environmental/)

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.

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.
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

Geology
Department Website:
http://www.collin.edu/geology

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.

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.

Recommended Electives
GEOL 1305 Environmental Science – Natural Disasters
GEOL 1403 Physical Geology
GEOL 1404 Historical Geology
GEOL 1445 Oceanography
GEOL 1447 Introduction to Meteorology
GEOL 2389 Academic Co-op Geology
BIOL 2406 Environmental Biology
CHEM 1411 General Chemistry I
CHEM 1412 General Chemistry II
ENGL 2311 Technical and Business Writing
ENVR 1401 Environmental Science I
MATH 1342 Elementary Statistical Methods
MATH 2413 Calculus I
MATH 2414 Calculus II
PHYS 2425 University Physics I
PHYS 2426 University Physics II

Kinesiology
There is more to sports than just the playing. Kinesiology is the study of the mechanics of the human body.

Kinesiology courses lay the groundwork for a career as a physical therapist, an athletic or personal trainer, or in sports management. They also allow you to learn physical skills and knowledge through the physical education 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 1142 Varsity Conditioning I
KINE 1144 Varsity Sports I
KINE 1304 Personal/Community Health
KINE 1306 First Aid
KINE 1338 Concepts of Physical Fitness
KINE 2142 Varsity Conditioning II
KINE 2144 Varsity Sports II
KINE 2156 Taping and Bandaging
KINE 2356 Care and Prevention of Athletic Injuries

Exercise Science
In these courses, you will gain a greater understanding of the scientific principles needed to optimize sports performance and to improve the functionality and quality of human life.

Recommended Electives
KINE 1301 Foundations of Kinesiology
KINE 1304 Personal/Community Health
KINE 1306 First Aid
KINE 1336 Introduction to Sports Management
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
ACCT 2301 Principles of Financial Accounting
ECON 2301 Principles of Macroeconomics
ECON 2302 Principles of Microeconomics
**Mathematics**  
Department Website:  
http://www.collin.edu/math

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

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.

**Recommended Electives**

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

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

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**Physics**  
Department Website:  
http://faculty.collin.edu/mbrooks/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.

Expand your understanding of physics with courses at Collin College. Knowledge of physics provides a strong background for careers in science, engineering, computer technology or education, and the concepts of physics overlap many disciplines.

**Recommended Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PHYS 103</td>
<td>Stars and Galaxies</td>
</tr>
<tr>
<td>CHEM 1411</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 1412</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>ENGL 2311</td>
<td>Technical and Business Writing</td>
</tr>
<tr>
<td>MATH 2318</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH 2320</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>MATH 2412</td>
<td>Pre-Calculus Math</td>
</tr>
<tr>
<td>MATH 2415</td>
<td>Calculus III</td>
</tr>
</tbody>
</table>

**General Physics Level**

Students seeking baccalaureate degrees in biology or pre-medicine should select general physics courses.

**University Physics Level**

Students seeking advanced degrees in science and engineering fields should select advanced levels of physics and mathematics courses (such as the courses listed below) for the AS degree.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 2425</td>
<td>University Physics I</td>
</tr>
<tr>
<td>PHYS 2426</td>
<td>University Physics II</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 2414</td>
<td>Calculus II</td>
</tr>
</tbody>
</table>
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 lifelong 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.

General Education Component
The 15 credit hours of general education coursework must be distributed as follows:

- 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.

Faculty select the general education courses in each workforce degree to complement the technical courses in the area of study. Some 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

**Natural Sciences / Mathematics Area**
- **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**: GEOL 1401, 1402, 1403, 1404, 1445, 1447
- **Physics**: PHYS 1401, 1402, 1403, 1404, 1405, 1410, 1415, 1417, 2425, 2426

**Humanities / Fine Arts Area**
- **Dance**: DANC 2303
- **English**: ENGL 2322, 2323, 2327, 2328, 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

**Social / Behavioral Sciences Area**
- **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

**Speech Courses**
See the specific degree plan to determine if there is any Speech requirement. Not all AAS degree plans have this requirement.

- **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 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

Animation & Game Art

Also see Video Production

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’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
ARTC 1325 Introduction to Computer Graphics
ARTV 1345 3-D Modeling and Rendering I
ARTV 1371 Storyboard and Concept Development
ENGL 1301 Composition I
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
GEN ED Mathematics/Natural Sciences course

SECOND YEAR
First Semester
ARTV 2345 3-D Modeling and Rendering II
ARTV 2351 3-D Animation II
GAME 2359 Game and Simulation Group Project

or

GAME 1351 Digital Video

Second Semester
ARTV 2335 Portfolio Development for Animation (Capstone)
GAME 2325 3-D Animation II – Character Set-Up
GEN ED Social/Behavioral Sciences course
SPCH 1311 Introduction to Speech Communication (See Speech 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 YEAR
First Semester
ARTV 2345 3-D Modeling and Rendering II
ARTV 2351 3-D Animation II
GAME 2359 Game and Simulation Group Project

or

GAME 1351 Digital Video

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
12 credit hours

ARTV 2371  Advanced Skill Development for Animation and Games
FLMC 2331  Video Graphics and Visual Effects II
ELECTIVE *  
ELECTIVE *

1. Prior to being admitted into this award, the student must have earned an AAS in Animation & Game Art, Graphic Design, or Video Production. Please contact the Associate Dean for additional information.

* Elective (6 credit hours): ARTC 2305, GAME 2309, GAME 2336, GAME 2341, MUSC 1327

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 en 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

BIOL 1414 and BIOL 1415 will transfer to a specific 2+2 baccalaureate program. Please check with your advisor to learn whether these courses will apply to the four-year program of your choice.

First Semester
BIOL 1414  Introduction to Biotechnology I
BIOL 1415  Introduction to Biotechnology II

Second Semester
BIOL 2416  Genetics
BITC 2486  Intership – Biology Technician/Biotechnology Laboratory Technician (Capstone) 1
CHEM 1411  General Chemistry I (moved from 1st semester)

1. May substitute BIOL 2389 or BITC 2441

Certificate Level 2 – Advanced Biotechnology
34 credit hours

Students must be TSI complete.

BIOL 1414 and BIOL 1415 will transfer to a specific 2+2 baccalaureate program. Please check with your advisor to learn whether these courses will apply to the four-year program of your choice.

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

Second Semester
BIOL 1414  Introduction to Biotechnology I
BIOL 1415  Introduction to Biotechnology II
MATH 1314  College Algebra

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 – 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 and transfer to numerous universities in Texas where Collin courses may be applied toward Bachelor of Applied Arts and Sciences (BAAS) and Bachelor of Applied Technology (BAT) degrees.

**AAS – Business Management**

**Human Resources Management Track**

60 credit hours

**FIRST YEAR**

**First Semester**
- BMGT 1307 Team Building
- BMGT 1327 Principles of Management
- BMGT 1341 Business Ethics
- BMGT 2303 Problem Solving and Decision Making
- MATH 1342 Elementary Statistical Methods
  (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
- 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
- BMGT 2311 Change Management
- BMGT 2341 Strategic Management (Capstone)
- ECON 1301 Introduction to Economics
- 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 – 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/department/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; desktop publishing; 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 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 1319 Records and Information Management I
POFT 1329 Beginning Keyboarding

Second Semester
COSC 1301 Introduction to Computing 1
ENGL 1301 Composition I
POFI 2301 Word Processing – MS Word
POFT 2301 Intermediate Keyboarding

Summer Semester
HUMA 1301 Introduction to Humanities I
(See Humanities/Fine Arts options)
SPCH 1311 Introduction to Speech Communication
(See Speech options)

SECOND YEAR
First Semester
ACNT 1311 Introduction to Computerized Accounting
ITSC 1309 Integrated Software Applications I – MS Office
POFI 2331 Desktop Publishing for the Office – MS Office
POFT 2303 Speed and Accuracy Building

Second Semester
ECON 1301 Introduction to Economics
(See Social/Behavioral Sciences options)
ITSW 1304 Introduction to Spreadsheets – Excel
ITSW 1310 Introduction to Presentation Graphics Software 2
MATH 1332 Contemporary Mathematics
(Quantitative Reasoning) 3

Summer Semester
POFT 1349 Administrative Office Procedures II
(Capstone)
POFT 2312 Business Correspondence and Communication

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 \(^1\)
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

Computer Networking

Program Options:
AAS – Computer Networking
- Integrated Networking Technologies Track
- Infrastructure Track
- 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 – Networking Systems Professional (CCNP)
(Shared by Integrated Networking Technologies and Systems Tracks)

Infrastructure Track (Cisco focus)
Certificate Level 1 – Infrastructure Technician (CCNA)
Certificate Level 1 – Wireless Infrastructure Technician
Certificate Level 2 – Infrastructure Administrator

Systems Track (Microsoft focus)
Certificate Level 1 – Systems Software Technician (MCSA)
Certificate Level 1 – Systems Technician
Certificate Level 2 – Systems Administrator
Certificate Level 3 – Networking Systems Professional (CCNP)
(Shared by Integrated Networking Technologies and Systems Tracks)

Wireless Track
Certificate Level 1 – Wireless Designer

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’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 three study tracks: infrastructure, systems and integrated networking technologies. The infrastructure track will prepare you to design and install secure network systems with a focus on managing network devices. The systems track shifts the focus to managing servers. The integrated network technologies track focuses on networking in cloud, storage and virtualization networking technologies.

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.

Students planning to transfer to a college or university should check with a Collin 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), ITSC and ITSY courses are offered in eight-week express sessions.

**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITNW 1358</td>
<td>Network+</td>
<td></td>
</tr>
<tr>
<td>ITCC 1314</td>
<td>CCNA 1: Introduction to Networks</td>
<td></td>
</tr>
<tr>
<td>ITCC 1340</td>
<td>CCNA 2: Routing and Switching Essentials</td>
<td></td>
</tr>
<tr>
<td>ITNW 1370</td>
<td>Cloud+ Computing Essentials</td>
<td></td>
</tr>
<tr>
<td>GEN ED</td>
<td>Mathematics course</td>
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**Second Semester**

<table>
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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ITNW 1351</td>
<td>Fundamentals of Wireless LANS</td>
<td></td>
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<tr>
<td>ITCC* 2312</td>
<td>CCNA 3: Scaling Networks</td>
<td></td>
</tr>
<tr>
<td>ITSC 1316</td>
<td>Linux Installation and Configuration</td>
<td></td>
</tr>
<tr>
<td>ITCC* 2313</td>
<td>CCNA 4: Connecting Networks</td>
<td></td>
</tr>
<tr>
<td>ITCC 2341</td>
<td>CCNA Security</td>
<td></td>
</tr>
<tr>
<td>ITSY 1300</td>
<td>Fundamentals of Information Security (Security+)</td>
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</table>

**SECOND YEAR**

**First Semester**

<table>
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<tbody>
<tr>
<td>ITSY 2300</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td></td>
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<tr>
<td>ITMT 1372</td>
<td>Installation, Storage and Computing with Windows Server 2016</td>
<td></td>
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<tr>
<td>SPCH 1321</td>
<td>Business and Professional Communication</td>
<td></td>
</tr>
<tr>
<td>ITMT 1373</td>
<td>Networking with Windows Server 2016</td>
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**Second Semester**

<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>ITNW 2373</td>
<td>Information Storage Management (EMC)</td>
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<tr>
<td>ITNW 2375</td>
<td>VMWare vSphere: Installation, Configuration and Management</td>
<td></td>
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<tr>
<td>ITNW 2376</td>
<td>Advanced Topics in Computer Systems Networking and Collaborative Technologies (Capstone)</td>
<td></td>
</tr>
<tr>
<td>GEN ED</td>
<td>Humanities/Fine Arts Course</td>
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</tr>
<tr>
<td>GEN ED</td>
<td>Social/Behavioral Sciences Course</td>
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</tbody>
</table>

* **Electives** (6 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CPMT 1305</td>
<td>IT Essentials I: PC Hardware and Software Recommended for students with limited IT</td>
<td></td>
</tr>
<tr>
<td>ITCC 2312</td>
<td>CCNA 3: Scaling Networks Recommended with ITCC 2313</td>
<td></td>
</tr>
<tr>
<td>ITCC 2313</td>
<td>CCNA 4: Connecting Networks Recommended with ITCC 2312</td>
<td></td>
</tr>
<tr>
<td>ITSC 1342</td>
<td>Shell Programming – Scripting New option to meet industry demand</td>
<td></td>
</tr>
</tbody>
</table>

Any ITCC, ITMT, ITNW, or ITSY course not listed above.

**Note:** ITCC 2312 (CCNA 3) and ITCC 2313 (CCNA 4) – or the CCNA professional certification – are prerequisites for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate, but are not part of the Integrated Technologies degree track unless they are selected as electives.
### AAS – Computer Networking – Infrastructure Track (Cisco focus)

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**
- ITNW 1358 Network+
- ITCC 1314 CCNA 1: Introduction to Networks
- ITCC 1340 CCNA 2: Routing and Switching Essentials
- ITNW 1351 Fundamentals of Wireless LANS

**Second Semester**
- ENGL 1330 Composition I
- ITCC 2341 CCNA Security
- ITCC 2312 CCNA 3: Scaling Networks
- ITCC 2313 CCNA 4: Connecting Networks

**ELECTIVE** *

#### Summer Semester
- GEN ED Social/Behavioral Sciences Course
- GEN ED Humanities/Fine Arts Course

#### SECOND YEAR

**First Semester**
- ITMT 1371 Configuring and Supporting Microsoft Windows 10 (70-698)
- ITMT 1372 Installation, Storage and Computing with Windows Server 2016
- ITCC 1314 CCNA 1: Introduction to Networks

**Second Semester**
- ITMT 1373 Networking with Windows Server 2016
- ITMT 1374 Identity with Windows Server 2016
- ITCC* 2312 CCNA 3: Scaling Networks (Preferred elective; see other options*)
- ITSY 1300 Fundamentals of Information Security (Security +)
- ITCC* 2313 CCNA 4: Connecting Networks (Preferred elective; see other options*)

**Summer Semester**
- GEN ED Social/Behavioral Sciences course
- ENGL 1301 Composition I

#### AAS – Computer Networking – Systems Track (Microsoft focus)

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**
- ITNW 1358 Network+
- ITMT 1371 Configuring and Supporting Microsoft Windows 10 (70-698)

**Second Semester**
- ITMT 1372 Installation, Storage and Computing with Windows Server 2016
- ITCC 1314 CCNA 1: Introduction to Networks
- ITCC 1340 CCNA 2: Routing and Switching Essentials

**ELECTIVE** *

#### Summer Semester
- GEN ED Social/Behavioral Sciences Course
- GEN ED Humanities/Fine Arts Course

#### SECOND YEAR

**First Semester**
- GEN ED Mathematics course
- ITSC 1316 Linux Installation and Configuration
- ITSY 2300 Operating System Security
- SPCH 1321 Business and Professional Communication (See Speech Options)

**Second Semester**
- ITMT 2305 Designing and Implementing a Server Infrastructure
- ITMT 2304 Implementing and Advanced Server Infrastructure (Capstone)

**ELECTIVE** *

* **Electives** (6 credit hours)
- CPMT 1305 IT Essentials I: PC Hardware and Software Recommended for students with limited IT
- ITCC 2312 CCNA 3: Scaling Networks Recommended with ITCC 2313
- ITCC 2313 CCNA 4: Connecting Networks Recommended with ITCC 2312
- ITSC 1342 Shell Programming – Scripting New option to meet industry demand

Any ITCC, ITMT, ITNW or ITSY course not listed above.

Note: ITCC 2312 (CCNA 3) and ITCC 2313 (CCNA 4) – or the CCNA or any ITCC, ITMT, ITNW, or ITSY courses not listed in the degree plan.
ITCC 2313  CCNA 4: Connecting Networks
Recommended with ITCC 2312
ITSC 1342  Shell Programming – Scripting
New course to meet industry demand
ITNW 1351  Fundamentals of Wireless LANS Highly Recommended
ITCC 2341  CCNA Security Highly Recommended

Any ITCC, ITMT, ITNW, or ITSY course not listed above.

Note: ITCC 2312 (CCNA 3) and ITCC 2313 (CCNA 4) – or
the CCNA professional certification – are
prerequisites for the CCNP.

AAS – Computer Networking –
Wireless 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
ITCC  1314  CCNA 1: Introduction to Networks
ITCC  1340  CCNA 2: Routing and Switching Essentials
ITNW  1351  Fundamentals of Wireless LANs
ITNW  1358  Network+
GEN ED  Mathematics course

Second Semester
ENGL  1301  Composition I
ITCC  2312  CCNA 3: Scaling Networks
ITCC  2313  CCNA 4: Connecting Networks
ITCC  2341  CCNA Security
ITNW  1378  Wireless Network Administration

SECOND YEAR
First Semester
ENGL  2311  Technical and Business Writing
ITNW  1370  Cloud+ Computing Essentials
ITNW  2371  Wireless Network Security
ITSC  1342  Shell Programming - Scripting
SPCH  1321  Business and Professional Communication

Second Semester
ITNW  2372  Wireless Network Design
ITNW  2374  Emerging Wireless Technology (Capstone)
ITNW  2378  Fundamentals of IoT

GEN ED  Humanities/Fine Arts Course
GEN ED  Social/Behavioral Sciences Course

CHAPTER 1

1. May substitute SPCH 1311 or SPCH 1315

OSA – Entry-Level Network Support
9 credit hours

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

18 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
ITNW  1358  Network+
ITCC  1314  CCNA 1: Introduction to Networks
ITCC  1340  CCNA 2: Routing and Switching Essentials

Second Semester
ITSC  1342  Shell Programming - Scripting
ITNW  2371  Wireless Network Security
ITNW  2374  Emerging Wireless Technology (Capstone)
ITNW  2378  Fundamentals of IoT

CHAPTER 2

1. May substitute SPCH 1311 or SPCH 1315

ITNW  1370  Cloud+ Computing Essentials

Certificate Level 1 – Integrated Networking Technologies Track – Integrated Networking Virtualization and Storage Technician
18 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
ITNW  1358  Network+
ITNW  1370  Cloud+ Computing Essentials
ITMT  1372  Installation, Storage and Computing with Windows Server 2016
Certificate Level 2 – Integrated Networking Technologies Track – Integrated Networking Administrator
45 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
ITNW 1358 Network+
ITCC 1314 CCNA 1: Introduction to Networks
ITCC 1340 CCNA 2: Routing and Switching Essentials
ITNW 1370 Cloud+ Computing Essentials

Second Semester
ITSY 2300 Operating System Security
ITMT 1372 Installation, Storage and Computing with Windows Server 2016
ITCC* 2312 CCNA 3: Scaling Networks Preferred elective; see other options*
ITCC* 2313 CCNA 4: Connecting Networks Preferred elective; see other options*

SECOND YEAR
First Semester
ITNW 1351 Fundamentals of Wireless LANS
ITSC 1316 Linux Installation and Configuration
ITMT 1373 Networking with Windows Server 2016
or
ITSY 1300 Fundamentals of Information Security (Security +)

Second Semester
ITNW 2373 Information Storage Management (EMC)
ITNW 2375 VMware vSphere: Installation, Configuration and Management
ITNW 2376 Advanced Topics in Computer Systems Networking and Collaborative Technologies (Capstone)

* Electives (6 credit hours)
CPMT 1305 IT Essentials I: PC Hardware and Software Recommended for students with limited IT
ITCC 2312 CCNA 3: Scaling Networks Recommended with ITCC 2313

ITCC 2313 CCNA 4: Connecting Networks Recommended with ITCC 2312
ITSC 1342 Shell Programming – Scripting New option to meet industry demand

Any ITCC, ITMT, ITNW, or ITSY course not listed above.
Note: ITCC 2312 (CCNA 3) and ITCC 2313 (CCNA 4) – or the CCNA professional certification – are prerequisites for the CCNP courses in the concurrent or postgraduate Enhanced Skills certificate, but are not part of the Integrated Technologies degree track unless they are selected as electives.

Certificate Level 3 – ESC – Networking Systems Professional (CCNP)
Shared by Integrated Networking Technologies Track and Systems Track

9 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
ITCC 2354 CCNP R&S ROUTE
ITCC 2355 CCNP R&S SWITCH
ITCC 2356 CCNP R&S TSHOOT

Note: CCNA 3 and CCNA 4 – or the professional certification – are prerequisites for the CCNP courses but are not part of the degree tracks unless they are selected as electives.

Infrastructure Track (Cisco Track)

Certificate Level 1 – Infrastructure Track – Infrastructure Technician (CCNA)
18 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
ITNW 1358 Network+
ITCC 1314 CCNA 1: Introduction to Networks
ITCC 1340 CCNA 2: Routing and Switching Essentials

Second Semester
ITCC 2341 CCNA Security
ITCC 2312 CCNA 3: Scaling Networks (Capstone)

ITCC 2313 CCNA 4: Connecting Networks

CPMT 1305 IT Essentials I: PC Hardware and Software Recommended for students with limited IT
ITCC 2312 CCNA 3: Scaling Networks Recommended with ITCC 2313
Certificate Level 1 – Infrastructure Track –
Wireless Infrastructure Technician
18 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**
- ITNW 1358 Network+
- ITCC 1314 CCNA 1: Introduction to Networks
- ITCC 1340 CCNA 2: Routing and Switching Essentials

**Second Semester**
- ITNW 1351 Fundamentals of Wireless LANS
- ITCC 2341 CCNA Security (Capstone)
- ITSY 2300 Operating System Security

Certificate Level 2 – Infrastructure Track –
Infrastructure Administrator
45 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**
- ITNW 1358 Network+
- ITMC 1371 Configuring and Supporting Microsoft Windows 10 (70-698)
- ITMT 1372 Installation, Storage and Computing with Windows Server 2016

**Second Semester**
- ITMT 1373 Networking with Windows Server 2016
- ITMT 1374 Identity with Windows Server 2016
- ITSY 1300 Fundamentals of Information Security (Security+)

* Electives (6 credit hours)
- CPMT 1305 IT Essentials I: PC Hardware and Software (Recommended for students with limited IT experience)
- ITCC 2312 CCNA 3: Scaling Network (Recommended in conjunction with ITCC 2313 CCNA 4)
- ITCC 2313 CCNA 4: Connecting Networks (Recommended in conjunction with ITCC 2312 CCNA 3)
- ITSC 1342 Shell Programming (New to meet industry demand)

Any ITCC, ITMT, ITNW, or ITSY course not listed above.

Systems Track (Microsoft focus)

Certificate Level 1 – Systems Track – Systems Software Technician (MCSA)
18 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**
- ITNW 1358 Network+
- ITMT 1371 Configuring and Supporting Microsoft Windows 10 (70-698)
- ITMT 1372 Installation, Storage and Computing with Windows Server 2016

**Second Semester**
- ITMT 1373 Networking with Windows Server 2016
- ITMT 1374 Identity with Windows Server 2016
- ITSY 1300 Fundamentals of Information Security (Security+)

Certificate Level 1 – Systems Track – Systems 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**
- ITNW 1358 Network+
- ITMT 1371 Configuring and Supporting Microsoft Windows 10 (70-698)
- ITMT 1372 Installation, Storage and Computing with Windows Server 2016

**Second Semester**
- ITMT 1373 Networking with Windows Server 2016
- ITMT 1374 Identity with Windows Server 2016
- ITCC 1314 CCNA 1: Introduction to Networks
### First Semester

**ITNW 1358** Network+
**ITMT 1371** Configuring and Supporting Microsoft Windows 10 (70-698)
**ITMT 1372** Installation, Storage and Computing with Windows Server 2016
**ITCC 1314** CCNA 1: Introduction to Networks

### Second Semester

**ITCC 1340** CCNA 2: Routing and Switching Essentials
**ITMT 1373** Networking with Windows Server 2016
**ITMT 1374** Identity with Windows Server 2016
**ITSY 1300** Fundamentals of Information Security (Security +)

### Certificate Level 2 – Systems Track – Systems Administrator

45 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

- **ITNW 1358** Network+
- **ITMT 1371** Configuring and Supporting Microsoft Windows 10 (70-698)
- **ITMT 1372** Installation, Storage and Computing with Windows Server 2016
- **ITCC 1314** CCNA 1: Introduction to Networks

#### Second Semester

- **ITCC 1340** CCNA 2: Routing and Switching Essentials
- **ITCC 2312** CCNA 3: Scaling Networks Preferred elective; see other options*
- **ITMT 1373** Networking with Windows Server 2016
- **ITCC 1314** CCNA 1: Introduction to Networks

### SECOND YEAR

#### First Semester

- **ITCC 2313** CCNA 4: Connecting Networks Preferred elective; see other options*
- **ITMT 1374** Identity with Windows Server 2016
- **ITSC 1316** Linux Installation and Configuration

#### Second Semester

- **ITSY 2300** Operating System Security
- **ITMT 2305** Designing and Implementing a Server Infrastructure
- **ITMT 2304** Implementing and Advanced Server Infrastructure (Capstone)
- **ELECTIVE * **

* Electives (6 credit hours)
- **CPMT 1305** IT Essentials I: PC Hardware and Software Recommended for students with limited IT
- **ITCC 2312** CCNA 3: Scaling Networks Recommended with ITCC 2313

### Certificate Level 3 – ESC – Networking Systems Professional (CCNP)

9 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

#### First Semester

- **ITCC 2354** CCNP R&S ROUTE
- **ITCC 2355** CCNP R&S SWITCH
- **ITCC 2356** CCNP R&S TSHOOT

* Note: CCNA 3 and CCNA 4 – or the professional certification – are prerequisites for the CCNP courses but are not part of the Systems degree track unless they are selected as electives.

### Certificate Level 1 – Wireless Track – Wireless Designer

42 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

#### First Semester

- **ITCC 1314** CCNA 1: Introduction to Networks
- **ITCC 1340** CCNA 2: Routing and Switching Essentials
- **ITNW 1351** Fundamentals of Wireless LANS Highly Recommended
- **ITCC 2305** Designing and Implementing a Server Infrastructure
- **ITCN 2304** Implementing and Advanced Server Infrastructure (Capstone)
- **ELECTIVE **

* Electives (6 credit hours)
- **ITCC 2312** CCNA 3: Scaling Networks Recommended with ITCC 2313
- **ITCC 2313** CCNA 4: Connecting Networks
- **ITCC 2314** CCNA Security
- **ITNW 1378** Wireless Network Administration
SECOND YEAR
First Semester
ITNW 1370 Cloud+ Computing Essentials
ITNW 2371 Wireless Network Security
ITSC 1342 Shell Programming – Scripting

Second Semester
ITNW 2372 Wireless Network Design
ITNW 2374 Emerging Wireless Technology (Capstone)
ITNW 2378 Fundamentals of IoT

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 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, SQL programming and database management software.

Students planning to transfer to a college or university should check with Collin academic advisors. 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 ¹

**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) ²
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
ECON 1301 Introduction to Economics (See Social/Behavioral Sciences Options)
ENGL 1301 Composition I
ITSW 1310 Introduction to Presentation Graphics Software
GEN ED Mathematics course

**Second Semester**
COSC 1315 Introduction to Computer Programming ¹
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**
BMGT 1307 Team Building
ENGL 2311 Technical and Business Writing
IMED 2309 Internet Commerce ²
ITNW 1358 Network +
ITSW 1307 Introduction to Database – Access

**Second Semester**
ITSC 2380 Cooperative Education – Computer and Information Sciences, General (Capstone) ³
ITSE 2309 Database Programming – SQL
ITSY 1300 Fundamentals of Information Security (Security+)

BUSINESS ELECTIVE ⁴
TECHNICAL ELECTIVE ⁵

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1. May substitute COSC 1336
2. May substitute GISC 1411
3. May substitute INEW 2330 or ITSW 2472 (for students pursuing Data Forensics and Informatics) with consent of Discipline Lead
4. Any BMGT, BUSG, BUSI, IBUS course not listed above, excluding any Cooperative Education or Software Project course
5. Any COSC, GISC, IMED, ITCC, ITMT, ITNW, ITSC, or ITSE course not listed above, excluding any Cooperative Education or Software Project course

### AAS – Computer Systems – Database Development Track
60 credit hours

#### FIRST YEAR
**First Semester**
COSC 1315 Introduction to Computer Programming ¹
ECON 1301 Introduction to Economics (See Social/Behavioral Sciences Options)
ITSW 1304 Introduction to Spreadsheets – Excel
ITSW 1307 Introduction to Database – Access
MATH 1324 Mathematics for Business and Social Sciences (See Mathematics options)

**Second Semester**
COSC 1337 Programming Fundamentals II (Java) ²
ENGL 1301 Composition I
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
GEN ED Speech course

**Second Semester**
ITSC 2380 Cooperative Education – Computer and Information Sciences, General (Capstone) ³
ITSE 2347 Advanced Database Programming
ITSE 2354 Advanced Oracle PL/SQL
ITSY 1300 Fundamentals of Information Security (Security +)

GEN ED Humanities/Fine Arts course

1. May substitute COSC 1336
2. May substitute COSC 1437
3. May substitute INEW 2330 or ITSW 2472 (for students pursuing Data Reporting and Informatics) with consent of Discipline Lead
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)
ITYS  1300  Fundamentals of Information Security (Security+)
MRKG  1301  Customer Relationship Management

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
ITNW  1358  Network+
ITSW  1304  Introduction to Spreadsheets Excel
ITSW  1310  Introduction to Presentation Graphics Software

Second Semester
BMGT  1307  Team Building
ITSC  2380  Cooperative Education – Computer and Information Sciences, General (Capstone)
ITYS  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
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
ITYS  1300  Fundamentals of Information Security (Security+)

1. May substitute COSC-1436
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’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 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**
DFTG 1305 Technical Drafting
DFTG 1309 Basic Computer-Aided Drafting
ENGL 1301 Composition I
MATH 1314 College Algebra  
(See Mathematics/Natural Sciences options)
SPCH 1321 Business and Professional Communication  
(See Speech options)

**Second Semester**
DFTG 1372 SOLIDWORKS Essentials
DFTG 2319 Intermediate Computer-Aided Drafting
DFTG 2328 Architectural Drafting – Commercial
MATH 1316 Plane Trigonometry

**Summer**
GEN ED ELECTIVE *

**SECOND YEAR**
**First Semester**
DFTG 1317 Architectural Drafting – Residential
DFTG 1333 Mechanical Drafting
DFTG 2373 Advanced SOLIDWORKS
PHYS 1401 College Physics I

**Second Semester**
DFTG 2350 Geometric Dimensioning and Tolerancing (Capstone) 1
DFTG 2432 Advanced Computer-Aided Drafting 2
PHYS 1402 College Physics II
GEN ED Social/Behavioral Sciences Course

1. May substitute DFTG 2381
2. May substitute COSC 1420

*Elective Pathways (3 credit hours).
Architectural Options: ARCE 1352 or ARCE 2352
Civil Options: DFTG 2321 or GISC 1411
Mechanical Options: RBTC 1405
General Options: DFTG 1371, COSC 1315, DFTG 1345, ENGL 2311 or ENTC 1323

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**
DFTG 1305 Technical Drafting
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**
DFTG 1305 Technical Drafting
DFTG 1309 Basic Computer-Aided Drafting
ELECTIVE*

**Second Semester**
DFTG 1372 SOLIDWORKS Essentials
DFTG 2319 Intermediate Computer-Aided Drafting
DFTG 2328 Architectural Drafting – Commercial

* Elective Pathways (3 credit hours):
Architectural Options: ARCE 1352
Civil Options: DFTG 2321, GISC 1411
Mechanical Options: RBTC 1405
General Options: COSC 1315, ENTC 1323

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
27 credit hours

FIRST YEAR
First Semester
DFTG 1305  Technical Drafting
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) *

ELECTIVE *

1. May substitute DFTG 2381
* Elective Pathways (3 credit hours):
Architectural Options: ARCE 1352, ARCE 2352
Civil Options: DFTG 2321, GISC 1411
Mechanical Options: DFTG 1333, RBTC 1405
General Options: COSC 1315, ENTC 1323

Construction Management
Program Options:
AAS – Construction Management
Certificate Level 1 – Residential or Commercial Construction Management
Certificate Level 2 – Construction Manager
OSA – Construction Management

Industry experts describe construction management as a combination of various disciplines: architecture, business and engineering. Learn how to manage that process from a business perspective. With this degree you will be prepared to manage people and each part of the construction process: budgeting, scheduling, quality assurance and safety.

AAS – Construction Management
60 credit hours

FIRST YEAR
First Semester
CNBT 1301  Introduction to the Construction Industry
CNBT 1311  Construction Methods and Materials I

ECON 1301  Introduction to Economics
(See Social/Behavioral Sciences options)
MATH 1324  Mathematics for Business and Social Sciences (See Mathematics options)
OSHT 1305  OSHA Regulations – Construction Industry

Second Semester
CNBT 2304  Construction Methods and Materials II
CNBT 2342  Construction Management I
HUMA 1301  Introduction to Humanities (See Humanities/ Fine arts options)
SPCH 1321  Business Professional Communication (see Speech Options)
CNBT 1300  Residential and Light Commercial Blueprint Reading
OR
CNBT 2310  Commercial/Industrial Blueprint Reading

Summer Semester
CNBT 1380  Cooperative Education – Construction Engineering Technology/Technician

SECOND YEAR
First Semester
CNBT 1315  Field Engineering I
CNBT 1346  Construction Estimating I
CNBT 2344  Construction Management II
ENGL 1301  Composition I
CNBT 1302  Mechanical, Plumbing & Electrical in Construction I (Residential)
OR
CNBT 2340  Mechanical, Plumbing & Electrical Systems in Construction II (Commercial)

Second Semester
ARCE 1342  Codes, Specifications, and Contract Documents
CNBT 1359  Project Scheduling
CNBT 2337  Construction Estimating II
CNBT 2346  Construction Management III (Capstone)

Certificate Level 1 – Residential or Commercial Construction Management
30 credit hours

FIRST YEAR
First Semester
CNBT 1301  Introduction to the Construction Industry
CNBT 1311  Construction to Methods and Materials I
CNBT 2342  Construction Management I
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

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’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.
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 1, 2 ~
- CHEF 2331 Advanced Food Preparation ~
- ENGL 1301 Composition I
- HAMG 1321 Introduction to Hospitality Industry~

**Second Semester**
- CHEF 1341 American Regional Cuisine ~
- CHEF 1345 International Cuisine ~
- IFWA 1310 Nutrition and Menu Planning ~
- RSTO 1325 Purchasing for Hospitality Operations ~
- GEN ED Humanities/Fine Arts Course

**Third Semester**
- MATH 1332 Contemporary Mathematics
  (Quantitative Reasoning)
  (See Mathematics options)
- PSTR 1301 Fundamentals of Baking ~

**SECOND YEAR**

**First Semester**
- CHEF 1310 Garde Manger ~
- HAMG 1324 Hospitality Human Resources Management ~
- GEN ED Social/Behavioral Sciences Course
- ELECTIVE *

**Second Semester**
- CHEF 1314 A La Carte Cooking (Capstone)
- CHEF 2380 Cooperative Education – Culinary Arts/Chef Training ~
- RSTO 1304 Dining Room Service
- SPCH 1321 Business and Professional Communication
  (See Speech Options)

~Taught in eight-week format

1. Certification in ServSafe
2. Certification in Food Protection Management

**Certificate Level 1 – Culinary Arts**
24 credit hours

**FIRST YEAR**

**First Semester**
- CHEF 1301 Basic Food Preparation ~
- CHEF 1305 Sanitation and Safety 1, 2 ~
- CHEF 2331 Advanced Food Preparation ~
- PSTR 1301 Fundamentals of Baking ~

**Second Semester**
- CHEF 1310 Garde Manger (Capstone) ~
- CHEF 1341 American Regional Cuisine ~
- CHEF 1345 International Cuisine ~
- IFWA 1310 Nutrition and Menu Planning ~

~Taught in eight-week format

1. Certification in ServSafe
2. Certification in Food Protection Management

**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 2302 Saucier ~
- IFWA 1319 Meat Identifying and Processing~

**Second Semester**
- CHEF 1302 Principles of Healthy Cuisine ~
- CHEF 2336 Charcuterie (Capstone) ~

~Taught in eight-week format
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. A letter of declination must be signed if the candidate is unable to receive the Hepatitis B series.

Applicants who believe they are at an increased risk of contracting an infectious disease should seek testing and counseling prior to making application to the Dental Hygiene Program. All students accepted into the program are expected to follow standard precautions and are financially responsible for any necessary testing/treatment resulting from an occupational incident and/or communicable disease exposure. No student is allowed to deliver patient care in any setting until he/she has mastered material on safety/standard precautions with satisfactory accuracy.

The student is awarded an AAS degree upon successful completion of the program. The graduate is eligible for national and regional examinations.

Students planning to transfer to a college or university should check with Collin 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’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/.

- Provide official copy of High School Diploma or GED
- 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 PSB 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. 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.

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

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIOL 2401</td>
<td>Anatomy and Physiology I 1</td>
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<tr>
<td>BIOL 2402</td>
<td>Anatomy and Physiology II</td>
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<td>BIOL 2420</td>
<td>Microbiology for Non-Science Majors</td>
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<td>CHEM 1405</td>
<td>Introduction to Chemistry I</td>
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FIRST YEAR

First Semester

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>DHYG 1201</td>
<td>Orofacial Anatomy, Histology and Embryology</td>
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<tr>
<td>DHYG 1304</td>
<td>Dental Radiology</td>
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<td>DHYG 1431</td>
<td>Preclinical Dental Hygiene</td>
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<td>ENGL 1301</td>
<td>Composition I</td>
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<td>SPCH 1311</td>
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(See Speech options)

Second Semester

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<tr>
<td>DHYG 1207</td>
<td>General and Dental Nutrition</td>
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<td>DHYG 1219</td>
<td>Dental Materials</td>
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<td>DHYG 1227</td>
<td>Preventive Dental Hygiene Care</td>
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<td>DHYG 1235</td>
<td>Pharmacology for the Dental Hygienist</td>
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<td>DHYG 1261</td>
<td>Clinical I – Dental Hygienist</td>
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<td>PSYC 2301</td>
<td>General Psychology 1</td>
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SECOND YEAR

First Semester

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<td>DHYG 1211</td>
<td>Periodontology</td>
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<tr>
<td>DHYG 1215</td>
<td>Community Dentistry</td>
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<tr>
<td>DHYG 1239</td>
<td>General and Oral Pathology</td>
</tr>
<tr>
<td>DHYG 2153</td>
<td>Dental Hygiene Practice</td>
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<tr>
<td>DHYG 2201</td>
<td>Dental Hygiene Care I</td>
</tr>
<tr>
<td>DHYG 2361</td>
<td>Clinical II – Dental Hygienist</td>
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Second Semester

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<tr>
<td>DHYG 2102</td>
<td>Applied Community Dentistry</td>
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<tr>
<td>DHYG 2231</td>
<td>Dental Hygiene Care II (Capstone)</td>
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<td>DHYG 2363</td>
<td>Clinical III – Dental Hygienist</td>
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<tr>
<td>GEN ED</td>
<td>Humanities/Fine Arts course</td>
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<tr>
<td>SOCI 1301</td>
<td>Introduction to Sociology</td>
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</table>

1. No course substitutions

Diagnostic Medical Sonography

Program Option:
AAS – Diagnostic Medical Sonography

The Diagnostic Medical Sonography program is designed to prepare graduates for employment in the health industry in the sonography profession. An Associate Degree in Applied Science is awarded at completion of the program of study. The student is also eligible to take the American Registry of Diagnostic Medical Sonographers licensing examination for Registered Sonographers (ARDMS). The Sonography program consists of classroom, laboratory and clinical learning experiences.

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) 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).

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 Psychological Services Bureau (PSB) Health Occupations Aptitude Exam.
- 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 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 (Fall)
BIOL 1406 Biology for Science Majors
BIOL 2401 Anatomy and Physiology I
BIOL 2402 Anatomy and Physiology II
ENGL 1301 Composition I
MATH 1314 College Algebra 1
PHYS 1405 Conceptual Physics

FIRST YEAR
First Semester (Spring)
DMSO 1110 Introduction to Sonography
DMSO 1266 Practicum I – Diagnostic Medical Sonography/Sonographer and Ultrasound Technician
DMSO 1341 Abdominopelvic Sonography
DMSO 1355 Sonographic Pathophysiology
PSYC 2301 General Psychology
(See Social/Behavioral Sciences options)

Second Semester (Summer)
DMSO 1166 Practicum 2 – Diagnostic Medical Sonography/Sonographer and Ultrasound Technician
DMSO 2253 Sonography of Superficial Structures

SECOND YEAR (Fall)
First Semester
DMSO 1202 Basic Ultrasound Physics
DMSO 1366 Practicum 3 – Diagnostic Medical Sonography/Sonographer and Ultrasound Technician
DMSO 2405 Sonography of Obstetrics/Gynecology
DSVT 1300 Principles of Vascular Technology

Second Semester (Spring)
DMSO 2243 Advanced Ultrasound and Physics
DMSO 2342 Sonography of High Risk Obstetrics
DMSO 2367 Practicum 4 – Diagnostic Medical Sonography/Sonographer and Ultrasound Technician
DVST 2200 Vascular Technology Applications
GEN ED Humanities/Fine Arts course

Third Semester (Summer)
DMSO 2130 Advanced Ultrasound and Review (Capstone)
DMSO 2267 Practicum 5 – Diagnostic Medical Sonography/Sonographer and Ultrasound Technician

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 child development program at Collin College could be the perfect starting point for you. Early Childhood Educator certificate and degree programs are designed to prepare you to study at a four-year university 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 you will work with. 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.

Collin’s child development program is accredited by the National Association for the Education of Young Children (NAEYC) and is the only program in Texas to have NAEYC accreditation while holding exemplary status with the Texas Higher Education Coordinating Board. 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 academic advisors and the degree requirement 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 Child Development; check with individual colleges for their requirements.

Program Requirements
1. Enroll in a Collin 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’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

FIRST YEAR
First Semester
CDEC 1319  Child Guidance
CDEC 1323  Observation and Assessment
ENGL 1301  Composition I
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
EDUC 1300  Learning Frameworks
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)
GEN ED  Mathematics/Natural Sciences course
GEN ED  Social/Behavioral Sciences course
ELECTIVE 3*

*Elective Sequence 1-3
There are three focus options. You must select ONE focus and complete the three-course sequence.

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

### Summer Semester
- **SPCH 1321** Business and Professional Communication

### Second Year

#### First Semester
- **CETT 2471** Emerging Topics in Engineering Technology
- **INTC 1307** Instrumentation Test Equipment
- **PHYS 1405** Conceptual Physics
- **ELECTIVE *\textsuperscript{*}\)**

#### Second Semester
- **CETT 1457** Linear Integrated Circuits
- **ECON 1301** Introduction to Economics
- **EECT 2439** Communications Circuits (Capstone)
- **ELECTIVE *\textsuperscript{*}\)**

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)
* Electives (6 credit hours): DFTG 1372, EECT 2380, or RBTC 2345, or SUAS 1371

### Certificate Level 1 – Electronic Engineering Technology
34 credit hours

#### First Year

**FIRST YEAR**

**First Semester**
- **CETT 1407** Fundamentals of Electronics
- **CETT 1425** Digital Fundamentals
- **ENGL 1301** Composition I
- **TECM 1343** Technical Algebra and Trigonometry

**Second Semester**
- **CETT 1409** DC-AC Circuits
- **CETT 1445** Microprocessor

### Certificate Level 1 – Electronic Engineering Technology
34 credit hours

#### First Year

**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
- **CETT 1445** Microprocessor

### Second Year

**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’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 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.

**PREREQUISITES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 1160</td>
<td>Clinical – Emergency Medical Technician (EMT Paramedic) – Basic</td>
</tr>
<tr>
<td>EMSP 1371</td>
<td>Introduction to Emergency Medical Technician (EMT)</td>
</tr>
<tr>
<td>EMSP 1501</td>
<td>Emergency Medical Technician</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
</tbody>
</table>

**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2401</td>
<td>Anatomy and Physiology I</td>
</tr>
<tr>
<td>EMSP 1438</td>
<td>Introduction to Advanced Practice</td>
</tr>
<tr>
<td>EMSP 2206</td>
<td>Emergency Pharmacology</td>
</tr>
<tr>
<td>EMSP 1356</td>
<td>Patient Assessment and Airway Management</td>
</tr>
<tr>
<td>KINE 1100</td>
<td>Beginning Weight Training (See Kinesiology Options)</td>
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**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>BIOL 2402</td>
<td>Anatomy and Physiology II</td>
</tr>
<tr>
<td>EMSP 1161</td>
<td>Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced I</td>
</tr>
<tr>
<td>EMSP 2444</td>
<td>Cardiology</td>
</tr>
<tr>
<td>EMSP 2534</td>
<td>Medical Emergencies</td>
</tr>
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</table>

**Summer Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>EMSP 1162</td>
<td>Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced II</td>
</tr>
<tr>
<td>EMSP 1355</td>
<td>Trauma Management</td>
</tr>
</tbody>
</table>

**SECOND YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 2160</td>
<td>Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced III</td>
</tr>
<tr>
<td>EMSP 2305</td>
<td>EMS Operations</td>
</tr>
<tr>
<td>EMSP 2330</td>
<td>Special Populations</td>
</tr>
<tr>
<td>GEN ED</td>
<td>Humanities/Fine Arts course</td>
</tr>
<tr>
<td>GEN ED</td>
<td>Social/Behavioral Sciences course</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 2143</td>
<td>Assessment Based Management (Capstone)</td>
</tr>
<tr>
<td>EMSP 2267</td>
<td>Practicum – Emergency Medical Technician (EMT Paramedic)</td>
</tr>
</tbody>
</table>

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.

<table>
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<tr>
<td>EMSP 1501</td>
<td>Emergency Medical Technician</td>
</tr>
</tbody>
</table>

**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.

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**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>EMSP 1356</td>
<td>Patient Assessment and Airway Management</td>
</tr>
<tr>
<td>EMSP 1438</td>
<td>Introduction to Advanced Practice</td>
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<tr>
<td>EMSP 2206</td>
<td>Emergency Pharmacology</td>
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**Second Semester**

<table>
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<tbody>
<tr>
<td>EMSP 1161</td>
<td>Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced I</td>
</tr>
<tr>
<td>EMSP 1355</td>
<td>Trauma Management</td>
</tr>
<tr>
<td>EMSP 2305</td>
<td>EMS Operations</td>
</tr>
</tbody>
</table>
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.¹

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</table>

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<td>EMSP 1161</td>
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Summer Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 2444</td>
<td>Cardiology</td>
</tr>
</tbody>
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SECOND YEAR

First Semester

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EMSP 1162</td>
<td>Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced II</td>
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Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EMSP 2534</td>
<td>Medical Emergencies</td>
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<td>EMSP 2330</td>
<td>Special Populations</td>
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<td>Clinical – Emergency Medical Technician (EMT Paramedic) – Advanced III</td>
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Summer Semester

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</table>

¹ A student that has the EMT – Basic certification has met this requirement.

Fire Academy

Also see Fire Science

Program Options:
AAS – Basic Firefighter Certification
Certificate Level 1 – Basic Firefighter

Collin College's Fire Academy is one of the most highly-regarded programs in the state. Fire Academy graduates from Collin College can be found throughout Texas – all of them making a difference in their communities.

This certification program was developed to prepare 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.

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 are accepted into the Fire Academy on a competitive basis. Students interested in enrolling in the Fire Academy should contact the Fire Science Office at 972.548.6836. Fire Academy application packets may be printed from the Fire Science website: http://www.collin.edu/firescience or students may pick-up an application at either the Fire Science or Advising Office. Students may request to receive an application by mail.

Students planning to transfer to a college or university should check with Collin 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

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 Reading Comprehension test (Minimum score 78)
- Complete ACCUPLACER Arithmetic test (Minimum score 78)
- 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 – Basic Firefighter Certification
60 credit hours

FIRST YEAR
First Semester
CHEM 1405 Introduction to Chemistry I
ENGL 1301 Composition I
FIRT 1301 Fundamentals of Fire Protection
MATH 1332 Contemporary Mathematics (Quantitative Reasoning)
(See Mathematics options)

Second Semester
EMSP 1160 Clinical – Emergency Medical Technician (EMT Paramedic) – Basic
EMSP 1371 Introduction to Emergency Medical Technician (EMT)
EMSP 1501 Emergency Medical Technician
FIRT 1315 Hazardous Materials I
GOVT 2306 Texas Government (Texas constitution and topics)
GEN ED Humanities/Fine Arts course

SECOND YEAR
First Semester
FIRS 1301 Firefighter Certification I
FIRS 1407 Firefighter Certification II

Second Semester
FIRS 1313 Firefighter Certification III
FIRS 1319 Firefighter Certification IV
FIRT 1327 Building Construction in the Fire Service

Fire Science
Also see Fire Academy

Program Options:
AAS – Fire Officer Certification
OSA – Fire Officer Candidate
Certificate Level 1 – Fire Officer

1. A student that has the EMT – Basic certification has met this requirement.
2. No substitutions

Also see Fire Academy

Department Website:
http://www.collin.edu/firescience

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 the technical knowledge needed to combat the fire problems created by modern living and develop leadership skills required of a Fire Officer.

The program meets the requirements of the Texas Commission on Fire Protection (TCFP). Students certified in Texas as a Basic Firefighter are eligible to take the State Certification Exams for Fire Instructor I, II; and Fire Officer I, II after successfully completing selected courses in the Fire Officer Certificate program.

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.

Full-time, full-paid firefighters employed by any political subdivision or active volunteer firefighters meeting the firefighter exemption criteria enrolled in Collin’s Fire Science program may be exempt from paying tuition and laboratory fees for select credit courses.

Students planning to transfer to a college or university should check with Collin 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**

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

### AAS – Fire Officer Certification

60 credit hours

#### FIRST YEAR

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ECON 1301</td>
<td>Introduction to Economics ¹</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (See Mathematics options)</td>
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<tr>
<td>PSYC 2301</td>
<td>General Psychology ²</td>
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**Second Semester**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CHEM 1405</td>
<td>Introduction to Chemistry I ³</td>
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<tr>
<td>FIRT 1315</td>
<td>Hazardous Materials I</td>
</tr>
<tr>
<td>GOVT 2306</td>
<td>Texas Government (Texas constitution and topics)</td>
</tr>
<tr>
<td>SPCH 1311</td>
<td>Introduction to Speech Communication (See Speech Options)</td>
</tr>
<tr>
<td>GEN ED</td>
<td>Humanities/Fine Arts course</td>
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### SECOND YEAR

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENGL 2311</td>
<td>Technical and Business Writing</td>
</tr>
<tr>
<td>FIRT 1327</td>
<td>Building Construction in the Fire Service</td>
</tr>
<tr>
<td>FIRT 1442</td>
<td>Fire Officer I</td>
</tr>
<tr>
<td>FIRT 2305</td>
<td>Fire Instructor I</td>
</tr>
<tr>
<td>FIRT 2309</td>
<td>Firefighting Strategies and Tactics I</td>
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**Second Semester**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>FIRT 1338</td>
<td>Fire Protection Systems</td>
</tr>
<tr>
<td>FIRT 1349</td>
<td>Fire Administration II (Capstone)</td>
</tr>
<tr>
<td>FIRT 1443</td>
<td>Fire Officer II</td>
</tr>
<tr>
<td>FIRT 2307</td>
<td>Fire Instructor II</td>
</tr>
<tr>
<td>FIRT 2351</td>
<td>Company Fire Officer</td>
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</table>

1. May substitute ECON 2301 or ECON 2302
2. May substitute ANTH 2302, ANTH 2346, ANTH 2351, GOVT 2303, HIST 1301, HIST 1302, HIST 2301, SOCI 1301 or SOCI 1306
3. May substitute BIOL 1408

### OSA – Fire Officer Candidate

10 credit hours

<table>
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<tr>
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<tbody>
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<td>FIRT 1442</td>
<td>Fire Officer I</td>
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<tr>
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<td>Firefighting Strategies and Tactics I</td>
</tr>
</tbody>
</table>
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)

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) uses hardware, software and data to analyze and display location-based information. Learn how to harness that data to solve spatial problems in business, government, environmental studies and geological studies, etc., and present the information in a way that is easy to understand and interpret. GIS specialties include remote sensing, geospatial intelligence and image analysis.

AAS – Geospatial Information Science (GIS)
60 credit hours

FIRST YEAR
First Semester
COSC 1315 Introduction to Computer Programming
ENGL 1301 Composition I
GISC 1411 Introduction to Geographic Information Systems (GIS)
GISC 2402 Geographic Information Systems (GIS) Design with Raster Analysis

Second Semester
DFTG 1309 Basic Computer-Aided Drafting
GISC 2335 Programming for Geographic Information Systems (GIS) 1
GISC 2420 Intermediate Geographic Information Systems (GIS)
ITSE 1311 Beginning Web Programming
GEN ED Mathematics/Natural Sciences

SECOND YEAR
First Semester
ENGL 2311 Technical and Business Writing
GISC 1301 Cartography and Geography in Geographical Information Systems (GIS) and Global Positioning Systems
ITSW 1304 Introduction to Spreadsheets – Excel
ITSW 1307 Introduction to Database – Access
GEN ED Humanities/Fine Arts

Second Semester
DFTG 2321 Topographical Drafting
GISC 2172 Geospatial Information Systems Portfolio Development
GISC 2231 Advanced Problems in Geographic Information Systems (GIS) (Capstone)
GEN ED Speech
GEN ED Social/Behavioral Sciences
ELECTIVE *

1. May substitute COSC 1336, 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

* Elective (3 credit hours): BIOL 2406, ENVR 1401, any GEOG, or any GEOL

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

Second Semester
GISC 2335 Programming for Geographic Information Systems (GIS) 2, 3
GISC 2420 Intermediate Geographic Information Systems (GIS)

Third Semester
GISC 2231 Advanced Problems in Geographic Information Systems (GIS) (Capstone) 4

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
Graphic Design

Program Options:
AAS – Graphic Design
Certificate Level 1 – Graphic Design
Certificate Level 3 – ESC – Advanced Design
Illustration
Certificate Level 3 – ESC – Motion Graphics
Certificate Level 3 – ESC – User Experience Design

Want to see what is possible with a career in graphic design? Just look around. Graphic designers provide the visual landscape of our lives, from the art that hangs on our walls to commercial packaging and advertising materials.

Your career in graphic design starts in Collin College’s Communication Design department, where you will learn traditional graphic design and art direction concepts that can be molded to meet your career needs. You will learn graphic design for print and/or web work, with an emphasis on strong concept development and production techniques, while exploring areas including website development, animation and interactive media.

In addition to the Associate of Applied Science degree program, the college offers multiple certificates in including advanced design illustration, motion graphics and user experience design.

AAS – Graphic Design
60 credit hours

FIRST YEAR
First Semester
ARTC 1305 Basic Graphic Design
ARTC 1325 Introduction to Computer Graphics
ARTS 1316 Drawing I
ARTV 1371 Storyboard and Concept Development
GEN ED Mathematics/Natural Sciences course

Second Semester
ARTC 1302 Digital Imaging I
ARTC 1317 Design Communication I
ARTC 1327 Typography
ARTC 1353 Computer Illustration I
ENGL 1301 Composition I

Third Semester
FILMC 1331 Video Graphics and Visual Effects I
SPCH 1311 Introduction to Speech Communication (See Speech Options)

SECOND YEAR
First Semester
ARTC 1313 Digital Publishing I
ARTC 1349 Art Direction I

ARTC 2311 History of Communication Graphics
IMED 1316 Web Design I

Second Semester
ARTS 1301 Art Appreciation (see Humanities/Fine Arts options)
ARTC 2335 Portfolio Development for Graphic Design (Capstone)

GEN ED Social/Behavioral Sciences course
ARTC 2347 Design Communication II
or
IMED 2315 Web Design II

Certificate Level 1 – Graphic Design
42 credit hours

FIRST YEAR
First Semester
ARTC 1305 Basic Graphic Design
ARTC 1325 Introduction to Computer Graphics
ARTS 1316 Drawing I
ARTV 1371 Storyboard and Concept Development

Second Semester
ARTC 1302 Digital Imaging I
ARTC 1317 Design Communication I
ARTC 1327 Typography
ARTC 1353 Computer Illustration I

SECOND YEAR
First Semester
ARTC 1313 Digital Publishing I
ARTC 1349 Art Direction I
ARTC 2311 History of Communication Graphics
IMED 1316 Web Design I

Second Semester
ARTC 2335 Portfolio Development for Graphic Design (Capstone)
ARTC 2347 Design Communication II
or
IMED 2315 Web Design II

Certificate Level 3 – ESC – Advanced Design Illustration
12 credit hours

ARTC 1321 Illustration Techniques I
ARTC 2305 Digital Imaging II
ARTC 2340 Computer Illustration II
ELECTIVE *

* Elective (3 credit hours): ARTS 1317, ARTS 2323, ARTS 2348

1. Prior to being admitted into any of these awards, the student must have earned an AAS in Graphic Design, Animation, or Digital Video. Please contact the Associate Dean for Additional information.
Certificate Level 3 – ESC – Motion Graphics

12 credit hours

MUSC 1327 Audio Engineering I
ARTV 1345 3-D Modeling and Rendering I
ARTV 1351 Digital Video
FLMC 2331 Video Graphics and Visual Effects II

1. Prior to being admitted into any of these awards, the student must have earned an AAS in Graphic Design, Animation, or Digital Video. Please contact the Associate Dean for Additional information.

Certificate Level 3 – ESC – User Experience Design

9 credit hours

ARTC 2349 Art Direction II
ARTC 2371 User Experience Design
ELECTIVE *

* Elective (3 credit hours): ARTC 2305 or ARTC 2340

1. Prior to being admitted into any of these awards, the student must have earned an AAS in Graphic Design, Animation, or Digital Video. Please contact the Associate Dean for Additional information.

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 (two academic years) degree program preparing students for a career in health information management, as a health information professional. The program has been accredited by the Commission on Accreditation for Health Informatics and Information Management (CAHIIM) 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 the professional signature. 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. The program requires selective admission.

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 credit and allows Collin students to complete some BS courses at Collin with Collin’s lower tuition costs. For more information, see your Collin 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

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 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, HITT 2471 and BIOL 2404.
- Successful completion of a 60% or higher on the Test of Essential Academic Skills (TEAS), prior to Application Deadline, with satisfactory results. Registration details on the department webpage www.collin.edu/him
- Complete HIM packet.
- A complete HIM packet includes:
  o Completed HIM Application:
  o Consent for background check
  o Consent for drug screening
  o 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.
  o 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.
  o 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.

**AAS – Health Information Management**

60 credit hours

**PREREQUISITES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>HITT 1305</td>
<td>Medical Terminology I</td>
</tr>
<tr>
<td>HITT 2471</td>
<td>Pathophysiology and Pharmacology</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology</td>
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(See Social/Behavioral Sciences options)

**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIOL 2404</td>
<td>Human Anatomy and Physiology Basic 1</td>
</tr>
<tr>
<td>HUMA 1301</td>
<td>Introduction to Humanities I</td>
</tr>
<tr>
<td>(See Humanities/Fine Arts options)</td>
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</tr>
<tr>
<td>HITT 1301</td>
<td>Health Data Content and Structure</td>
</tr>
<tr>
<td>HITT 1311</td>
<td>Health Information Systems</td>
</tr>
<tr>
<td>ITCW 1304</td>
<td>Introduction to Spreadsheets - Excel</td>
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</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>HITT 1353</td>
<td>Legal and Ethical Aspects of Health Information</td>
</tr>
<tr>
<td>HITT 2435</td>
<td>Coding and Reimbursement Methodologies</td>
</tr>
<tr>
<td>ITCW 1307</td>
<td>Introduction to Database - Access</td>
</tr>
<tr>
<td>MATH 1342</td>
<td>Elementary Statistical Methods</td>
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**SECOND YEAR**

**First Semester**

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HITT 2339</td>
<td>Health Information Organization and Supervision</td>
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<tr>
<td>HITT 2346</td>
<td>Advanced Medical Coding</td>
</tr>
<tr>
<td>HITT 2443</td>
<td>Quality Assessment and Performance Improvement</td>
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<tr>
<td>ITCW 2309</td>
<td>Database Programming – SQL</td>
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**Second Semester**

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HITT 2272</td>
<td>Portfolio Development 2</td>
</tr>
<tr>
<td>HITT 2361</td>
<td>Clinical - Health Information / Medical Records Technology/Technician (Capstone)</td>
</tr>
</tbody>
</table>

1. Substitutions may be available on a case-by-case basis. Please see Director for information.

2. May substitute ITCW 2272

**Certificate Level 2 – Health Information Foundations for Data Forensics and Informatics**

18 credit hours

(Designed for the IT person interested in moving into Health Information Management and Reporting)

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>HITT 1305</td>
<td>Medical Terminology I</td>
</tr>
<tr>
<td>HITT 1301</td>
<td>Health Data Content and Structure</td>
</tr>
<tr>
<td>HITT 1311</td>
<td>Health Information Systems</td>
</tr>
<tr>
<td>HITT 2435</td>
<td>Coding and Reimbursement Methodologies</td>
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</table>

**Second Semester**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MATH 1342</td>
<td>Elementary Statistical Methods</td>
</tr>
<tr>
<td>HITT 2272</td>
<td>Portfolio Development (Capstone)</td>
</tr>
</tbody>
</table>
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

The Medical Coding and Billing Certificate is a 30 credit hour on-line program that will prepare the student for workforce as a medical coder/biller. The curriculum is based on the American Health Information Management Association’s (AHIMA) competencies.

Students planning to transfer to a college or university should check with Collin 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 2471 Pathophysiology and Pharmacology

FIRST YEAR
First Semester
HITT 1301 Health Data Content and Structure
HITT 1311 Health Information Systems

Second Semester
HITT 1353 Legal and Ethical Aspects of Health Information
HITT 2346 Advanced Medical Coding (Capstone)
HITT 2435 Coding and Reimbursement Methodologies

Health Professions

Department Website:
http://www.collin.edu/department/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
- Patient Care Technician (PCT) Track
- Phlebotomy Technician (PHLEB) Track

Certificate Level 1 – Health Professions

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. All offer an in-depth education with hands-on experience, thanks to staff that has worked in the field and state-of-the-art simulation equipment that puts our students in reality-based training scenarios.

The variety of options in Health Professions also allows you to build your knowledge and skills as you progress through the different levels of awards. You can earn occupational skills awards (OSA) and certificates on your way to an Associate of Applied Science in Health Professions, providing you with the chance to work in your field 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 McKinney Campus and through dual credit at select high schools. For additional information, please visit the website at http://www.collin.edu/department/healthprofessions/.

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 1406  Biology for Science Majors I
ENGL 1301  Composition I
GOVT 2305  Federal Government (Federal constitution and topics) 1
HIST 1301  United States History I
HITT 1305  Medical Terminology I

Second Semester
ENGL 1302  Composition II
PSYC 2301  General Psychology 2
HPRS 1204  Basic Health Profession Skills 3
HPRS 2232  Health Care Communications
SPCH 1311  Introduction to Speech Communication
(See Speech Options)

Summer Semester
MATH 1314  College Algebra
(See Mathematics options)

SECOND YEAR
First Semester
HITT 1353  Legal and Ethical Aspects of Health Information
HPRS 1303  End of Life Issues
HPRS 2301  Pathophysiology
NURA 1301  Nurse Aide for Health Care

Second Semester
HITT 1345  Health Care Delivery Systems
HITT 2328  Introduction to Public Health
HPRS 1310  Introduction to Pharmacology
NURS 1140  Clinical – Nursing Aide and Patient Care Assistant

GEN ED  Humanities/Fine Arts course

Summer Semester
HPRS 2374  Trends in Healthcare (Capstone)

1. May substitute ECON 1301, ECON 2301, or ECON 2302
2. May substitute ANTH 2302, ANTH 2346, ANTH 2351, HIST 1302, HIST 2301, SOCI 1301, or SOCI 1306
3. May substitute HPRS 1271

AAS – Health Professions - Electrocardiograph Technician (EKG) Track
60 credit hours

FIRST YEAR
First Semester
BIOL 1406  Biology for Science Majors I
ENGL 1301  Composition I
GOVT 2305  Federal Government (Federal constitution and topics) 1
HIST 1301  United States History I
HITT 1305  Medical Terminology I

Second Semester
ENGL 1302  Composition II
PSYC 2301  General Psychology 2
HPRS 1204  Basic Health Profession Skills 3
HPRS 2232  Health Care Communications
SPCH 1311  Introduction to Speech Communication
(See Speech Options)

Summer Semester
MATH 1314  College Algebra
(See Mathematics options)

SECOND YEAR
First Semester
DSAE 1340  Diagnostic Electrocardiography
ECRD 1111  Electrocardiography
HITT 1353  Legal and Ethical Aspects of Health Information
HPRS 1303  End of Life Issues
HPRS 2301  Pathophysiology

Second Semester
HITT 1345  Health Care Delivery Systems
HITT 2328  Introduction to Public Health
HPRS 1310  Introduction to Pharmacology
NURS 1140  Clinical – Nursing Aide and Patient Care Assistant

GEN ED  Humanities/Fine Arts course
Summer Semester
HPRS 2374 Trends in Healthcare (Capstone)

1. May substitute ECON 1301, ECON 2301, ECON 2302
2. May Substitute ANTH 2302, ANTH 2346, ANTH 2351, HIST 1302, HIST 2301, SOCI 1301 or SOCI 1306
3. May substitute HPRS 1271

AAS – Health Professions - Emergency Medical Technician (EMT) Track
60 credit hours

FIRST YEAR
First Semester
BIOL 1406 Biology for Science Majors I
ENGL 1301 Composition I
GOVT 2305 Federal Government (Federal constitution and topics) 1
HIST 1301 United States History I
HITT 1305 Medical Terminology I

Second Semester
ENGL 1302 Composition II
PSYC 2301 General Psychology 2
HPRS 1204 Basic Health Profession Skills 3
HPRS 2232 Health Care Communications
SPCH 1311 Introduction to Speech Communication (See Speech Options)

Summer Semester
MATH 1314 College Algebra (See Mathematics options)

SECOND YEAR
First Semester
EMSP 1160 Clinical – Emergency Medical Technician (EMT Paramedic) – Basic
EMSP 1371 Introduction to Emergency Medical Technician (EMT)
EMSP 1501 Emergency Medical Technician
HITT 1353 Legal and Ethical Aspects of Health Information

Second Semester
HITT 1345 Health Care Delivery Systems
HPRS 1191 Special Topics in Health Professions and Related Sciences, Other
HPRS 1310 Introduction to Pharmacology
HPRS 2301 Pathophysiology
GEN ED Humanities/Fine Arts course

Summer Semester
HPRS 2374 Trends in Healthcare (Capstone)

1. May substitute ECON 1301, ECON 2301, ECON 2302
2. May substitute ANTH 2302, ANTH 2346, ANTH 2351, HIST 1302, HIST 2301, SOCI 1301 or SOCI 1306
3. May substitute HPRS 1271
AAS – Health Professions - Phlebotomy Technician (PHLEB) Track
60 credit hours

FIRST YEAR
First Semester
BIOL 1406  Biology for Science Majors I
ENGL 1301  Composition I
GOVT 2305  Federal Government (Federal constitution and topics) ¹
HIST 1301  United States History I
HITT 1305  Medical Terminology I

Second Semester
ENGL 1302  Composition II
PSYC 2301  General Psychology ²
HPRS 1204  Basic Health Profession Skills ³
HPRS 2252  Health Care Communications
SPCH 1311  Introduction to Speech Communication
(See Speech Options)

Summer Semester
MATH 1314  College Algebra
(See Mathematics options)

SECOND YEAR
First Semester
HITT 1353  Legal and Ethical Aspects of Health Information
HITT 2328  Introduction to Public Health
HPRS 1303  End of Life Issues
HPRS 2301  Pathophysiology

Second Semester
HITT 1345  Health Care Delivery Systems
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 ECON 1301, ECON 2301, or ECON 2302
2. May substitute ANTH 2302, ANTH 2346, ANTH 2351, HIST 1302, HIST 2301, SOCI 1301, or SOCI 1306
3. May substitute HPRS 1271

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
9 credit hours

HITT 1305  Medical Terminology I
HPRS 1271  Introduction to the Healthcare System ¹
NURA 1160  Clinical – Nursing Aide and Patient Care Assistant
NURA 1301  Nurse Aide for Health Care

1. May substitute HPRS 1204

OSA – Health Professions - Electrocardiograph Technician (EKG) Track
9 credit hours

DSAE 1340  Diagnostic Electrocardiography
ECRD 1111  Electrocardiography
HITT 1305  Medical Terminology I
HPRS 1271  Introduction to the Healthcare System ¹

1. May substitute HPRS 1204

OSA – Health Professions - Phlebotomy (PHLEB) Track
9 credit hours

DSAE 1340  Diagnostic Electrocardiography
ECRD 1111  Electrocardiography
HITT 1305  Medical Terminology I
PLAB 1323  Phlebotomy
PLAB 1360  Clinical – Phlebotomy

1. May substitute HPRS 1204

OSA – Patient Care Technician (PCT) Track
This award requires successful CNA, PHLEB and EKG course completion.
12 credit hours

DSAE 1340  Diagnostic Electrocardiography
ECRD 1111  Electrocardiography
NURA 1160  Clinical – Nursing Aide and Patient Care Assistant
NURA 1301  Nurse Aide for Health Care
PLAB 1323  Phlebotomy
PLAB 1360  Clinical – Phlebotomy

Certificate Level 1 – Health Professions - Certified Nurse Aide (CNA) Track
15 credit hours

FIRST YEAR
First Semester
HPRS 1204  Basic Health Profession Skills ¹
HITT 1305  Medical Terminology I
Second Semester
NURA 1301 Nurse Aide for Health Care
ELECTIVE *
ELECTIVE *

Third Semester
NURA 1160 Clinical – Nursing Aide and Patient Care Assistant (Capstone)

1. May substitute HPRS 1271

* Elective (6 credit hours): HITT 1311, HITT 1345, HITT 1353, HITT 2328, HPRS 1303, HPRS 1310, HPRS 2232, HPRS 2301

Certificate Level 1 – Health Professions – Electrocardiograph Technician (EKG) Track
15 credit hours

FIRST YEAR
First Semester
HPRS 1204 Basic Health Profession Skills 1
HITT 1305 Medical Terminology I

Second Semester
DSAE 1340 Diagnostic Electrocardiography (Capstone)
ECRD 1111 Electrocardiography
ELECTIVE *
ELECTIVE *

1. May substitute HPRS 1271

* Elective (6 credit hours): HITT 1311, HITT 1345, HITT 1353, HITT 2328, HPRS 1303, HPRS 1310, HPRS 2232, HPRS 2301

Certificate Level 1 – Health Professions-Patient Care Technician (PCT) Track
17 credit hours

FIRST YEAR
First Semester
HPRS 1204 Basic Health Profession Skills 1
HITT 1305 Medical Terminology I

Second Semester
DSAE 1340 Diagnostic Electrocardiography
ECRD 1111 Electrocardiography
PLAB 1160 Clinical – Phlebotomy
PLAB 1323 Phlebotomy
NURA 1301 Nurse Aide for Health Care

Summer Semester
NURA 1160 Clinical – Nursing Aide and Patient Care Assistant (Capstone)

1. May substitute HPRS 1271

Certificate Level 1 – Health Professions-Phlebotomy Technician (PHLEB) Track
15 credit hours

FIRST YEAR
First Semester
HPRS 1204 Basic Health Profession Skills 1
HITT 1305 Medical Terminology I

Second Semester
PLAB 1160 Clinical – Phlebotomy (Capstone)
PLAB 1323 Phlebotomy
ELECTIVE *
ELECTIVE *

1. May substitute HPRS 1271

* Elective (6 credit hours): HITT 1311, HITT 1345, HITT 1353, HITT 2328, HPRS 1303, HPRS 1310, HPRS 2232, HPRS 2301

Certificate Level 1 – Emergency Medical Technician (EMT)
16 credit hours

FIRST YEAR
First Semester
BIOL 2404 Human Anatomy and Physiology Basic
HITT 1305 Medical Terminology I
EMSP 1160 Clinical – Emergency Medical Technician (EMT Paramedic) – Basic (Capstone)
EMSP 1371 Introduction to Emergency Medical Technician (EMT)
EMSP 1501 Emergency Medical Technician

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 – Hotel / Restaurant Management Certificate Level 1 – Meetings and Event Management

No matter where you may move in life, there will be a market for hospitality and food service employees. A degree in hospitality and food service management will prepare you for a career in the largest service industry in the world, with the knowledge and the skills to manage hotels, restaurants, tour attractions or other businesses. The program offers two concentrations, one in hotel and
restaurant management, and the other in meeting and
event management.

A part of the 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.

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.

Day and night classes are open-entry courses that provide
a flexible schedule and meet a variety of individual needs.

ACCREDITATION
The Hospitality & Foodservice Management program is
accredited by the Accreditation Commission for 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 academic advisors. 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 1, 2
ENGL 1301 Composition I
HAMG 1321 Introduction to Hospitality Industry ~
HAMG 1340 Hospitality Legal Issues

Second Semester
TRVM 2301 Introduction to Convention/Meeting
Management ~

HAMG 1313 Front Office Management ~
HAMG 1324 Hospitality Human Resources
Management ~
HAMG 2337 Hospitality Facilities Management ~
GEN ED Humanities/Fine Arts course
RSTO 1325 Purchasing for Hospitality Operations ~

Third Semester
MATH 1332 Contemporary Mathematics
(Quantitative Reasoning)
(See Mathematics options)
GEN ED Social/Behavioral Sciences 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 Business and Professional
Communication
(See Speech Options)

Second Semester
HAMG 2305 Hospitality Management and Leadership
(Capstone) ~
HAMG 2332 Hospitality Financial Management ~
RSTO 2307 Catering
ELECTIVE *

~ Offered in eight-week format
1. Certification in ServSafe
2. Certification in Food Protection Management

*Elective (3 Credit Hours) CHEF 1301, CHEF 1305, HAMG
1313~, HAMG 2337~ or PSTR 1301~

AAS – Hospitality and Food Service
Management – Meetings and Event
Management Track
60 credit hours

FIRST YEAR
First Semester
ENGL 1301 Composition I
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

GEN ED    Humanities/Fine Arts course
HAMG 1324  Hospitality Human Resources Management ~
TRVM 1323  Group Tour Operations ~
TRVM 2341  International Convention/Meeting Management ~
TRVM 2355  Exposition and Trade Show Operations ~

Third Semester

GEN ED    Social/Behavioral Sciences course
MATH 1332  Contemporary Mathematics (Quantitative Reasoning)
           (See Mathematics options)

SECOND YEAR

First Semester

HAMG 2301  Principles of Food and Beverage Operations ~
HAMG 2307  Hospitality Marketing and Sales ~
SPCH 1321  Business and Professional Communication (See Speech 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 ~

~Offered in eight-week format

* Elective (3 credit hours): CHEF 1301, CHEF 1305, HAMG 1313 ~, HAMG 2337 ~ or PSTR 1301 ~

Certificate Level 1 – Hotel / Restaurant Management
21 credit hours

FIRST YEAR

First Semester

CHEF 1305  Sanitation and Safety 1,2 ~
HAMG 1321  Introduction to Hospitality Industry ~
HAMG 1340  Hospitality Legal Issues
RSTO 1325  Purchasing for Hospitality Operations ~

Second Semester

HAMG 1324  Hospitality Human Resources Management ~
HAMG 2337  Hospitality Facilities Management ~ (Capstone)
HAMG 1313  Front Office Management ~

HAMG 2301  Principles of Food and Beverage Operations ~
1. Certification in ServSafe
2. Certification in Food Protection Management
~Offered in eight-week format

Certificate Level 1 – Meetings and Event Management
21 credit hours

Second Semester

TRVM 1323  Group Tour Operations ~
TRVM 2341  International Convention/Meeting Management ~ (Capstone)
TRVM 2355  Exposition and Trade Show Operations ~
~Offered in eight-week format

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 academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

**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 Business and Professional Communication (See Speech options)

*Second 8 Weeks*
- HART 2334 Advanced A/C Controls
- HART 2343 Industrial Air Conditioning

**Second Semester**
- ECON 1301 Introduction to Economics
- ENGL 1301 Composition I
- HART 2358 Testing, Adjusting, and Balancing HVAC Systems (Capstone)
- GEN ED Humanities/Fine Arts course
- GEN ED Mathematics course

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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

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Students planning to transfer to a college or university should check with the Collin academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.
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 Business and Professional Communication (See Speech options)

Second 8 Weeks
HART 2334 Advanced A/C Controls
HART 2343 Industrial Air Conditioning

Verification of Workplace Competencies: Obtaining Industry Certification (NATE)

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’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 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
ITNW 1358 Network +
CPMT 1305 IT Essentials I: PC Hardware and Software
ITMT 1371 Configuring and Supporting Microsoft Windows 10 (70-698)
ITMT 1372 Installation, Storage and Computing With Windows
GEN ED Mathematics course

Second Semester
GEN ED Social/Behavioral Sciences course
ITCC 1314 CCNA 1: Cisco – Introduction to Networks
ITSC 1316 Linux Installation and Configuration
ELECTIVE *

Summer
ENGL 1301 Composition I
ITCC 1340 CCNA 2: Routing and Switching Essentials

SECOND YEAR
First Semester
ITSY 2300 Operating System Security
ITSY 2301 Firewalls and Network Security
ITSY 2342 Incident Response and Handling
ELECTIVE *

Second Semester
GEN ED Humanities/Fine Arts course
ITSY 2341 Security Management Practices (Capstone)
ITSY 2343 Computer System Forensics
SPCH 1321 Business and Professional Communication (See Speech Options)

* Electives (6 credit hours): ITSY 1300 (recommended) or 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: Cisco – Introduction to Networks
ITMT 1372 Installation, Storage and Computing with Windows Server 2016
ITNW 1358 Network +

Second Semester
ITCC 1340 CCNA 2: Routing and Switching Essentials
ITMT 1373 Networking with Windows Server 2016

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): ITMT 2304, 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 +

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

Interior Design

Program Options:
AAS – Interior Design
OSA – Interior Design
Certificate Level 1 – Interior Design
Certificate Level 1 – Advanced Interior Design

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 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. Please call 972.377.1029 to make an appointment with a faculty member.

AAS – Interior Design
60 credit hours

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

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
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDS 1349</td>
<td>Fundamentals of Space Planning</td>
<td>Summer Semester</td>
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<tr>
<td>MATH 1324</td>
<td>Mathematics for Business and Social Sciences</td>
<td>Summer Semester</td>
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<td>(See Mathematics options)</td>
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<td>ENGL 1301</td>
<td>Composition I</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>GEN ED</td>
<td>Social/Behavioral Sciences course</td>
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**SECOND YEAR**

**First Semester**

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<tbody>
<tr>
<td>INDS 1352</td>
<td>History of Interiors II</td>
<td>First Semester</td>
<td></td>
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<tr>
<td>INDS 2313</td>
<td>Residential Design I</td>
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<tr>
<td>INDS 2315</td>
<td>Lighting for Interior Designers</td>
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<tr>
<td>GEN ED</td>
<td>Humanities/Fine Arts course</td>
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**Second Semester**

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<tbody>
<tr>
<td>INDS 1315</td>
<td>Materials, Methods and Estimating</td>
<td>Second Semester</td>
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<tr>
<td>INDS 1345</td>
<td>Commercial Design I</td>
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<tr>
<td>INDS 1373</td>
<td>Green Interiors</td>
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<tr>
<td>INDS 2374</td>
<td>Sustainable Living</td>
<td></td>
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<tr>
<td>INDS 2330</td>
<td>Interior Design Building Systems (Capstone)</td>
<td>Summer Semester</td>
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<td>(Capstone) 1</td>
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1. 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**

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<td>INDS 1371</td>
<td>Introduction to Green Design</td>
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**Second Semester**

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**Certificate Level 1 – Interior Design**

21 credit hours

**FIRST YEAR**

**First Semester**

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<tr>
<td>INDS 1301</td>
<td>Basic Elements of Design</td>
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<tr>
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<td>Color Theory and Application</td>
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<tr>
<td>INDS 1371</td>
<td>Introduction to Green Design</td>
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**Second Semester**

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<td>History of Interiors I 1</td>
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<tr>
<td>INDS 1372</td>
<td>Computer-Aided Drafting for Interior Designers (Capstone)</td>
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</tbody>
</table>

1. May substitute INDS 1352

**Certificate Level 2 – ASL Studies**

**Certificate Level 3 – ESC – Interpreting in Medical Settings**

(Note: Beginning January 2012, 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, interaction with ASL Lab assistants, group study, community events, 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 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**
- ENGL 1301 Composition I
- MATH 1314 College Algebra (See Mathematics Options)
- SGNL 1401 Beginning American Sign Language I *
- SLNG 1215 Visual/Gestural Communication (Fall Semester only)

**Second Semester**
- SGNL 1402 Beginning American Sign Language II *
- SLNG 1207 Intra-lingual Skills Development for Interpreters (Spring Semester only)
- SLNG 1347 Deaf Culture
- SPCH 1311 Introduction to Speech Communication (See Speech Options)

**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 (Fall Semester only)
- SLNG 2301 Interpreting I (Fall Semester only)
- GEN ED Social/Behavioral Sciences course

**Spring Semester**
- PHIL 2306 Introduction to Ethics 1
- SGNL 2186 Internship I – Sign Language Interpretation and Translation
- SGNL 2302 Interpreting II (Spring Semester only)
- SGNL 2303 Transliterating (Spring Semester only)
- SGNL 2311 Interpreting in Specialized Settings (Spring Semester only)

**Summer Semester**
- SLNG 1291 Special Topics in Sign Language Interpreter (Summer Semester only)
- SGNL 2331 Interpreting III (Summer Semester only)
- SGNL 2387 Internship II – Sign Language Interpretation and Translation (Capstone) (Summer Semester only)
+ 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, ENGL 2342, ENGL 2343, 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 (Fall Semester only)
SLNG 1347 Deaf Culture

Second Semester
SGNL 1402 American Sign Language: Beginning II +
SLNG 1207 Intra-lingual Skills Development for Interpreters (Spring Semester only)
SPCH 1311 Introduction to Speech Communication

Summer Semester
SGNL 2501 American Sign Language (ASL): Intermediate I
SLNG 1211 Fingerspelling and Numbers (Summer Semester only)
SLNG 1321 Introduction to the Interpreting Profession (Summer Semester only)

SECOND YEAR
Fall Semester
SGNL 2302 American Sign Language: Intermediate II +
SLNG 1350 Sign-to-Voice (Capstone) (Fall Semester only)

+ 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/business/

Program Options:
AAS – Marketing
Certificate Level 1 – Entrepreneurship
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 work in all types of work atmospheres, from retail or wholesale organizations to non-profits, governmental agencies and academic institutions.

Collin’s marketing program is designed to give you 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.

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.

Through a transfer agreement, students may earn their Associate of Applied Science (AAS) degree in Marketing from Collin and transfer to numerous universities in Texas where their Collin courses may be applied toward Bachelor of Applied Arts and Science (BAAS) and Bachelor of Applied Technology (BAT) degrees.
Students planning to transfer to a college or university should check with the Collin academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

**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  
  (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
- MRKG 2348: Marketing Research and Strategies  
  (See Speech options)
- MRKG 2381: Cooperative Education – Marketing /  
  Marketing Management, General (Capstone)  
  (See Speech options)
- SPCH 1321: Business and Professional Communication

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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)
Music, Commercial

Also see Associate of Arts – Music Field of Study, an academic transfer program.

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 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   Aural Skills I 1
SPCH 1321   Business and Professional Communication (See Speech Options)
ELECTIVE *
ELECTIVE *

SECOND YEAR
First Semester
ENGL 1301   Composition I
MUSB 2301   Music Marketing
MUSC 1331   MIDI I
MUSP 1113   Introductory Group Piano I 2
GEN ED     Mathematics/Natural Sciences Course
ELECTIVE *

Second Semester
MUSB 2350   Commercial Music Project (Capstone) 3
MUSC 1405   Live Sound I
MUSC 2351   Audio for Video
MUSI 1307   Music Literature 4
MUSP 1114   Introductory Group Piano II 5
GEN ED     Social/Behavioral Sciences 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.

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 or MUSP 1110 or MUSP-2235, departmental permission required

* 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
<table>
<thead>
<tr>
<th>Certificate Level 1 – Audio Engineering</th>
<th>Certificate Level 2 – Music Business</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Studio Track</strong></td>
<td>33 credit hours</td>
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<tr>
<td>31 credit hours</td>
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<td><strong>FIRST YEAR</strong></td>
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<tr>
<td><strong>Summer Semester</strong></td>
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<tr>
<td>MUSC 1327 Audio Engineering I ~</td>
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<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>MUSB 1305 Survey of the Music Business</td>
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<tr>
<td>MUSB 2301 Music Marketing</td>
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<td>MUSC 1405 Live Sound I</td>
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<tr>
<td>MUSC 2427 Audio Engineering II ~</td>
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<td><strong>Second Semester</strong></td>
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<tr>
<td>MUSC 1323 Audio Electronics</td>
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<tr>
<td>MUSC 1331 MIDI I</td>
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<tr>
<td>MUSC 2447 Audio Engineering III ~</td>
<td></td>
</tr>
<tr>
<td>MUSC 2448 Audio Engineering IV ~ (Capstone)</td>
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</tbody>
</table>

- *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.*

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<thead>
<tr>
<th>Certificate Level 1 – Audio Engineering</th>
<th>Certificate Level 2 – Music Business</th>
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<tbody>
<tr>
<td><strong>Live Sound Track</strong></td>
<td>33 credit hours</td>
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<td>31 credit hours</td>
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<tr>
<td><strong>Summer Semester</strong></td>
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<tr>
<td>MUSC 1327 Audio Engineering I ~</td>
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<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>MUSB 1305 Survey of the Music Business</td>
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<td>MUSB 1341 Concert Promotion and Venue</td>
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<td>Management</td>
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<td>MUSC 2427 Audio Engineering II ~</td>
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<td><strong>Second Semester</strong></td>
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<tr>
<td>MUSC 1323 Audio Electronics</td>
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<table>
<thead>
<tr>
<th>Nursing (RN)</th>
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<tbody>
<tr>
<td><strong>Department website:</strong></td>
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</tr>
<tr>
<td><a href="http://www.collin.edu/nursing">http://www.collin.edu/nursing</a></td>
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<tr>
<td><strong>Program Options:</strong></td>
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<tr>
<td>AAS – Nursing (RN)</td>
<td></td>
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<tr>
<td>Nursing (RN) Bridge for LVN / Paramedic / Medic</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Collin’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.</td>
<td></td>
</tr>
<tr>
<td>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</td>
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</tr>
</tbody>
</table>
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’s ADN program students are ready to make application 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, paramedics and medics, 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 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

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. 31st, March 31st or Aug. 31st 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**

<table>
<thead>
<tr>
<th>BIOL</th>
<th>2401</th>
<th>Anatomy and Physiology I 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>2402</td>
<td>Anatomy and Physiology II 1</td>
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<tr>
<td>BIOL</td>
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<td>Microbiology for Non-Science Majors</td>
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**FIRST YEAR**

**First Semester**

<table>
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<tr>
<th>PSYC</th>
<th>2301</th>
<th>General Psychology 1</th>
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<td>RNSG</td>
<td>1125</td>
<td>Professional Nursing Concepts I</td>
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<tr>
<td>RNSG</td>
<td>1128</td>
<td>Introduction to Health Care Concepts</td>
</tr>
<tr>
<td>RNSG</td>
<td>1161</td>
<td>Clinical I – Nursing – Registered Nurse Training</td>
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<td>RNSG</td>
<td>1216</td>
<td>Professional Nursing Competencies</td>
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<td>Health Care Concepts I</td>
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**Second Semester**

<table>
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<tr>
<th>PSYC</th>
<th>2314</th>
<th>Life-Span Growth and Development</th>
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<td>1126</td>
<td>Professional Nursing Concepts II</td>
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<tr>
<td>RNSG</td>
<td>1533</td>
<td>Health Care Concepts II</td>
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<tr>
<td>RNSG</td>
<td>2361</td>
<td>Clinical II – Nursing – Registered Nurse Training</td>
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</table>

**SECOND YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>ENGL</th>
<th>1301</th>
<th>Composition I</th>
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<tbody>
<tr>
<td>RNSG</td>
<td>1137</td>
<td>Professional Nursing Concepts III</td>
</tr>
<tr>
<td>RNSG</td>
<td>1538</td>
<td>Health Care Concepts III</td>
</tr>
<tr>
<td>RNSG</td>
<td>2362</td>
<td>Clinical III – Nursing – Registered Nurse Training</td>
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</table>

**Second Semester**

<table>
<thead>
<tr>
<th>RNSG</th>
<th>2138</th>
<th>Professional Nursing Concepts IV (Capstone)</th>
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</thead>
<tbody>
<tr>
<td>RNSG</td>
<td>2363</td>
<td>Clinical IV – Nursing – Registered Nurse Training</td>
</tr>
<tr>
<td>GEN ED</td>
<td></td>
<td>Humanities/Fine Arts course</td>
</tr>
</tbody>
</table>

1. No course substitutions

**Nursing (RN) Bridge for LVN / Paramedic / Medic**
60 credit hours

**PREREQUISITES**

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<tr>
<td>BIOL</td>
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<td>Microbiology for Non-Science Majors</td>
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</table>

**FIRST YEAR**

**Summer**

<table>
<thead>
<tr>
<th>RNSG</th>
<th>1118</th>
<th>Transition to Professional Nursing Competencies</th>
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<tbody>
<tr>
<td>RNSG</td>
<td>1128</td>
<td>Introduction to Health Care Concepts</td>
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<tr>
<td>RNSG</td>
<td>1163</td>
<td>Clinical – Nursing Transition from LVN/Paramedic</td>
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<tr>
<td>RNSG</td>
<td>1324</td>
<td>Concept-Based Transition to Professional Nursing Practice</td>
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**SECOND YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>ENGL</th>
<th>1301</th>
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<tr>
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**Second Semester**

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<td>RNSG</td>
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<td>Clinical IV – Nursing – Registered Nurse Training</td>
</tr>
</tbody>
</table>
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’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/legal assistants is projected to grow 15 percent from 2016 to 2026, 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, give legal advice or provide independent legal services. 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.

Students planning to transfer to a college or university should check with Collin 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

FIRST YEAR
First Semester
ENGL 1301  Composition I
LGLA 1303  Legal Research
LGLA 1307  Introduction to Law and the Legal Professions
MATH 1314  College Algebra

Second Semester
GOVT 2305  Federal Government (Federal constitution and topics)
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 Logic ³ (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) ¹
LAW ELECTIVE *
LAW ELECTIVE *

1. May substitute MATH 1316, MATH 1324, MATH 1332, MATH 1342, MATH 1350, MATH 1351, or MATH 1414
2. May substitute GOVT 2306; no other substitutions
3. Recommended for students planning to take the LSAT.
* Law Electives (6 credit hours): LGLA 1323, LGLA 1343, LGLA 1353, LGLA 1355, LGLA 1380, LGLA 2307, LGLA 2309, LGLA 2313, or LGLA 2323

Certificate Level 2 – Paralegal General
36 credit hours

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) ¹

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’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 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/ihce/) 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
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CHEF</td>
<td>1301 Basic Food Preparation</td>
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<tr>
<td>CHEF</td>
<td>1305 Sanitation and Safety 1, 2</td>
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<tr>
<td>ENGL</td>
<td>1301 Composition I</td>
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<tr>
<td>HAMG</td>
<td>1321 Introduction to Hospitality Industry</td>
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<tr>
<td>PSTR</td>
<td>1301 Fundamentals of Baking</td>
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Second Semester
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>IFWA</td>
<td>1310 Nutrition and Menu Planning</td>
</tr>
<tr>
<td>MATH</td>
<td>1332 Contemporary Mathematics (Quantitative Reasoning) (See Mathematics options)</td>
</tr>
<tr>
<td>PSTR</td>
<td>1305 Breads and Rolls</td>
</tr>
<tr>
<td>PSTR</td>
<td>1310 Pies, Tarts, Teacakes and Cookies</td>
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<tr>
<td>RSTO</td>
<td>1325 Purchasing for Hospitality Operations</td>
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Third Semester
<table>
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<th>Course</th>
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<tbody>
<tr>
<td>PSTR</td>
<td>1306 Cake Decorating I</td>
</tr>
<tr>
<td>GEN ED</td>
<td>Humanities/Fine Arts course</td>
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SECOND YEAR
First Semester
<table>
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<tr>
<td>HAMG</td>
<td>1324 Hospitality Human Resources Management</td>
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</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>PSTR</td>
<td>2301 Chocolates and Confections</td>
</tr>
<tr>
<td>PSTR</td>
<td>2307 Cake Decorating II</td>
</tr>
<tr>
<td>GEN ED</td>
<td>Social/Behavioral Sciences course</td>
</tr>
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SECOND YEAR
First Semester
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HAMG</td>
<td>1324 Hospitality Human Resources Management</td>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PSTR</td>
<td>2331 Advanced Pastry Shop (Capstone)</td>
</tr>
<tr>
<td>PSTR</td>
<td>2380 Cooperative Education – Baking and Pastry Arts/Baker/Pastry Chef</td>
</tr>
<tr>
<td>SPCH</td>
<td>1321 Business and Professional Communication (See Speech options)</td>
</tr>
</tbody>
</table>

ELECTIVE *
~ Taught in eight-week format
1 Certification in ServSafe
2 Certification in Food Protection Management

* Elective (3 credit hours): CHEF 2331, HAMG 1313 ~, HAMG 1340, HAMG 2301 ~, HAMG 2332 ~, HAMG 2337 ~, RSTO 2307 ~ or TRVM 2301

Certificate Level 1 – Pastry Arts
24 credit hours

FIRST YEAR
First Semester
<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CHEF</td>
<td>1301 Basic Food Preparation</td>
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<tr>
<td>CHEF</td>
<td>1305 Sanitation and Safety 1, 2</td>
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<tr>
<td>IFWA</td>
<td>1310 Nutrition and Menu Planning</td>
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<tr>
<td>PSTR</td>
<td>1301 Fundamentals of Baking</td>
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Second Semester
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<tr>
<td>PSTR</td>
<td>1305 Breads and Rolls</td>
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<tr>
<td>PSTR</td>
<td>1306 Cake Decorating I</td>
</tr>
<tr>
<td>PSTR</td>
<td>1310 Pies, Tarts, Teacakes and Cookies</td>
</tr>
<tr>
<td>PSTR</td>
<td>2301 Chocolates and Confections</td>
</tr>
</tbody>
</table>

Taught in eight-week format
1. Certification in ServSafe
2. Certification in Food Protection Management

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
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PSTR</td>
<td>1312 Laminated Dough, Pate a Choux and Donuts</td>
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<tr>
<td>PSTR</td>
<td>1340 Plated Desserts</td>
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Second Semester
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSTR</td>
<td>1342 Quantity Bakeshop Production (Capstone)</td>
</tr>
<tr>
<td>PSTR</td>
<td>1343 Bakery Operations and Management</td>
</tr>
</tbody>
</table>
Photography, Commercial

Associate of Arts – Photography for academic transfer coursework.

Department Website:
http://www.collin.edu/department/photography/

Program Options:
AAS – Commercial Photography
Certificate Level 1 – Studio Production
Certificate Level 2 – Commercial Photography Specialist

Commercial photography allows you to take a skill that you love and turn it into a career.

Learn techniques and technology from experienced photographers who know the industry and can guide your development as a commercial artist. Collin College’s Photography Department teaches historic and contemporary photographic practices and offers training for students to pursue a career in the industry.

Studies include a variety of commercial shooting styles, with emphasis in natural, studio and location lighting, management of a commercial studio, and the skills to assist professional photographers, art directors and stylists. The commercial photography program will prepare you to freelance and/or start an independent photography practice.

The department’s state-of-the-art photography facility is one of the best in the state and includes a fully-equipped 20 work station MAC lab, a digital media room with Nikon / Imacon / Epson scanners and 20 Epson printers from 13 to 44 inches, a double studio with Profoto strobe set-ups and a continuous artificial lighting set-up for digital video, a 20 enlarger archival black and white dark room and film processing room; an alternative processing room and black arts facilities with a Davey board cutter; and equipment check out with digital, 35mm, medium and large format film cameras, and portable strobe lighting equipment available.

Students planning to transfer to a college or university should check with the Collin academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

AAS – Commercial Photography
60 credit hours

FIRST YEAR
First Semester
ARTS 1313 Foundations of Art (See Humanities/Fine Arts options)
ARTS 2348 Digital Photography I

Second Semester
GEN ED Mathematics/Natural Sciences course
PHTC 1300 Digital Photography II
PHTC 1353 Portraiture I
PHTC 2331 Architectural Photography
CREATIVE COURSE 1

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 2

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 Photography I

Second Semester
PHTC 1353 Portraiture I
PHTC 2371 Video for Photographers (Capstone)
CREATIVE COURSE 1

1. Select one Creative course (3 hours): ARTS 2356 or PHTC 1300

Certificate Level 2 – Commercial Photography Specialist
15 credit hours

SECOND YEAR
First Semester
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 1

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 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  Photo Digital Imaging I
PHTC 1371  Book, Design and Presentation
PHTC 2340  Photographic Studio Management
CREATIVE COURSE 1

Second Semester
PHTC 1341  Color Photography I (Theory and Management)
PHTC 2331  Architectural Photography
PHTC 2349  Digital Photography II
TECHNICAL COURSE 2

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)

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. Be part of the team that diagnoses and helps treat those disorders with a certificate or Associate of Applied Science degree from Collin College.

Polysomnographic technologists conduct the sleep studies that allow physicians to diagnose and treat patients suffering from sleep disorders. Through this program, Collin College students are prepared to enter the growing and challenging field of sleep medicine by equipping them with the skills and fundamental knowledge to effectively monitor, manage and treat sleep disorders under medical supervision.

The Polysomnographic Technology program offers two degree options. The 22-month AAS degree track is for students who do not have a background in health care. The 12-month certificate is for individuals who are board registered in any health care 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.

Polysomnographic Technology
Department Website:
www.collin.edu/sleep

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 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 Psychological Services Bureau (PSB) Health Occupations Aptitude Exam
- 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
BIOL 2404 Human Anatomy and Physiology Basic
HPRS 1204 Basic Health Profession Skills

FIRST YEAR
First Semester
ENGL 1301 Composition I
PSGT 1215 Introduction to Polysomnography
PSGT 1310 Neuroanatomy and Physiology
RSPT 1207 Cardiopulmonary Anatomy and Physiology
SPCH 1311 Introduction to Speech Communication

Second Semester
PSGT 1205 Neurophysiology of Sleep
PSGT 1340 Sleep Disorders
PSGT 1400 Polysomnography I
RSPT 1237 Basic Dysrhythmia Interpretation
GEN ED Social/Behavioral Sciences course

Third Semester (Summer)
PSGT 1360 AAS Clinical I – Polysomnography

SECOND YEAR
First Semester
PSGT 2205 Sleep Scoring and Staging
PSGT 2360 AAS Clinical II – Polysomnography
PSGT 2411 Polysomnography II
GEN ED Humanities/Fine Arts course

Second Semester
PSGT 2250 Infant and Pediatric Polysomnography
PSGT 2271 Pharmacology for Polysomnography
PSGT 2272 Polysomnography Exam Preparation (Capstone)
PSGT 2361 AAS Clinical III – Polysomnography
PSGT 2374 Clinical Sleep Education

Certificate Level 1 – Polysomnographic Technology
28 credit hours

PRE-ENRANCE 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)

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 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 planning to transfer to a college or university should check with Collin 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 YEAR
First Semester
RELE 1321  Real Estate Marketing
ECON 1301  Introduction to Economics
RELE 1325  Real Estate Mathematics
ENGL 1302  Composition II
HIST 1301  United States History I

Second Semester
MRKG 1301  Customer Relationship Management
MRKG 2349  Advertising and Sales Promotion (Capstone)
SPCH 1321  Business and Professional Communication (See Speech options)
GEN ED  Humanities/Fine Arts 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

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 in Respiratory Care from Collin College.

As a respiratory therapist, you will work with patients of all ages, providing treatment, monitoring responses to therapies, evaluating patients and helping them manage their breathing or cardiovascular conditions.

Collin'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 you to apply for the Therapist Multiple Choice and Clinical Simulation 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.

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 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 Psychological Services Bureau (PSB), Health Occupations Aptitude Exam 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.
   . 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
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<tr>
<td>BIOL</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
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<tr>
<td>BIOL</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>HPRS</td>
<td>Basic Health Professions Skills</td>
<td>3</td>
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<tr>
<td>HPRS</td>
<td>Microbiology for Health Professions</td>
<td>3</td>
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FIRST YEAR
First Semester
<table>
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<th>Title</th>
<th>Credits</th>
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<tr>
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<td>3</td>
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<tr>
<td>RSPT</td>
<td>Introduction to Respiratory Care</td>
<td>3</td>
</tr>
<tr>
<td>RSPT</td>
<td>Cardiopulmonary Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>RSPT</td>
<td>Respiratory Care Procedures I</td>
<td>3</td>
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Second Semester
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<tr>
<td>RSPT</td>
<td>Clinical II – Respiratory Care Therapist</td>
<td>3</td>
</tr>
<tr>
<td>RSPT</td>
<td>Respiratory Care Procedures II</td>
<td>3</td>
</tr>
<tr>
<td>RSPT</td>
<td>Respiratory Care Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>RSPT</td>
<td>Cardiopulmonary Disease</td>
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<tr>
<td>GEN ED</td>
<td>Humanities/Fine Arts course</td>
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Summer
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<tbody>
<tr>
<td>RSPT</td>
<td>Clinical III – Respiratory Care Therapist</td>
<td>3</td>
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<tr>
<td>RSPT</td>
<td>Respiratory Care Procedures III</td>
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SECOND YEAR
First Semester
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC</td>
<td>General Psychology</td>
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<tr>
<td>RSPT</td>
<td>Critical Care Monitoring</td>
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<tr>
<td>RSPT</td>
<td>Neonatal/Pediatric Cardiopulmonary Care</td>
<td>3</td>
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<tr>
<td>RSPT</td>
<td>Clinical IV – Respiratory Care Therapist</td>
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Second Semester
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>RSPT</td>
<td>Respiratory Care Examination Preparation</td>
<td>3</td>
</tr>
<tr>
<td>RSPT</td>
<td>Advanced Cardiac Life Support</td>
<td>3</td>
</tr>
<tr>
<td>RSPT</td>
<td>Specialties in Respiratory Care</td>
<td>3</td>
</tr>
<tr>
<td>RSPT</td>
<td>Simulations in Respiratory Care</td>
<td>3</td>
</tr>
<tr>
<td>RSPT</td>
<td>Clinical V – Respiratory Care Therapist (Capstone)</td>
<td>3</td>
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</tbody>
</table>

1 No course substitutions
2 May substitute SOCI 1301
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'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.

Students planning to transfer to a college or university should check with the Collin academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

### AAS – Supply Chain Management

60 credit hours

#### FIRST YEAR

**First Semester**
- BMGT 1313 Principles of Purchasing
- BMGT 1344 Negotiations and Conflict Management
- ENGL 1301 Composition I
- ITSC 1309 Integrated Software Applications I – MS Office
- SPCH 1321 Business and Professional Communication (See Speech options)

**Second Semester**
- ACNT 1303 Introduction to Accounting I
- BMGT 1307 Team Building
- ECON 1301 Introduction to Economics
- GEN ED Humanities/Fine Arts 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
- MATH 1324 Mathematics for Business or Social Sciences

**Second Semester**
- BMGT 1341 Business Ethics

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>BMGT 2303</td>
<td>Problem Solving and Decision Making</td>
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<tr>
<td>IBUS 2332</td>
<td>Global Business Simulation (Capstone)</td>
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<tr>
<td>LMGT 1325</td>
<td>Warehouse and Distribution Center Management</td>
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</tr>
<tr>
<td>LMGT 2330</td>
<td>International Logistics Management</td>
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</tbody>
</table>

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
- 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**
- BMGT 2303 Information and Project Management
- BMGT 2309 Leadership
- IBUS 1341 Global Supply Chain Management (Capstone)

Surgical Technology

Department Website:
https://www.collin.edu/surgtech

Program Options:

AAS – Surgical Technology
Certificate Level 1 – Central Sterile Processing
Advanced Technical Certificate 1 – 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)**
Collin College offers an Associate of Applied Science (AAS) degree in Surgical Technology. The first year of the curriculum consists of prerequisites and general education courses. Once you have completed the first year, you may apply for admission. Upon completion of the program, students will be eligible to sit for the National Board of Surgical Technology exam.

**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 First Assistant (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.

**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 academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

**SPECIAL ADMISSION REQUIREMENTS FOR ALL PROGRAMS**
Admission to the programs is selective and competitive. Please see each program’s specific qualifications on the department website [http://www.collin.edu/surgtech](http://www.collin.edu/surgtech).

- 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 Psychological Services Bureau (PSB) Health Occupations Aptitude 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 STEERLE 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 0310 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
ADDITIONAL REQUIREMENTS FOR SURGICAL FIRST ASSISTANT PROGRAM

- Current Certified Surgical Technology Certified
- Associate of Applied Science (AAS) Degree in Healthcare
- Two years recent experience as a clinical Surgical Technologist
- Submit official copies of all college transcripts denoting AAS to both Collin College and to the Surgical Technology Department
- Overall GPA of 2.5 or higher from all college courses completed and applicable to the surgical technology degree plan
- 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
- 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: Coordinator of Surgical First Assist Program, 2200 West University Drive, McKinney, Texas 75071

Health Insurance – All Central Sterile, Surgical Technology, and Surgical First Assist 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 (IAHCSMM). 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

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>BIOL 2401</td>
<td>4</td>
<td>Anatomy and Physiology I</td>
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<td>ENGL 1301</td>
<td>3</td>
<td>Composition I</td>
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<tr>
<td>HPRS 1204</td>
<td>3</td>
<td>Basic Health Profession Skills</td>
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<tr>
<td>SPCH 1311</td>
<td>3</td>
<td>Introduction to Speech Communication (See Speech Options)</td>
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Second Prerequisite Semester

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<tr>
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<td>Anatomy and Physiology II</td>
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<td>HITT 1305</td>
<td>3</td>
<td>Medical Terminology I</td>
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<td>PSYC 2301</td>
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<td>General Psychology</td>
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<td>GEN ED Humanities/Fine Arts</td>
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SECOND YEAR
First (Summer) Semester

<table>
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<th>Course</th>
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<tr>
<td>SRGT 1271</td>
<td>3</td>
<td>Basic Skills of Surgical Technology</td>
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<tr>
<td>SRGT 1409</td>
<td>3</td>
<td>Fundamentals of Peri-operative Concepts and Techniques</td>
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Second Semester

<table>
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<tr>
<td>HITT 1303</td>
<td>3</td>
<td>Medical Terminology II</td>
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<td>HPRS 2300</td>
<td>3</td>
<td>Pharmacology for Health Professions</td>
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<td>SRGT 1441</td>
<td>3</td>
<td>Surgical Procedures I</td>
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<tr>
<td>SRGT 1461</td>
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Third Semester

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<td>BIOL 2420</td>
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<td>Microbiology for Non-Science Majors</td>
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<tr>
<td>SRGT 1171</td>
<td>3</td>
<td>Transition to Practice for the Surgical Technologist</td>
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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 I – 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)

Advanced Technical Certificate – Surgical Assisting
38 credit hours

This certificate is designed for Surgical Technicians that already have a degree in Surgical Technology plus 2 years experience as a Certified Surgical technician.

First Semester
BUSI 1301 Business Principles
COSC 1301 Introducting to Computing
CSFA 1371 Fundamentals and Surgical Safety
CSFA 2371 Surgical Procedures
CSFA 2472 Suturing, Knot Tying, Hemostasis And Wound Healing

Second Semester
CSFA 1172 Pharmacology and Anesthesia
CSFA 1173 Principles of Surgical Assisting Lab I
CSFA 1175 Peroperative Microbiology and Bioscience
CSFA 2372 Operative Anatomy and Pathophysiology I
CSFA 2473 Surgical Assisting Clinical I
HPRS 2232 Health Care Communications

Third Semester
CSFA 1176 Complications in Surgery
CSFA 2171 Role Definition, Ethical, Legal and Moral Responsibilities
CSFA 2173 Principles of Surgical Assisting Lab II
CSFA 2373 Operative Anatomy and Pathophysiology II
CSFA 2474 Surgical Assisting Clinical II (Capstone)

Video Production

Also see Animation

Program Options:
AAS – Video Production
Certificate Level I – Video Production

Learn how to make your cinematic vision a reality with a certificate or degree in video production from Collin College.

Video Production focuses on developing the concept, design and production 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.

For more than 20 years, the Communication Design department (formerly Applied Graphic Design Technology) at Collin has offered industry-standard education in the creative service fields of animation, digital video, graphic design, web and interactive design. All full-time faculty have industry experience and all associate faculty are practicing professionals. Guest speakers from industry are featured on an ongoing basis. Current industry practices and standards are a central component of classroom instruction and there is an elective option for the most diligent students to earn credit through local industry internships.

Students planning to transfer to a college or university should check with Collin academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability.

AAS – Video Production

60 credit hours

FIRST YEAR
First Semester
ARTC 1325 Introduction to Computer Graphics
ARTS 2348 Digital Photography I 1
ARTV 1371 Storyboard and Concept Development
DRAM 2366 Introduction to Cinema
ENGL 1301 Composition I

Second Semester
ARTC 1302 Digital Imaging I
ARTC 1305 Basic Graphic Design
ARTV 1303 Basic Animation
ARTV 1351 Digital Video
MUSC 1327 Audio Engineering I
RTVB 1329 Scriptwriting
SECOND YEAR
First Semester
ARTV 2320  Team Program Production I
FLMC 1331  Video Graphics and Visual Effects I
RTVB 2330  Film and Video Editing
GEN ED  Mathematics/Natural Sciences course

Second Semester
FLMC 2331  Video Graphics and Visual Effects II
RTVB 2340  Portfolio Development (Capstone)
GEN ED  Humanities/Fine Arts course
GEN ED  Social/Behavioral Sciences course
SPCH 1311  Introduction to Speech Communication
(See Speech Options)

1. May substitute ARTS 2356 or PHTC 1311

Certificate Level 1 – Video Production
42 credit hours

FIRST YEAR
First Semester
ARTC 1325  Introduction to Computer Graphics
ARTS 2348  Digital Photography I
ARTV 1371  Storyboard and Concept Development
DRAM 2366  Introduction to Cinema
MUSC 1327  Audio Engineering I

Second Semester
ARTC 1302  Digital Imaging I
ARTV 1351  Digital Video
FLMC 1331  Video Graphics and Visual Effects I
RTVB 1329  Scriptwriting

SECOND YEAR
First Semester
ARTV 1303  Basic Animation
ARTV 2320  Team Program Production I
FLMC 2331  Video Graphics and Visual Effects II
RTVB 2330  Film and Video Editing

Second Semester
RTVB 2340  Portfolio Development (Capstone)

1. May substitute ARTS 2356 or PHTC 1311

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 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
ENGL 1301  Composition I
ITSE 1301  Web Design Tools-Graphics
ITSW 1311  Beginning Web Programming
GEN ED  Mathematics course

Second Semester
IMED 1341  Interface Design
ITNW 1358  Network+
ITSE 1330  Introduction to C# Programming
ITSE 1359  Introduction to Scripting Languages – Python
ITSE 2302  Intermediate Web Programming
ITSW 2309  Database Programming – SQL
Summer Semester
GEN ED See Social/Behavioral Sciences course
GEN ED Humanities/Fine Arts course

SECOND YEAR
First Semester
ITSE 1306 PHP Programming
ITSE 1333 Mobile Applications Development
ITSE 2353 Advanced C# Programming
GEN ED Speech course

Second Semester
INEW 2334 Advanced Web Programming
ITSE 2374 Web and Mobile Application Development (Capstone) 4
Elective*
1. May substitute COSC 1336
2. May substitute Math 1314 or Math 1324 or Math 1332
3. May substitute ITSC 2380

* 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

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

Second Summer Semester
ITSE 2374 Web and Mobile Application Development (Capstone) 1

1. May substitute ITSC 2380
Elective* (3 credit hours) : ITSC 1316, ITSE 2313, ITSE 1333

Certificate Level 1 – Front-end Web Developer
18 credit hours
Summer Semester
ITSE 1311 Beginning Web Programming

First Semester
IMED 1341 Interface Design
ITSE 1301 Web Design Tools – Graphics
ITSE 2302 Intermediate Web Programming

Second Semester
ITSE 2313 Web Authoring 1
ITSE 2374 Web and Mobile Application Development (Capstone) 2

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 1
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 2
ITSE 1333 Mobile Applications Development
ELECTIVE*
Second Summer Semester
ITSE 2343 Advanced Mobile programing (Capstone) 3

1. May substitute COSC 1336
2. May substitute COSC 1337
3. May substitute ITSC 2380 or ITSE 2374

*Elective (3 credit hours): ITSE 1373, ITSE 2309, ITSE 2310

Welding
Program Options:
AAS – Welding
• Foundry / Metalsmithing Track
• Welding Technology Track
Certificate Level 1 – Foundry / Metalsmithing
Certificate Level 1 – Welding Technology

Welding is a craft that is highly valued in both the industrial and the 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 with two tracks and two level 1 certificates, Foundry/Metalsmithing and Welding Technology. The AAS will allow you to earn a degree in Welding or Foundry/Metalsmithing or a combination, while the certificates are designed to qualify you in specific processes such as welding, metal sculpting and foundry/metal smithing.

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 academic advisors. Also check the degree requirement of the intended transfer college prior to beginning this program to verify course degree applicability

AAS – Welding – Foundry / Metalsmithing Track
60 credit hours

FIRST YEAR
First Semester
MATH 1332 Contemporary Mathematics
(Quantitative Reasoning)
(See Mathematics options)
WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW)
WLDG 1434 Introduction to Gas Tungsten Arc Welding (GTAW)
WLDG 1530 Introduction to Gas Metal Arc Welding (GMAW)

Second Semester
ENGL 1301 Composition I
SPCH 1321 Business and Professional Communication
(See Speech options)
WLDG 1401 Metalsmithing
WLDG 1405 Art Metals

SECOND YEAR
First Semester
GEN ED Humanities/Fine Arts course
TECHNICAL COURSE 1 *
TECHNICAL COURSE 2 *
WLDG 1408 Metal Sculpture

Second Semester
GEN ED Social/Behavioral Sciences course
TECHNICAL COURSE 3 *
WLDG 1425 Introduction to Oxy-Fuel Welding and Cutting
WLDG 2451 Advanced Gas Tungsten Arc Welding (GTAW)

Technical Course Options
* The options are a three-course sequence focusing on Metal Sculpting or Metalsmithing. You must take all 3 course options from a single focus.

Metal Sculpting Focus (12 credit hours)
Technical Course 1: WLDG 2441 Power Hammer
Technical Course 2: WLDG 2447 Advanced Gas Metal Arc Welding (GMAW)
Technical Course 3: WLDG 2440 Advanced Metal Sculpture (Capstone) 5

Foundry Metalsmithing Focus (12 credit hours)
Technical Course 1: WLDG 1471 Introduction To Foundry Practices
Technical Course 2: WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW)
Technical Course 3: WLDG 2471 Advanced Foundry Practices (Capstone) 1

1. May substitute WLDG 2480, with consent of Associate Dean
AAS – Welding – Welding Technology Track
60 credit hours

**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (See Mathematics options)</td>
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<tr>
<td>WLDG 1428</td>
<td>Introduction to Shielded Metal Arc Welding (SMAW)</td>
</tr>
<tr>
<td>WLDG 1434</td>
<td>Introduction to Gas Tungsten Arc Welding (GTAW)</td>
</tr>
<tr>
<td>WLDG 1530</td>
<td>Introduction to Gas Metal Arc Welding (GMAW)</td>
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**Second Semester**

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<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>SPCH 1321</td>
<td>Business and Professional Communication (See Speech options)</td>
</tr>
<tr>
<td>WLDG 1413</td>
<td>Introduction to Blueprint Reading for Welders</td>
</tr>
<tr>
<td>WLDG 1435</td>
<td>Introduction to Pipe Welding</td>
</tr>
</tbody>
</table>

**SECOND YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLDG 2451</td>
<td>Advanced Gas Tungsten Arc Welding (GTAW)</td>
</tr>
<tr>
<td>WLDG 2443</td>
<td>Advanced Shielded Metal Arc Welding (SMAW)</td>
</tr>
<tr>
<td>WLDG 2453</td>
<td>Advanced Pipe Welding ¹</td>
</tr>
<tr>
<td>GEN ED</td>
<td>Humanities/Fine Arts course</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLDG 1425</td>
<td>Introduction to Oxy-Fuel Welding and Cutting</td>
</tr>
<tr>
<td>WLDG 2413</td>
<td>Intermediate Welding Using Multiple Processes (Capstone) ²</td>
</tr>
<tr>
<td>WLDG 2431</td>
<td>Advanced Blueprint Interpretation and Cost Analysis</td>
</tr>
<tr>
<td>GEN ED</td>
<td>Social/Behavioral Sciences course</td>
</tr>
</tbody>
</table>

1. May substitute WLDG 2450
2. May substitute WLDG 2480, with consent Discipline Lead

**Certificate Level 1 – Foundry / Metalsmithing**
41 credit hours

*The options are a three-course sequence focusing on Metal Sculpting or Metalsmithing. You must take all 3 course options from a single focus.*

**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLDG 1401</td>
<td>Metalsmithing</td>
</tr>
<tr>
<td>WLDG 1405</td>
<td>Art Metals</td>
</tr>
</tbody>
</table>

WLDG 1434 | Introduction to Gas Tungsten Arc Welding (GTAW) |
WLDG 1530 | Introduction to Gas Metal Arc Welding (GMAW) |

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLDG 1408</td>
<td>Metal Sculpture</td>
</tr>
<tr>
<td>WLDG 1428</td>
<td>Introduction to Shielded Metal Arc Welding (SMAW)</td>
</tr>
</tbody>
</table>

TECHNICAL COURSE 1 *

**SECOND YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>WLDG 2451</td>
<td>Advanced Gas Tungsten Arc Welding (GTAW)</td>
</tr>
</tbody>
</table>

TECHNICAL COURSE 2 *

TECHNICAL COURSE 3 *

**Metal Sculpting Focus (12 credit hours)**

Technical Course 1: WLDG 2441 Power Hammer
Technical Course 2: WLDG 2447 Advanced Gas Metal Arc Welding (GMAW)
Technical Course 3: WLDG 2440 Advanced Metal Sculpture (Capstone) ¹

**Foundry Metalsmithing Focus (12 credit hours)**

Technical Course 1: WLDG 1471 Introduction to Foundry Practices
Technical Course 2: WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW)
Technical Course 3: WLDG 2471 Advanced Foundry Practices (Capstone) ¹

1. May substitute WLDG 2480, with consent of Associate Dean

**Certificate Level 1 – Welding Technology**
36 credit hours

**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLDG 1428</td>
<td>Introduction to Shielded Metal Arc Welding (SMAW)</td>
</tr>
<tr>
<td>WLDG 1434</td>
<td>Introduction to Gas Tungsten Arc Welding (GTAW)</td>
</tr>
<tr>
<td>WLDG 1435</td>
<td>Introduction to Pipe Welding</td>
</tr>
</tbody>
</table>

WLDG 2443 | Advanced Shielded Metal Arc Welding (SMAW) |
WLDG 2451 | Advanced Gas Tungsten Arc Welding (GTAW) |
SECOND YEAR
First Semester
WLDG 2431 Advanced Blueprint Interpretation and Cost Analysis
WLDG 2413 Intermediate Welding Using Multiple Processes (Capstone) ¹
WLDG 2453 Advanced Pipe Welding ²

1. May substitute WLDG 2480, with consent of Associate Dean
2. May substitute WLDG 2450, with consent of Associate Dean
BACCALAUREATE EDUCATION PROGRAMS

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 at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404.679.4500 for questions about the accreditation of Collin County Community College District. Note: The Commission is to be contacted only if there is evidence that appears to support the institution's significant non-compliance with a requirement or standard.

BACCALAUREATE DEGREE PLANS BY PROGRAM

Cybersecurity

Program Options:
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

Students who have already earned a two-year degree in an Information Security field are eligible to enroll in the Bachelor of Applied Technology (BAT) in Cybersecurity. Eligible students are required to attend a mandatory orientation session. For dates and times of orientation sessions, please go to http://www.collin.edu/department/cybersecurity/index.html.

BAT – Cybersecurity
120 credit hours

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

FIRST YEAR

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td>CPMT 1305</td>
<td>IT Essentials I: PC Hardware and Software</td>
</tr>
<tr>
<td></td>
<td>ITNW 1358</td>
<td>Network +</td>
</tr>
<tr>
<td></td>
<td>ITMT 1371</td>
<td>Configuring and Supporting Microsoft Windows 10</td>
</tr>
<tr>
<td></td>
<td>ITMT 1372</td>
<td>Installation, Storage and Computing With Windows</td>
</tr>
<tr>
<td></td>
<td>MATH 1342</td>
<td>Elementary Statistical Methods</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>ITCC 1314</td>
<td>CCNA 1: Cisco – Introduction to Networks</td>
</tr>
<tr>
<td>ITMT 1373</td>
<td>Networking with Windows Server 2016</td>
</tr>
<tr>
<td>ITSC 1316</td>
<td>Linux Installation and Configuration</td>
</tr>
<tr>
<td>ITCY 1300</td>
<td>Fundamentals of Information Security (Security +)</td>
</tr>
<tr>
<td>ITSC 2300</td>
<td>Operating System Security</td>
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SECOND YEAR

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td></td>
<td>ITCC 1340</td>
<td>CCNA 2: Routing and Switching Essentials</td>
</tr>
<tr>
<td></td>
<td>ITCY 2301</td>
<td>Firewalls and Network Security</td>
</tr>
<tr>
<td></td>
<td>ITCY 2342</td>
<td>Incident Response and Handling</td>
</tr>
<tr>
<td></td>
<td>SPCH 1321</td>
<td>Business and Professional Communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td>ITSC 1342</td>
<td>Shell Programming - Scripting</td>
</tr>
<tr>
<td></td>
<td>ITCY 2341</td>
<td>Security Management Practices</td>
</tr>
<tr>
<td></td>
<td>ITCY 2343</td>
<td>Computer System Forensics</td>
</tr>
<tr>
<td></td>
<td>ECON 2302</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td></td>
<td>PHIL 2303</td>
<td>Introduction to Formal Logic</td>
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</table>

THIRD YEAR

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>First Semester</td>
<td>CYBR 3310</td>
<td>Introduction to Cryptography</td>
</tr>
<tr>
<td></td>
<td>CYBR 3320</td>
<td>Digital and Device Forensics</td>
</tr>
<tr>
<td></td>
<td>CYBR 3330</td>
<td>Advanced Network Topologies and Protocols</td>
</tr>
<tr>
<td></td>
<td>PHYS 1415</td>
<td>Physical Science I</td>
</tr>
<tr>
<td></td>
<td>PSYC 1100</td>
<td>Learning Framework</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td>CYBR 3340</td>
<td>Cyber Crime</td>
</tr>
<tr>
<td></td>
<td>CYBR 3350</td>
<td>Cyber Privacy</td>
</tr>
<tr>
<td></td>
<td>CYBR 3360</td>
<td>Mobile Technologies</td>
</tr>
<tr>
<td></td>
<td>CYBR 4310</td>
<td>Penetration Testing</td>
</tr>
<tr>
<td></td>
<td>PHYS 1405</td>
<td>Conceptual Physics</td>
</tr>
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</table>

FOURTH YEAR

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td>CYBR 4320</td>
<td>Cyber Defense Operations</td>
</tr>
<tr>
<td></td>
<td>CYBR 4330</td>
<td>Virtualization and Cloud Security</td>
</tr>
<tr>
<td></td>
<td>ENGL 2311</td>
<td>Technical and Business Writing</td>
</tr>
<tr>
<td></td>
<td>HIST 1301</td>
<td>United States History I</td>
</tr>
<tr>
<td></td>
<td>GOVT 2305</td>
<td>Federal Government (Federal constitution and topics)</td>
</tr>
</tbody>
</table>
Second Semester
CYBR 4340 Information Assurance
CYBR 4350 Senior Project
HIST 1302 United States History II
GEN ED  course
    Humanities/Fine Arts
GOVT 2306 Texas Government
    (Texas constitution and topics)

RN-to-BSN Program

Department website:  
http://www.collin.edu/nursing

Program Option:  
Bachelor of Science in Nursing (BSN)

RN-to-BSN
The RN-to-BSN program prepares the student with an understanding of: nursing, health and healing, the environment, and persons as diverse individuals, families, populations, and communities. The nursing curriculum is designed to respond to the rapidly changing health care system, as well as to the needs of working nurses.

Accepted students have the opportunity to complete a Bachelor of Science in Nursing (BSN) degree within state-of-the-art facilities under the guidance of educators who have years of practical experience working in health care industry.

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 and completion of criterion reference test at the completion of the program.

FUNCTIONAL ABILITIES/CORE PERFORMANCE STANDARDS STATEMENT
After initial acceptance to this program, all students are required to meet specific functional abilities - with or without accommodations - for successful completion of the program and to function safely and effectively in the variety of the profession’s settings. The specific functional requirements are found in 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, and dental exam
- 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

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>When Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine Measles, Mumps &amp; Rubella (MMR)</td>
<td>Blood titer ONLY (you must provide actual lab that illustrates positive immunity)</td>
</tr>
<tr>
<td>Biology Tetanus- Diphtheria (Tdap)</td>
<td>Tetanus-Diphtheria-Pertussis (within last ten years); NOTE This is not Td or DTap</td>
</tr>
<tr>
<td>Hepatitis B series</td>
<td>Blood titer ONLY (you must provide actual lab that illustrates positive immunity)</td>
</tr>
<tr>
<td>Varicella</td>
<td>Blood titer ONLY (Serologic confirmation of immunity is accepted)</td>
</tr>
<tr>
<td>Tuberculosis Screening</td>
<td>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</td>
</tr>
<tr>
<td>Flu vaccination</td>
<td>Required during flu season – Usually September to April</td>
</tr>
</tbody>
</table>

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*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2401</td>
<td>Anatomy &amp; Physiology I w/lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2402</td>
<td>Anatomy &amp; Physiology II w/lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2420</td>
<td>Microbiology for Non-Science Majors w/lab</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1301</td>
<td>Art Appreciation (or other Creative Arts core)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2314</td>
<td>Life-Span Growth and Development</td>
<td>3</td>
</tr>
</tbody>
</table>

**Additional Program Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1302</td>
<td>Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>United History I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1302</td>
<td>United History II</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 2305</td>
<td>Federal Government</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 2306</td>
<td>Texas Government</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2306</td>
<td>Intro to Ethics (or other Language/Philosophy/Culture core)</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1321</td>
<td>Business and Professional Speaking (or SPCH 1311 or 1315)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1342</td>
<td>Elementary Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1322</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1405</td>
<td>Introduction to Chemistry w/lab or CHEM 1411 w/lab</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total 55**

**Lower Division Transfer Nursing Coursework**

*Will accept up to 36 credit hours from a diploma or Associate Degree in Nursing*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3220</td>
<td>Health Promotion Across Lifespan</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3330</td>
<td>Ethics in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3340</td>
<td>Population-focused Community Health I/Clinical</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3210</td>
<td>Transitions to the BSN Role</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3450</td>
<td>Advanced Health Assessment/Clinical</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total 14**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 4115</td>
<td>Health Organization</td>
<td>1</td>
</tr>
<tr>
<td>NURS 4235</td>
<td>Health Care Quality</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4345</td>
<td>Population-Focused Community Health II/Clinical</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4355</td>
<td>Research and Evidence-Based Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4465</td>
<td>Leadership and Management/Clinical</td>
<td>4</td>
</tr>
<tr>
<td>NURS 4225</td>
<td>Nursing Informatics</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total 15**

**Total Degree Credit Hours 120**

1. Course must be completed with a grade of C or above prior to enrolling in the nursing program.
2. Options include: ARTS 1301, 1303, 1304, 1313; DANC 2303; DRAM 1310, 2361, 2362, 2366; MUSI 1306, 1307 or 1310
3. No course substitutions or CLEP credit
4. No course substitutions
5. Must complete six (6) hours from the following options: HIST 1301, 1302, 2301
6. 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

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: PSYC 1100, 1300; KINE 1164, 1304, 1338; or EDUC 1300 (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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2401</td>
<td>Anatomy &amp; Physiology I w/lab 1, 3</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2402</td>
<td>Anatomy &amp; Physiology II w/lab 1, 3</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2420</td>
<td>Microbiology for Non-Science Majors w/lab 1, 3</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I 1</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1301</td>
<td>Art Appreciation (or other Creative Arts core) 2</td>
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<tr>
<td>PSYC 2301</td>
<td>General Psychology 1</td>
<td>3</td>
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<tr>
<td>PSYC 2314</td>
<td>Life-Span Growth and Development 1</td>
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Additional Program Requirements:

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<tr>
<td>ENGL 1302</td>
<td>Composition II 1</td>
<td>3</td>
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<tr>
<td>HIST 1301</td>
<td>United History I 5</td>
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<tr>
<td>HIST 1302</td>
<td>United History II 5</td>
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<td>GOVT 2305</td>
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<td>GOVT 2306</td>
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<td>PHIL 2306</td>
<td>Intro to Ethics (or other Language/Philosophy/Culture core) 6</td>
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<td>SPCH 1321</td>
<td>Business and Professional Speaking (or SPCH 1311 or 1315)</td>
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<td>Elementary Statistical Methods 1, 4</td>
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<tr>
<td>CHEM 1405</td>
<td>Introduction to Chemistry w/lab or CHEM 1411 w/lab 1</td>
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Total 55

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

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>NURS 3210</td>
<td>Transitions to the BSN Role</td>
<td>2</td>
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<tr>
<td>NURS 3220</td>
<td>Health Promotion Across Lifespan</td>
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<tr>
<td>NURS 3450</td>
<td>Advanced Health Assessment/Clinical</td>
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Second Semester

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<td>NURS 4115</td>
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<td>NURS 4235</td>
<td>Health Care Quality</td>
<td>2</td>
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<tr>
<td>NURS 3340</td>
<td>Population-focused Community Health I/Clinical</td>
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Third Semester

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<td>Ethics in Health Care</td>
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<td>NURS 4345</td>
<td>Population-focused Community Health II/Clinical</td>
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Fourth Semester

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<td>NURS 4225</td>
<td>Nursing Informatics</td>
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<tr>
<td>NURS 4355</td>
<td>Research and Evidence-based Practice</td>
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<td>NURS 4465</td>
<td>Leadership and Management/Clinical</td>
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Total 9

Total Degree Credit Hours 120

---

1 Course must be completed with a grade of C or above prior to enrolling in the nursing program
2 Options include: ARTS 1301, 1303, 1304, 1313; DANC 2303; DRAM 1310, 2361, 2362, 2366; MUSI 1306, 1307 or 1310
3 No course substitutions or CLEP credit
4 No course substitutions
5 Must complete six (6) hours from the following options: HIST 1301, 1302, 2301
6 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
7 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: PSYC 1100, 1300; KINE 1164, 1304, 1338; or EDUC 1300 (one semester credit hour is needed).
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.

<table>
<thead>
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<tr>
<td>Course level = 1st digit</td>
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<tr>
<td>0 = pre-college</td>
</tr>
<tr>
<td>1 = freshman</td>
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<tr>
<td>2 = sophomore</td>
</tr>
<tr>
<td>Credit value = 2nd digit</td>
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<tr>
<td>Credit value of the course, expressed in semester hours. Typically credit value ranges from 0-4 semester credit hours (SCH).</td>
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<tr>
<td>Course ID = 3rd &amp; 4th digits</td>
</tr>
<tr>
<td>The course ID is used to uniquely identify the course within the course name.</td>
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</tbody>
</table>

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**

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<td>DHYG</td>
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<td>Desktop Publishing Word</td>
<td>GRPH</td>
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<td>Diagnostic Electrocardiography</td>
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<td>Diagnostic Medical Sonography</td>
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<td>DMS – Vascular Sonography</td>
<td>DSVT</td>
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<td>MILS</td>
<td>Economics</td>
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<td>Heating, Ventilation &amp; Air Con</td>
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<td>Comm/Jour/Speh/Phot</td>
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ALPHABETIZED COURSE DESCRIPTIONS

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)

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 charge, 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, intersections 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. 3 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: OSHT 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 and Electrical Systems**
The properties of building materials (assemblies), specifications, codes, vendor references, and uses of mechanical, plumbing, conveying, and electrical systems as they relate to architecture for residential and commercial construction. Lab required. Prerequisite: DFTG 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 1321 Illustration Techniques I**
A study of illustration techniques in various media. Emphasis on creative interpretation and the discipline of draftsman's handwriting for visual communication of ideas. Lab required. Prerequisite: ARTS 1316. 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 1394 Special Topics in Animation, Interactive Technology, Video Graphics and Special Effects
Topics address recently identified current events, skills knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Lab required. 3 credit hours. (W)

ARTC 2301 Illustration Techniques II
Advanced study of illustration media and techniques using digital and/or traditional tools. Emphasis on conceptualization and composition. Lab required. Prerequisite: ARTC 1321 or consent of Associate Dean. 3 credit hours. (W)

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 Design
An advanced study of design as it applies to user experience in digital media. Emphasis on form, function as it relates to usability, accessibility, ergonomics, human factors, system performance, branding and content through the development of interface architecture and compositional layouts. The selection and creation of visual assets including the integration of typographic, photographic, illustrative, and design elements. Lab
required. Prerequisites: ARTC 1317, ARTC 1327 and IMED 1316. 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 (may be 2-D, 3-D, color, or combinations thereof)
Elements and principles of art using two- and three-dimensional concepts. Additionally, this is a studio course that allows for further study of the elements and principles of art using two-dimensional and/or three-dimensional concepts. Emphasis is placed on the resolution of complex two-dimensional and/or three-dimensional design problems. Lab required. Prerequisite: ARTS 1311 or ARTS 1312. 3 credit hours. (A) Note: Students should expect additional supply costs.

ARTS 2316 Painting I
Introduction to painting including use of materials, techniques, color study, and composition. Various painting styles will be practiced. Lab required. Prerequisite: ARTS 1316. 3 credit hours. (A) Note: Students should expect additional supply costs.

ARTS 2317 Painting II
Increases the student's ability to use various techniques, color, and composition with acrylics, oils, and other media. Explores realistic and abstract approaches to painting. Emphasis on design, imagination, personal expression and painting style. Lab required. Prerequisite: ARTS 2316. 3 credit hours. (A) Note: Students should expect additional supply costs.

ARTS 2323 Figure Drawing I
Drawing of the life model including instruction in anatomical and creative approaches to figure drawing. Emphasis on personal expression and creativity. Lab required. Prerequisite: ARTS 1316. 3 credit hours. (A) Note: Students should expect additional supply costs.

ARTS 2326 Sculpture I
Study of three-dimensional form and introduction to sculpture techniques including basic methods of modeling, construction, and simple casting procedures. Exploration of various media including stone, wood,
metal, plaster, and paper. Lab required. 3 credit hours. (A) Note: Students should expect additional supply costs.

**ARTS 2333 Printmaking I**  
Introduction to the process of intaglio and relief printing including linoleum cuts, etching, aquatint, collagraph, and monotypes. Lab required. 3 credit hours. (A) Note: Students should expect additional supply costs.

**ARTS 2341 Jewelry/Art Metals I**  
Exploration of wearable and small sculptural forms using non-ferrous and precious metals. Metal construction and jewelry making techniques including soldering, lost wax casting, cold connections, patinas and surface embellishment. Lab required. 3 credit hours. (A) Note: Students should expect additional supply costs.

**ARTS 2346 Ceramics I**  
Introduction to ceramic design and methods including hand building techniques and use of the potter's wheel. Explores clays, glazing, and firing techniques including stoneware and raku. Lab required. 3 credit hours. (A) Note: Students should expect additional supply costs.

**ARTS 2347 Ceramics II**  
Further study of ceramic design, method, and media with exploration of various clays, glaze compositions, and kiln operations. Emphasis on creative expression and personal style. Lab required. Prerequisite: ARTS 2346. 3 credit hours. (A) Note: Students should expect additional supply costs.

**ARTS 2348 Digital Photography I**  
This is a foundational digital photography course. It is a studio art course that explores the potential of the computer hardware and software medium for visual, conceptual, and practical uses in the visual arts. It includes camera operation and professional image workflow, composition, supplemental lighting and exposure control. Lab required. 3 credit hours. (A) Note: Students should expect additional supply costs.

**ARTS 2356 Photography I/Darkroom**  
Introduction to photography: basic camera operations and darkroom techniques; emphasis on visual imagination and design. Lab required. 3 credit hours. (A) Note: Students should expect additional supply costs.

**ARTS 2357 Photography II/Darkroom**  
Intermediate black-and-white course; emphasis on developing a visual language, problem solving, craftsmanship, and learning to edit personal work. Technical considerations include print and negative quality, use of studio lighting, and large format cameras. Lab required. Prerequisite: ARTS 2356. 3 credit hours. (A) Note: Students should expect additional supply costs.

**ARTS 2366 Watercolor I**  
Introduction to watercolor including instruction in the use of brushes, papers, materials, and various painting techniques on wet and dry paper. Gain experience in mixing colors, color methods, and problem solving in the use of technique and in skillful observation of composition and painting style. Lab required. 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 1343 Digital Sound**  
Digitizing sound and incorporating it into video games, multimedia or web projects for various delivery systems. Emphasizes compression issues, sampling, synchronizing, and resource management. Lab required. 3 credit hours. (W)

**ARTV 1345 3-D Modeling and Rendering I**  
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 2301  2-D Animation I  
Skill development in the use of software to develop storyboards and two-dimensional animation including creating, importing, and sequencing media elements to create multimedia presentations. Emphasis on conceptualization, creativity, and visual aesthetics. Lab required. Prerequisite: ARTV 1303. 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 2330  2-D Animation II  
Advanced study of technical aspects of animation. Emphasizes aesthetic design, storytelling and completion of an animation project. Includes application of advanced skills and knowledge. Lab required. Prerequisite: ARTV 2301. 3 credit hours. (W)

ARTV 2335  Portfolio Development for Animation  
A course in the development of a professional portfolio to showcase the student's skills in animation. Includes self-promotion, resumes, portfolio distribution, and interview techniques. Lab required. Prerequisite: Consent of 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)

BCIS 1305  Business Computer Applications  
Students will study computer terminology, hardware, and software related to the business environment. The focus of this course is on business productivity software applications and professional behavior in computing, including word processing (as needed), spreadsheets, databases, presentation graphics, 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 0310, 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 plans 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 0310, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 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.

**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) 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.

**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: BIOL 1406 with a grade of C or better within the last three years, or a passing score of 70% or higher on the A&P I Assessment Test. Beginning Fall 2020, the A&P I Assessment Test will be the only allowable prerequisite for the course. BIOL 1406 contains components that can help students prepare for the assessment test. 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 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 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 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. 3 credit hours. (W)

BMGT 1305 Communications in Management
Basic theory and processes of communication skills necessary for the management of an organization's workforce. 3 credit hours. (W)

BMGT 1307 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 1307 Entrepreneurship and Economic Development
Overview of entrepreneurship as an economic development strategy. Includes community support systems for entrepreneurs. 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)

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)

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 prosocial 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 workplace 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 1331 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 2331 Advanced Food Preparation
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 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. Lab required. 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 spectrophotometry; 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. Lab required. 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 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)

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. Corequisite: CJLE 1506 and CJLE 1512. 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 Blueprint Reading**
Introductory blueprint reading for 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 1301 Introduction to the Construction Industry**
Overview of the construction industry. Additionally, this course will cover basic construction terminology in English and Spanish, outline the process from land acquisition to finished project and provide an introduction to ethical issues facing the industry. 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 Methods and Materials I**
Introduction to construction materials and methods and their applications. Lab required. Prerequisite: OSHT 1305. 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. 3 credit hours. (W)

**CNBT 1346 Construction Estimating I**
Fundamentals of estimating materials and labor costs in construction. 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. Prerequisite: CNBT 1311. 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 2337 Construction Estimating II**
Advanced estimating concepts using computer software for construction and crafts. Lab required. Prerequisite: CNBT 1346. 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 2310 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 cost and work analysis. Additionally, topics include customer service and quality control. Prerequisite: CNBT 1311. 3 credit hours. (W)

**CNBT 2346 Construction Management III**
Advanced course work in construction safety, project management, scheduling, material handling, layout, payment scheduling, and inspection. Additionally, this is a capstone course in which program learning outcomes will be demonstrated. Prerequisite: Consent of Discipline Lead. 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  Introduction to Cinema
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 and Writing; 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 1336  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.) Lab required. Prerequisite: Meet TSI college-readiness standard for Mathematics; or equivalent. 3 credit hours. (A)

COSC 1337  Programming Fundamentals II (Java)
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 1315 or COSC 1436 or consent of
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 (C++)
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 1336, COSC 1420, or consent of Associate Dean or Instructor. 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)

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)

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
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 Math 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: ITSY 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 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: May be repeated one time for additional credit.

**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 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: DFTG 1309. Prerequisite/Concurrent enrollment: DFTG 2319. 3 credit hours. (W)

DFTG 2350  Geometric Dimensioning and Tolerancing
Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

DFTG 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 1223 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 1301 Orofacial Anatomy, Histology and Embryology
The histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification. Lab 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 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 1311 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. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

DHYG 1319 Dental Materials
Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry. Lab required. Prerequisites: CHEM 1405 and DHYG 1331. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

DHYG 1331 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, and CHEM 1405. Major Requirement: AAS-Dental Hygiene. 3 credit hours. (W)

DHYG 1339 General and Oral Pathology
Disturbances in human body development, diseases of the body, and disease prevention measures with emphasis on the oral cavity and associated structures. Prerequisites: DHYG 1227 and DHYG 1261. 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
DHYG 2202 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. 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 2361. Major Requirement: AAS - Dental Hygiene. 3 credit hours. (W)

DHYG 2375 Strategies of Oral Medicine
Case presentation that emphasizes the integration of dental hygiene sciences, critical thinking and the application of evidence based research on an advanced level. Presentations by students include patient case studies and literature reviews for class discussion. Patient case studies integrate knowledge from the areas of research, pharmacology, periodontology, pathology, emergency care, ethics, nutrition, dental radiology and clinical courses that demonstrate the highest quality of care for each patient. Prerequisites: DHYG 1235, DHYG 2201, and DHYG 2361. 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 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 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. Prerequisite: DMSO 1166 3 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 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 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. 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 2367 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 Introduction to Theater
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 body techniques and stage movement; emphasis on character movement and body control. 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 Makeup
Design and execution of makeup for the purpose of developing believable characters. Includes discussion of basic makeup principles and practical experience of makeup application. Lab required. 3 credit hours. (A)

DRAM 1342 Introduction to Costume
Principles and techniques of costume design and construction for theatrical productions. 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 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 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 2336 Voice for the Theater**
Application of the performer's use of the voice as a creative instrument of effective communication. Encourages an awareness of the need for vocal proficiency and employs techniques designed to improve the performer's speaking ability. 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 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 Introduction to Cinema**
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)

**DSAFE 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)

**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)

**ERC 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 1200 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, EDUC 1300, PSYC 1100 or PSYC 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)

**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 summative 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 2105. 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. 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. 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).

**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 0310, 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 Oral Communication, 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: Meet TSI standard for ESLC 0305; or equivalent. 3 credit hours. (D)

**ESLC 0310 ESL Oral Communication, 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. Additionally, emphasis on developing non-native speakers' advanced oral communication and listening competencies. Students practice natural communication regarding abstract concepts in classroom activities by working in dyads and in small and large groups while formal speaking skills are focused upon through delivery of oral presentations. Students participate in advanced level listening activities through interaction both in and out of the classroom and the use of video and audio tapes. Focus is given to students' spoken grammar, pronunciation, vocabulary and exposure to U.S. culture. Lab required. Prerequisite: ESLC 0305, or meet TSI standard for ESLC 0310; or equivalent. 3 credit hours. (D)

**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 Grammar for Non-Native Speakers, Intermediate I
Focuses on Standard English grammar usage for academic purposes. Open only to non-native speakers. Additionally, instruction for non-native speakers of English in all verb tenses (to include past, present, future in simple progressive and perfective forms), passive voice and modals. Course content supports ESLW 0305 objectives for grammar usage. Lab required. Prerequisite: ESL New Student Assessment for ESLG 0305; or successful completion of ESLG 0305. 3 credit hours. (D)

ESLG 0310 Grammar for Non-Native Speakers, Intermediate II
Focuses on Standard English grammar usage for academic purposes. Open only to non-native speakers. Additionally, high-intermediate English grammar course designed for non-native speakers of English for instruction in nouns, noun clauses, gerunds, and infinitives. Course content supports ESLW 0310 objectives for grammar usage. Lab required. Prerequisite: ESLG 0305, or meet TSI standard for ESLG 0305; or equivalent. 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, adverbial phrases, and conditionals. Course content supports ESLW 0325 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 and Vocabulary, Intermediate I
Develops English reading proficiency and vocabulary for academic, career, or personal purposes in speakers of languages other than English and prepares them to function in a multicultural, multilingual society. Additionally, focuses on teaching vernacular vocabulary and syntax in the informal register, context clues, topics, main ideas, supporting details, transitions, and organizational patterns for improving comprehension of abridged academic and literary texts. Lab required. Prerequisites: ESLR 0305 and ESLW 0305, or meet TSI standard for ESL 0310 and ESL 0310; or equivalent. Corequisite: ESLW 0310. 3 credit hours. (D) Note: ESLR 0215, ESLR 0305, ESLR 0310, and ESLV 0310 may be taken for a combined total of no more than 9 credit hours.

ESLR 0310 ESL Reading and Vocabulary, Intermediate II
Develops English reading proficiency and vocabulary for academic, career, or personal purposes in speakers of languages other than English and prepares them to function in a multicultural, multilingual society. Additionally, focuses on teaching vernacular vocabulary and syntax in the informal register, context clues, topics, main ideas, supporting details, transitions, and organizational patterns for improving comprehension of abridged academic and literary texts. Lab required. Prerequisites: ESLR 0305 and ESLW 0305, or meet TSI standard for ESL 0310 and ESL 0310; or equivalent. Corequisite: ESLW 0310. 3 credit hours. (D) Note: ESLR 0215, ESLR 0305, ESLR 0310, and ESLV 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: ESL 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 Writing for Non-Native Speakers, Intermediate I
Focuses on strategies and techniques of writing and composition. Open only to non-native speakers. Additionally, instruction in intermediate writing skills for non-native speakers. Focuses on sentence-level writing and paragraph development. Introduces students to pre-academic, experiential writing. Trains students to develop and organize ideas in description and process modes. Lab required. Prerequisites: Meet TSI standard for ESLR 0305 and ESLW 0305; or equivalent. Corequisite: ESLR 0305. 3 credit hours. (D)

ESLW 0310 Writing for Non-Native Speakers, Intermediate II
Focuses on strategies and techniques of writing and composition. Open only to non-native speakers. Additionally, instruction in high-intermediate writing skills for non-native speakers. Focuses on multi-paragraph essays. Introduces students to academic writing. Trains students to develop and organize ideas in a variety of rhetorical modes. Lab required. Prerequisites: ESLR 0305 and ESLW 0305, or meet TSI standard for
ESLR 0310 and ESLW 0310; or equivalent. 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)

**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)

**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)

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 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)
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 1304  Lighting for Film or Video  
Fundamentals of lighting techniques for film or video production with respect to lighting tools, composition and camera motion to support dynamic storytelling. Prerequisite: ARTV 1351. 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 2305  Film-Style 3-D Animation Production  
Techniques in 3-D animation for film-style production. Lab required. Prerequisite: ARTV 1341 or consent of Instructor. 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)

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 1304  Level Design  
Introduction to the tools and concepts used to create levels for games and simulations. Incorporates level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Includes utilization of toolsets from industry titles. Lab required. Prerequisite: GAME 1303. 3 credit hours. (W)

GAME 1314  Character Sculpting  
Creation of original characters from the drawing stage to sculpting clay status. Explores a variety of poses using clay. Lab required. Prerequisite: ARTV 1345. 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. Prerequisite: ARTV 1345 or consent of Instructor. 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)

GEOL 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 0310, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

GEOL 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: GEOL 1401 or GEOL 1403. 4 credit hours. (A)

GEOL 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 0310, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

GEOL 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: GEOL 1403. 4 credit hours. (A)

GEOL 1445 Oceanography
A study of the various aspects of the ocean, including origins of the ocean, earth's ocean, plate tectonics, ocean sediments, the chemistry of seawater, oceans and climate, currents, waves, tides, coastal features, oceanic ecosystems, protection of coastal areas, and resources of the oceans. Lab required. Prerequisite: Meet TSI standard for MATH 0310, and TSI college-readiness standard for Reading and Writing; or equivalent. 4 credit hours. (A)

GEOL 1447 Introduction to Meteorology
An examination of the Earth's atmosphere, global climate, and associated environmental factors. Includes lab exercises in weather tracking on Weather-Net computer system. Lab required. Prerequisite: Meet TSI
standard for MATH 0310, 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)

**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 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. Prerequisites: COSC 1315 and 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. Prerequisite/Concurrent: 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)

**GRPH 1380 Cooperative Education-Pre-Press/Desktop Publishing and Digital Imaging Design**
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: Consent of Associate Dean. 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: HAMG 1321. 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: 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 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: 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: HAMG 1321. 3 credit hours. (W)

**HAMG 2332 Hospitality Financial Management**
Methods and applications of financial management within the hospitality industry. Primary emphasis on sales accountability, internal controls, and report analysis. Prerequisite: 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: HAMG 1321. 3 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 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 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 1301. 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 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 2361 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 2363 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 2368 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 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)

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
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
Historical, economic, social, and cultural development of minority groups with an emphasis on the experiences of peoples of African descent in the United States from the colonial era to the present. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 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 1160 Clinical I - Health Information/Medical Records Technology
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: HITT 1301. 1 credit hour. (W)

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 about ICD-10. Lab required. Prerequisites: BIOL 2404, HITT 1305 and HITT 1341. 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: HITT 1160 and consent of Program Director. 3 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)

**HITT 2471 Pathophysiology and Pharmacology**
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)

**HPRS 1191 Special Topics in Health Professions and Related Sciences, Other**
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 IAHCSMM 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 IAHCSMM 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 IAHCSMM 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
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 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. Prerequisite: BMGT 1327. 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 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 2316. 3 credit hours. (W)

**IMED 2359 Interactive Web Elements**
Production of projects using current web development tools that may incorporate dynamic data, web graphics, animation, video and audio streaming. Lab required. Prerequisite: IMED 2315 or consent of Instructor. 3 credit hours. (W)

**INDS 1301 Basic Elements of Design**
A study of basic design concepts with projects in shape, line, value, texture, pattern, spatial illusion, and form. Lab required. 3 credit hours. (W)

**INDS 1315 Materials, Methods and Estimating**
A study of materials, methods of construction and installation, and estimating for interior design applications. Lab required. Prerequisite: INDS 1301 or consent of Associate Dean. 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. 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. 3 credit hours. (W)

**INDS 1371  Introduction to Green Design**  
A general study of Green Design and sustainable environment. Explore the basic principles of Green/Sustainable Design including passive solar, alternative energy, green water technology, recycling, green building certification outline, and interior air quality in built environment. Lab required. 3 credit hours. (W)

**INDS 1372  Computer-Aided Drafting for Interior Designers**  
An introduction to computer-aided drafting. Emphasis is placed on setup; general knowledge of CAD software; reading basic blueprint; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; and plot/print to scale; interior furniture layouts. Lab required. 3 credit hours. (W)

**INDS 1373  Green Interiors**  
Course introduces students to Green interior design and built environment. Emphasis is placed on analyzing Indoor Air Quality, green interior material and finishes, green cleaning materials, and providing plans and solutions for creating a healthier interior environment. Lab required. Prerequisite: INDS 1371. 3 credit hours. (W)

**INDS 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)

**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 1337 or ITSE 2317 or consent of Associate Dean. 3 credit hours. (W)
INEW 2340  Object-Oriented Design
A study of large system analysis and design concepts from the object-oriented perspective. Includes determining required objects and their interfaces. Also covers relationships between objects. Lab required. Prerequisite: COSC 1337 or COSC 1437 or consent of Associate Dean. 3 credit hours. (W)

INRW 300  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 315  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 405  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
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)

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
Formerly ITCC 1371 This course covers networking architecture, structure, 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. Additionally, describes the use of OSI and TCP layered models to examine the nature and roles of protocols and services at the applications, network, data link, and physical layers. Covers the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Explains IPv6 network addresses, design considerations for IPv6, managing IOS configuration files, and Integrated Routing Services. Students build simple LAN topologies by applying basic principles of cabling; perform basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. Use common show commands to establish baseline performance and troubleshooting. Lab required. Prerequisite/Concurrent enrollment: ITNW 1358. 3 credit hours. (W)

ITCC 1340 CCNA 2: Routing and Switching Essentials
Formerly ITCC 1374 Describes the architecture, components, and basic operation of routers and explains the basic principles of routing and routing protocols. It also provides an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Additionally, students analyze, configure, verify, and troubleshoot the primary routing protocols and OSPF. Recognize and correct common routing issues and problems. Model and analyze routing processes. This course describes the architecture, components, and operation of switches, and explains the principles of switching, VLANs and Inter-VLAN routing. The essentials of security, address translation and DHCP are also described. Use discovery protocols to map a network topology. Configure Syslog in a small to medium-sized business network. Maintain router and switch configuration and IOS files. Lab required. Prerequisite: ITCC 1314. 3 credit hours. (W)
ITCC 2312 CCNA 3: Scaling Networks
Formerly ITCC 2371 CCNA R&S: Scaling Networks (ScuN) covers the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches using advanced protocols. Additionally, this course helps students develop an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks, how routers operate and are implemented in the LAN environment for small and large networks. Detailed explanations of LAN switch operations, Rapid Spanning Tree Protocol (RSTP), router operations, DHCP, Link Aggregation, EIGRP, Multi-Area OSPF, and IOS File Management and wireless network operations. Analyze, configure, verify, and troubleshoot RSTP, DHCP, Link Aggregation, EIGRP, Multi-Area OSPF and wireless networks. Lab required. Prerequisite: ITCC 1340. 3 credit hours. (W)

ITCC 2313 CCNA 4: Connecting Networks
Formerly ITCC 2372 WAN technologies and network services required by converged applications in a complex network; enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Additionally, it also describes the principles of traffic control, Borderless Networks, Virtualization, Collaboration, Tunneling, IPSec VPN, Syslog Operation, SNMP Operation and provides an overview of the services and protocols at the data link layer for wide-area access. Describes user access technologies and devices and describe how to implement and configure Point-to-Point Protocol (PPP), Point-to-Point Protocol over Ethernet (PPPoE), DSL, and Frame Relay. WAN security concepts, tunneling, and VPN basics are introduced. Discusses the special network services required by converged applications and an introduction to quality of service (QoS). Lab required. Prerequisite: ITCC 2312. 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 1340 or CCENT (ICND1) Certification and consent of Associate Dean. 3 credit hours. (W)

ITCC 2354 CCNP R&S ROUTE
Formerly ITCC 2374 How to implement, monitor, and maintain routing services in an enterprise network. How to plan, configure, and verify the implementation of complete enterprise LAN and WAN routing solutions using a range of routing protocols in IPv4 and IPv6 environments. Configuration of secure routing solutions to support branch offices and mobile workers. Lab required. Prerequisite: ITCC 2313 or CCNA Certification and consent of Associate Dean. 3 credit hours. (W)

ITCC 2355 CCNP R&S SWITCH
Formerly ITCC 2375 How to implement, monitor and maintain switching in converged enterprise campus networks. How to plan, configure, and verify the implementation of complex enterprise switching solutions. How to secure integration of VLANs, WLANs, voice and video into campus networks. Lab required. Prerequisite: ITCC 2313 or CCNA Certification and consent of Associate Dean. 3 credit hours. (W)

ITCC 2356 CCNP R&S TSHOOT
Formerly ITCC 2376 How to monitor and maintain complex, enterprise and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices based on systematic and industry recognized approaches. Lab required. Prerequisites: ITCC 2354 and ITCC 2355 or consent of Associate Dean. 3 credit hours. (W)

ITMT 1371 Configuring and Supporting Microsoft Windows 10 (70-698)
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)

**ITMT 2304 Implementing an Advanced Server Infrastructure**
This course covers managing and maintaining a server infrastructure, planning and implementing a highly available enterprise infrastructure, planning and implementing a server virtualization infrastructure, and designing and implementing identity and access solutions. Additionally, this course is a preparation for the MS 70-414 professional exam. Lab required. Prerequisite: ITMT 1372 or ITMT 2370. 3 credit hours. (W)

**ITMT 2305 Designing and Implementing a Server Infrastructure**
This course covers planning and deploying a server infrastructure; designing and implementing network infrastructure services; designing and implementing network access services and Active Directory infrastructure. Additionally, this course is preparation for the MS 70-413 professional exam. Lab required. Prerequisite: ITMT 1372 or ITMT 2370. 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 1370 Cloud+ Computing Essentials**
A study of the main cloud computing principles, concepts, and architecture from a technical and an enterprise perspective in terms of moving to and governing the three types of cloud environments (private, public and hybrid). Lab required. Prerequisite: ITCC 1371 or 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. Prerequisites: ITMT 1371 and 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. Prerequisites: ITNW 1370, ITNW 2371, and ITSC 1342. 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 1374 or ITCC 1340 and ITMT 2371 or 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 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 1370, ITNW 2371, and ITSC 1342. 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. The Windows operating system will be compared to that of the Mac OS and a popular Linux distribution from the end-user perspective. Hands-on lab experience for each operating system is provided. 3 credit hours. (W)

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 1342 Shell Programming - Scripting
Reading, writing, and debugging shell scripts. Development of scripts to automate frequently executed sequences of commands. Covers conditional logic, user interaction, loops, and menus to enhance the productivity and effectiveness of the user. Intended for programmers who are familiar with operating environments and reading and writing various shell scripts. Lab required. Prerequisite: ITCC 1314. 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 1330 and ITSE 2302 or consent of Department. 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 1337 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. Prerequisite: ITSW 1380 or consent of Associate Dean. 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. Prerequisite: ITSW 1309. 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)

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: ITMT 1371 or 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 2300 or consent of the Associate Dean. Lab required. 3 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.

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.

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.
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 department. 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 1342, 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 Cooperative Work Experience Office. 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 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)

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 0302 Pre-algebra
With an emphasis on developing critical thinking skills, a study of arithmetic operations with rational numbers, an introduction to algebraic expressions, geometric properties, and basic linear equations. Lab required. Prerequisite: Meet TSI standard for MATH 0302; or equivalent. 3 credit hours. (D)

MATH 0305 Beginning Algebra
With an emphasis on developing critical thinking skills, a study of algebraic vocabulary, concepts, and notation, functions, linear equations, systems of linear equations, polynomial expressions, and quadratic expressions and equations. Lab required. Prerequisite: MATH 0302, or meet TSI standard for MATH 0305; or equivalent. 3 credit hours. (D)

MATH 0310 Intermediate Algebra
A study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations. Lab required. Prerequisite: MATH 0305 or MATH 0406, or meet TSI standard for MATH 0310; or equivalent. 3 credit hours. (D)

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 0302, or MATH 0305, or MATH 0406, or meet TSI standard for MATH 0305; 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 0302, or MATH 0305, or MATH 0406, or meet TSI standard for MATH 0305; 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: MATH 0302, or meet
TSI standard for MATH 0305; 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: MATH 0302, or meet TSI standard for MATH 0305; 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 0305, 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 0332 with a grade of C or better, or MATH 0305, 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. 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. 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. 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 or the 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 area. Graphing calculator required. Lab included. Prerequisite: MATH 2412; or equivalent. 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. 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. 4 credit hours. (A)

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 least one credit hour of MUAP course(s). 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 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 least one credit hour of MUEN 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 least one credit hour of MUEN 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 least one credit hour of MUEN 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 course(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 course(s). 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 course(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 course(s). 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 course(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 course(s). 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 course(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 course(s). 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 course(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 course(s). 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-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 MUSE course and at least 4 (four) credit hours to be selected from MUSI, MUSE, 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 MUSE course(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSI, 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 MUSE course and at least 4 (four) credit hours to be selected from MUSI, MUSE, 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 MUSE course(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSI, MUSE, MUSB, or MUSC course(s). 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 2271 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 MUSE course and at least 4 (four) credit hours to be selected from MUSI, MUSE, 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 MUSE course(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSI, MUSE, MUSB, or MUSC course(s). 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 2278 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 MUSE course and at least 4 (four) credit hours to be selected from MUSI, MUSE, 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 MUSE course(es). Remain enrolled in at 4 credit hours of Performing Arts classes (Music, Dance, Theatre), including at least one credit hours of MUSI, MUSE, MUSB, or MUSC course(s). 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.
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 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 repertory of choral literature for mixed voices (S.A.T.B.). This course will focus on the development of vocal technique, performance practices, and will culminate with several performances throughout the year both on and off campus. This group may have an annual tour. Repertoire consists of advanced collegiate music. 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 "B" 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 "B" 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 "B" 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. 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, scales, 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-
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 0302.

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 0310, 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 Assistant/Aide and Patient Care Assistant/Aide
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: NURA 1301 or consent of Program Director. 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  Transition 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 the 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
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
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 Organizations
This course explores the U.S. health care delivery organizations and payment systems. Perspectives of providers, institutions, insures, 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 hours.

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
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
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)

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)

PHOT 6880  Introduction to Adobe AfterEffects - Mac
Create cinematic visual effects and sophisticated motion graphics. Prerequisite: Familiarity with using computer. Required Materials: Text
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 0310, 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 0310, 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 0310, 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 0310, 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 0310, 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 standard for MATH
0310, 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)

**POFI 1307 Proofreading and Editing**
Instruction in proofreading and editing skills necessary to assure accuracy in business documents. Lab required. 3 credit hours. (W)

**POFI 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 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 1100  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. Lab required. 1 credit hour. (A) Note: Students may only take one of the following: EDUC 1200, EDUC 1300, PSYC 1100 or PSYC 1300.

PSYC 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, EDUC 1300, PSYC 1100 or PSYC 1300.

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)

**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)

**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: 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.
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. Prerequisite: 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 1125, RNSG 1128, RNSG 1216, RNSG 1430, 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. Prerequisite: Admission to the AAS - Nursing (RN) Program or consent of Program Director. Major Requirement: AAS - Nursing (RN). 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 - Nursing Transition from LVN/Paramedic/Medic
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 a multi-disciplinary health care team to improve patient/client outcomes. Requires communication/documentation skills, patient/client advocacy, and development of clinical reasoning. Prerequisite: Admission to the AAS - Nursing (RN) (LVN/Paramedic/Medic Bridge) Program. Corequisites: RNSG 1118, RNSG 1128 and RNSG 1324. Major Requirement: AAS - Nursing (RN) (LVN/Paramedic/Medic Bridge) Program. 1 credit hour. (A)

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. Prerequisite: Admission to the AAS - Nursing (RN) Program. Corequisites: RNSG 1125, RNSG 1128, RNSG 1161 and RNSG 1216, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 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, mobility, 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: 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: RNSG1126 and RNSG 2361, or consent of Program Director Major Requirement: AAS - Nursing (RN). 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: 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 2362, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 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 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.

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 1126 and RNSG 1533, 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, 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: 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 2363, or consent of Program Director. Major Requirement: AAS - Nursing (RN). 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
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: RSPT 1410 with a grade of C or better. Major Requirement: AAS - Respiratory Care. 3 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 electroencephalograms. 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 2223 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 2247 Specialties in Respiratory Care
Emerging and specialty practices in respiratory care. An introduction to areas of interest in which the Respiratory Therapist may find application and/or employment. The depth of instruction will provide the indications, expected outcomes, hazards and methods for hyperbaric oxygen (HBO), extracorporeal membrane oxygenation (ECMO), nitric oxide (NO), sleep studies, nutritional assessment, metabolic monitoring, exercise/stress testing, and electroencephalograms. Also includes home care/rehabilitation, and fluid and electrolyte balance. Prerequisite: RSPT 2353. 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 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: CHEF 1305 and HAMG 1321. 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: 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)

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 critical 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)

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/Concurrent enrollment: SGNL 1402. 3 credit hours. (W)

SLNG 1321 Introduction to the Interpreting Profession
An overview of the field of American Sign Language (ASL)/English interpretation. Provides a historical framework for the 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 1321 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. Prerequisites: SLNG 1321 and SLNG 2301. 1 credit hour. (W)

**SLNG 2266 Practicum - Sign Language Interpretation and Translation**
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: SLNG 2301. 2 credit hours. (W)

**SLNG 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. 2 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)

**SLNG 2403 Transliterating**
A practice-oriented course designed to develop skills necessary for rendering spoken English to a signed English format and signed English to spoken English. Lab required. Prerequisites: ENGL 1302, SGNL 2301 and SLNG 2301. Offered Spring semester only. 4 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, Measurement Technology and Characterization Methods Used in Semiconductor Solar Cell Mfg**
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 and 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)

**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 1260 Clinical-Surgical Technology I
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to the Surgical Technology Program. Corequisite: SRGT 1409 or consent of the Program Director. Major Requirement: AAS-Surgical Technology. 2 credit hours. (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 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 1541 Surgical Procedures I
Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, otorhinolaryngology, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Lab required. Prerequisites: SRGT 1260 and SRGT 1409. Corequisites: HPRS 2300 and SRGT 1561, or consent of Program Director. Major Requirement: AAS - Surgical Technology. 5 credit hours. (W)

SRGT 1542 Surgical Procedures II
Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the 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 1541, and SRGT 1561. Corequisites: SRGT 1171, SRGT 2130 and SRGT 2561, or consent of Program Director. Major Requirement: AAS - Surgical Technology. 5 credit hours. (W)

**SRGT 1561 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. 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 1260 and SRGT 1409. Corequisites: HPRS 2300 and SRGT 1541, or consent of Program Director. Major Requirement: AAS-Surgical Technology. 5 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.
TRVM 1323  Group Tour Operations
A study of the role of the group planner, selling to groups, and planning itineraries, including components of a tour package, tour costing, advertising and promotion, group dynamics, and tour guide qualifications. 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 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: TRVM 2301. 3 credit hours. (W)

TRVM 2355  Exposition and Trade Show Operations
An overview of trade shows and exhibitions operations. Prerequisite: 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 1323, TRVM 1327, TRVM 2301, TRVM 2341 and TRVM 2355; or consent of Associate Dean. 3 credit hours. (W)

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 1408  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 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 1434  Introduction to Gas Tungsten Arc Welding (GTAW)
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 1471  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 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 on blueprint reading, cost analysis, and estimation. 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 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. Prerequisites: WLDG 1401, WLDG 1405, and WLDG 1408. 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 1471. 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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