Texas State Technical College

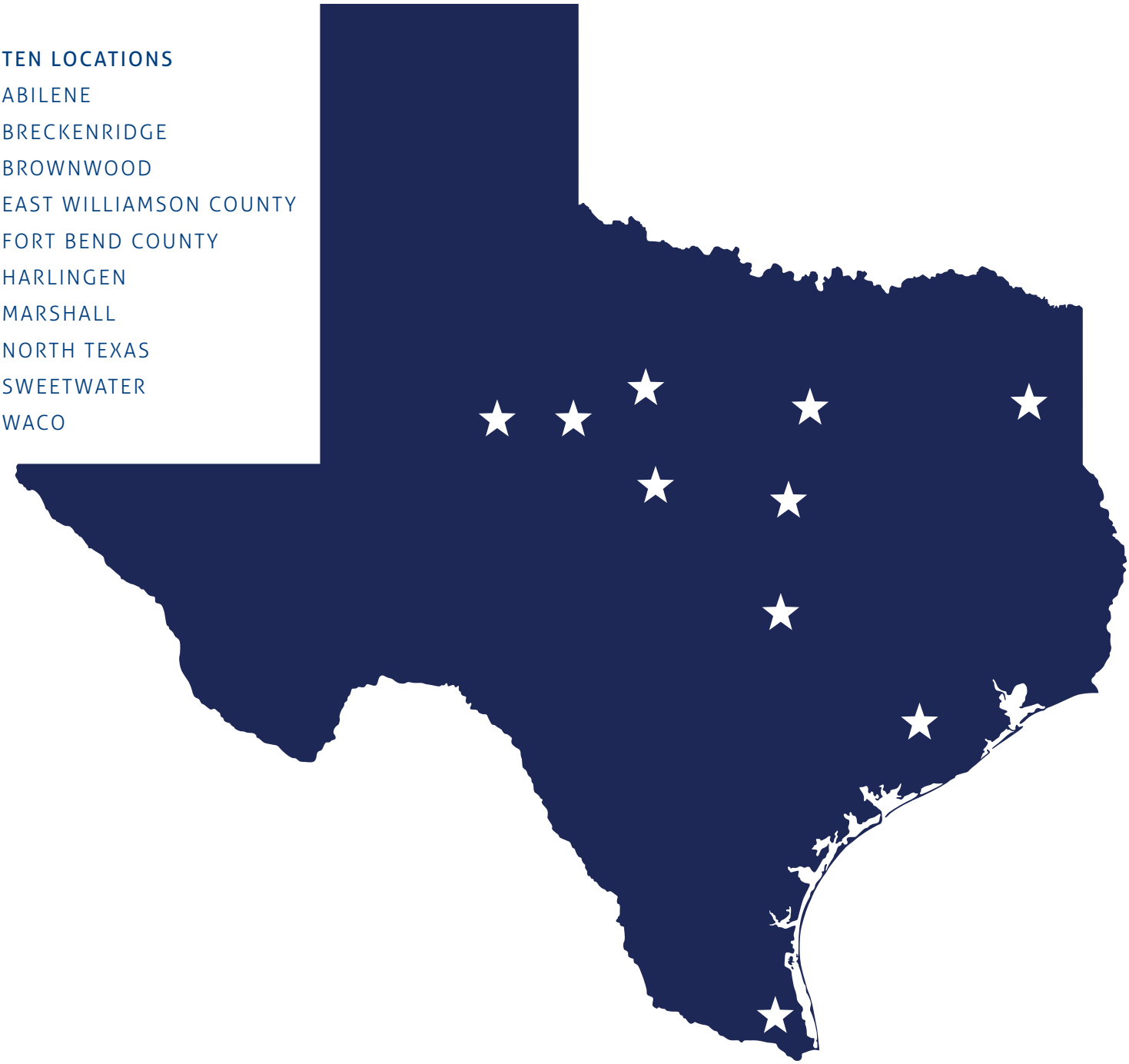
2021–2022 COLLEGE CATALOG & STUDENT HANDBOOK

Rev. 08-21

Map

TEN LOCATIONS

ABILENE
BRECKENRIDGE
BROWNWOOD
EAST WILLIAMSON COUNTY
FORT BEND COUNTY
HARLINGEN
MARSHALL
NORTH TEXAS
SWEETWATER
WACO



Equal opportunity shall be afforded within TSTC to all employees and applicants for admission or employment regardless of race, color, gender, religion, national origin, age, genetic information, disability or veteran status. TSTC will make reasonable accommodations for persons with disabilities. TSTC's policy is that, in all aspects of its operations, each person with a disability shall be considered for admission or access to or treatment or employment in its programs and activities in accordance with Part 84 of Title 45, the regulation implementing Section 504 of the Rehabilitation Act of 1973.

TSTC reserves the right to limit the enrollment of any program and to make any changes in the provisions of this catalog when such action is deemed to be in the best interest of the student or TSTC. TSTC reserves the right to change any of this catalog's provisions, without notice or obligation, in keeping with the policies of the Board of Regents and in conformance with the laws of the State of Texas. This catalog is not a legal document and does not constitute a contract between TSTC and the user.

Table of Contents

TSTC Mission

The Texas State Technical College mission is defined by the Texas State Legislature and published in Vernon's Texas Education Code (TEC) Section 135.01:

Texas State Technical College System is a coeducational two-year institution of higher education offering courses of study in technical-vocational education for which there is a demand within the State of Texas.

Texas State Technical College System shall contribute to the educational and economic development of the state of Texas by offering occupationally oriented programs with supporting academic course work, emphasizing highly specialized advanced and emerging technical and vocational areas for certificates or associate degrees. The Texas State Technical College System is authorized to serve the State of Texas through excellence in instruction, public service, faculty and manpower research, and economic development. The system's economic development efforts to improve the competitiveness of Texas business and industry include exemplary centers of excellence in technical program clusters on the system's campuses and support of education research commercialization initiatives. Through close collaboration with business, industry, governmental agencies and communities, including public and private secondary and postsecondary educational institutions, the system shall facilitate and deliver an articulated and responsive technical education system.

In developing and offering highly specialized technical programs with related supportive coursework, primary consideration shall be placed on industrial and technological manpower needs of the state. The emphasis of each Texas State Technical College System campus shall be on advanced or emerging programs not commonly offered by public junior colleges.

Vision and Values

Vision

Texas State Technical College will be a leader in strengthening the competitiveness of Texas business and industry by building the state's capacity to develop the highest quality workforce.

Values

Excellence	Being held to and delivering a higher standard to our co-workers, ourselves, students, and Texas.
Accountability	Doing what needs to be done and being transparent about the resulting successes and failures.
Service	Delivering genuine experiences to fulfill the needs of our customers.
Integrity	Doing what is right and not wavering.

Texas State Technical College

Texas State Technical College (TSTC) was established in 1965 as the James Connally Technical Institute (JCTI) of Texas A&M University to meet the state's evolving workforce needs. This college was located in Central Texas at the former James Connally Air Force Base in Waco. At the time, Governor John Connally predicted that it would be "the most sophisticated technical-vocational institute in the country."

In 1967, JCTI expanded to include a South Texas campus in Harlingen. In 1969, the colleges separated from Texas A&M University and became an independent state system, with the name Texas State Technical Institute (TSTI) and its own Board of Regents. An additional campus was created in 1970 in the Panhandle of Texas and in Sweetwater in West Texas. As the demand for quality technical education continued to grow, campuses were established in Abilene (1985), Breckenridge (1989), Brownwood (1991), Marshall (1991), East Williamson County and North Texas (2013) and Fort Bend County (2016). In 1991, TSTI was renamed Texas State Technical College.

Today, serving as the state's college for workforce and economic development, TSTC offers new, emerging and customized curriculum at 10 locations in Abilene, Breckenridge, Brownwood, Fort Bend County, Harlingen, Marshall, North Texas, Sweetwater, Waco and East Williamson County. In addition, programs and customized training are offered at partnership centers throughout the state.

TSTC's statewide role and mission is to efficiently and effectively help Texas meet the high-tech challenges of today's global economy in partnership with business and industry, government agencies and other educational institutions. TSTC has high graduation rates, exceptional postgraduate success rates, and an outstanding record in graduating individuals from diverse cultural and socioeconomic backgrounds. Students are served through traditional degree programs, short-term continuing education and corporate training programs.

Among TSTC's strengths are its emphasis toward hands-on learning and its strong relationships with business and industry, state-of-the-art laboratories, residential campuses and student-centered philosophy:

TSTC believes in people and their desire to be responsible and productive citizens. TSTC believes technology is a force to be explored and channeled by people in a productive and responsible manner for the benefit of all humankind. Therefore, TSTC believes all people should be provided with the educational opportunity to learn the skills necessary to perform meaningful work and, thereby, pursue their goals as responsible citizens contributing to the welfare and success of their families, communities, state, nation and world.

Governance and Accreditation

Texas State Technical College is governed by a nine-member Board of Regents and operates under the leadership of the Chancellor and Chief Executive Officer (CEO), whom the Board appoints. Board members are appointed by the Governor of Texas to six-year staggered terms and are confirmed by the Texas Senate. The Board meets a minimum of four times a year to enact policies and take actions that support the successful operation and management of the College.

TSTC Chancellor and Chief Executive Officer
Michael L. Reeser

TSTC Administration
Jonathan Hoesktra, Vice Chancellor & Chief Financial Officer
Jeff Kilgore, Vice Chancellor & Chief Academic Officer
Gail Lawrence, Executive Vice Chancellor & Chief of Staff to the Chancellor & CEO
Rick Herrera, Vice Chancellor & Chief Student Services Officer
Michael Bettersworth, Vice Chancellor & Chief Innovation Officer
Ray Rushing, Vice Chancellor & Chief Legal Affairs Officer & General Counsel

TSTC Board of Regents
Curtis Cleveland, Chair
Tiffany Tremont, Vice Chair
Charles "Pat" McDonald, Executive Committee Place 1
Tony Abad, Executive Committee Place 2
John K. Hatchel, Ex Officio
Keith Honey, Member
Alejandro "Alex" Meade III, Member
Kathy Stewart, Member
Ron Widup, Member

Texas State Technical College (TSTC) is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award Associate Degrees and Certificates of Completion. For questions about the accreditation of Texas State Technical College, contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500.

As a regional accreditor, SACSCOC affirms the accreditation of an institution as a whole. Information about the accreditation status of TSTC can be found on the SACSCOC website. The procedure for filing a complaint against the College is detailed on SACSCOC's **Complaint Procedures Against SACSCOC or its Accredited Institutions** Policy Statement. Filing a complaint with SACSCOC should only address significant, documented, alleged noncompliance with the SACSCOC accreditation standards, policies or procedures. SACSCOC expects individuals to attempt to resolve the issue through all means available to the complainant, including following the institution's own published grievance procedures, before submitting a complaint to SACSCOC.

TSTC is a member of the American Association of Collegiate Registrars and Admissions Officers and is listed in that association's Report of Credit Given.

The following programs are accredited by the:

American Dental Association Commission on Dental Accreditation (CODA)
- Dental Hygiene

Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)
- Health Information Technology

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
- Surgical Technology
- Paramedic

Automotive Service Excellence (ASE) Education Foundation
- Auto Collision & Management Technology
- Automotive Technology

The following programs are approved by the:

Texas Board of Nursing
- Registered Nursing (Associate Degree Nursing)
- Vocational Nursing

Texas Department of State Health Services
- Emergency Medical Services

The following programs are certified by the:

Federal Aviation Administration (FAA)
- Aviation Maintenance Technology

The following programs are recognized by the:

North American Process Technology Alliance (NAPTA)
- Process Operations

Texas Skills Standards Board (TSSB)
- Biomedical Equipment Technology
- Cybersecurity
- Digital Media Design
- Electrical Lineworker Technology
- Process Operations
- Solar Energy Technology
- Wind Energy Technology

The following program is designated by the:
National Security Agency (NSA) and Department of Homeland (DHS) as a National Center of Academic Excellence in Cyber Defense (CAE)
- Cybersecurity (Harlingen Campus)

GENERAL INFORMATION

Student Recruitment Office

Campus Tours

Prospective students and their families are strongly encouraged to visit TSTC before registering for classes. During a campus visit, each prospective student is assigned to a student recruitment representative who serves as a personal contact to help in the transition to college and the admissions process. Contact the Recruitment Office to schedule an appointment with a student recruitment representative and a campus tour.

For general information, please contact the following:

East Texas Region
(Marshall campus)
903-923-3207

North Central Texas Region
(East Williamson County, Waco and North Texas campuses)
254-867-3036

South Texas Region
(Fort Bend County and Harlingen campuses)
956-364-4119

West Texas Region
(Abilene, Breckenridge, Brownwood and Sweetwater campuses)
325-738-3317

Enrollment Center

Admission Requirements

General Admission Requirements

It is the policy of Texas State Technical College (TSTC) that the College admit applicants who declare their intention to enroll in the College. Applicants are allowed to enroll in their selected program upon satisfactory completion of all enrollment and program entrance requirements.

Equal opportunity shall be afforded within Texas State Technical College to all employees and applicants for admission or employment without regard to race, color, religion, gender, national origin, age, genetic information, disability or veteran status.

Admission Categories

Prospective students shall be admitted to TSTC as regular students under the following conditions:

A. High School Graduate - A student shall be admitted upon proof of graduation from an accredited high school with submission of an official high school transcript. A student who graduated from a homeschool shall be admitted once a notarized record of the completed high school equivalent work and the date of successful completion is submitted. This work shall be consistent with TEA minimums for high school completion.
B. College Transfer - A student shall be admitted who had prior attendance at a regionally accredited college or university. A transfer student shall be admitted upon receipt of official transcripts from all previously attended institutions of higher education. Official high school transcripts may also be required for financial aid purposes. Transcripts shall be considered official only when they are signed by the registrar and bear the seal of that college or university and have been received through the mail, hand delivered in a sealed envelope, or received through Standardization of Postsecondary Education Electronic Data Exchange (SPEEDE).
C. General Education Development Test (GED) - A student shall be admitted upon successful completion of the GED or a recognized equivalent as certified by a state education agency or a state authorized examination that the state recognizes as the equivalent of a higher school diploma. A student shall be admitted upon receipt of official GED score report or scores from a state-authorized examination that the state recognizes as the equivalent of a high school diploma.

Individual Approval Categories/Exceptional Admissions:

Prospective students may be granted exceptional admission if they do not qualify under one of the previous categories for regular admission. Students may be admitted under one of the two following Individual Approval Categories:

A. Individual Approval A:
   i. Students age 16 or older who are graduates of an unaccredited high school may be admitted through exceptional admission.
   ii. Students age 17 or older who are attending a course of instruction to prepare for the high school equivalency examination and/or who are considered to be concurrently enrolled in high school or homeschool may be admitted through exceptional admission. High school counselor or parent recommendations shall be required.

iii. Students 18 or older without a high school diploma or CHSE/GED may be admitted through exceptional admission.

B. Individual Approval B:
   i. Dual enrollment students who are currently attending a high school and do not have a diploma or GED may be admitted through exceptional admission under Individual Approval B.

Campus Immunizations

Students who will be attending classes on campus and are ages 22 or younger are required by Texas state law to obtain the Bacterial Meningitis vaccination. Additional vaccinations or boosters may be required for admission into specific programs. Students are encouraged to contact their programs of interest for further details.

Admission Enrollment Procedures

A. Submit an Application for Admissions form which includes core residency questions and a declaration of intent to enroll as a degree-seeking or non-degree-seeking student. All applicants applying for admissions to the College shall be required to complete the information regarding felony charges on the Application for Admissions form. Applicants who answer "Yes" will be required to complete a "Supplemental form" and may be required to submit additional documentation.
B. Submit applicable documents based on the appropriate admission category.
C. Comply with applicable testing requirements:
   i. Submitting TSI Assessment test results; or
   ii. Submitting documentation of TSI exemption or waiver; or
   iii. Taking the TSI Assessment test.
D. Submit compliance with any immunization-related requirements as specified by law.
E. Submit proof of compliance with any established and approved program entry level standards.

Note: All new students are encouraged to attend New Student Orientation.

All documents submitted by applicants who do not register for the term indicated on the admission application will be retained for one year in the Office of the Registrar-Processing Center. At the end of one year, all records are discarded unless the applicant has notified the Enrollment Center of continued interest in attending TSTC. All documents become the property of TSTC and are not returned to the students.

Former TSTC Students

College credit students who were previously enrolled at TSTC but have not attended TSTC for more than one year must reapply by completing the admission enrollment procedures and providing the appropriate required documents.

Readmission of Students

A. Reapplying for admission after an interruption of enrollment of more than one year prior;
B. Comply with applicable testing requirements;
C. Comply with any immunization related requirements as specified by law;
D. Submissions of official transcripts for any College/University previously attended, TxCHSE or High School transcript.

Note: Students who have an interruption or break in the enrollment of more than one year at TSTC and return later to complete their program of study may be required to update their program of study due to changes in the curriculum or modality.

Academic Fresh Start

Texas Senate Bill 1321, entitled "Right to an Academic Fresh Start," allows a person who is a resident of Texas to apply for admission and not have coursework completed 10 or more years prior to the date of anticipated enrollment included as consideration in the admission decision. This allows the student to begin a new course of study with a clear academic record.

A. This is an all-or-nothing option. Students are not able to pick and choose which courses to ignore and which courses to count. This option clears only the student's academic record. If the student chooses the "Academic Fresh Start" option, the student does not receive any credit for any courses taken 10 or more years prior to the re-enrollment. This means that:
   1. Courses taken previously cannot be used to fulfill new prerequisite requirements.
   2. Courses taken previously cannot be counted toward a new degree.
   3. Courses taken previously will not be counted in the student's GPA calculation.
B. The student must still complete the usual admissions process, including providing information on all colleges or universities previously attended and provide official copies of transcripts from all schools attended.
C. Once the "Right to an Academic Fresh Start" provision has been claimed, and the student has enrolled, the provision cannot be reversed.

Note: Academic Fresh start does not apply to the Standards of Academic Progress for Financial Aid. Therefore, students may not qualify for financial aid based on prior academic performance.

Registration for Classes

After the above requirements are met and the required procedures completed, students may register for credit classes. Consult with your faculty advisor, enrollment coach or program enrollment coach and review the TSTC course schedule for more information on these classes. Registration for Workforce Training & Continuing Education programs are different from those described in this section. Contact the Workforce Training & Continuing Education Office for more information.

TSTC reserves the right to cancel a scheduled class due to insufficient enrollment, instructional capacity or other institutional need. TSTC will notify students of cancellations and issue refunds for canceled classes.

Change of Personal Information

Students are responsible for maintaining accurate personal information on their educational records to ensure communication with college departments. Official changes to personal information are made at the Enrollment Center on a Data Change Form although changes of address, email address, and telephone numbers may be made online through WebAdvisor. Some changes require additional documentation as outlined below. All changes are processed immediately upon receipt.

Name changes can be submitted to the Enrollment Center. Students must provide legal documentation, such as an original marriage license or certificate, passport, court order, divorce decree, birth certificate or naturalization papers. A driver's license or Social Security card will not be accepted. Name changes for graduation candidates must be completed by the census date of the semester the student is eligible for graduation.

Social Security number changes must also be completed in person at the Enrollment Center. The student must present an original Social Security card as documentation.

Tuition and Fees

A college education is one of the most important investments a person can make. TSTC is committed to providing access to everyone who can benefit from such an education.

The cost of attending TSTC varies depending on a variety of factors, such as a student's residency status, whether or not the student lives on campus, the program of study and any other services that the student may need. The Financial Assistance section of this catalog defines the types of financial aid that may be available to help pay these costs. This assistance can help provide the financial support students need for tuition, housing, books and other educational items. It is not intended to completely fund a student's education.

The tuition and fees information in this catalog is subject to change without notice.

Tuition

A student's tuition is determined by residency status, the number of hours taken, the type of course and/or program, and whether the courses are for college credit or for continuing education or workforce training. Tuition rates are subject to change on a semester-by-semester basis as approved by the Board of Regents.

Tuition Table Effective Fall 2021

Texas Resident Students - Tier 1
Programs: Aircraft Airframe Technology, Aircraft Powerplant Technology, Associate Degree Nursing (ADN), Electrical Lineworker Technology, Instrumentation Technology, Welding Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$50	$269	$319
2	$50	$538	$588
3	$75	$807	$882
4	$100	$1,076	$1,176
5	$125	$1,345	$1,470
6	$150	$1,614	$1,764
7	$175	$1,883	$2,058
8	$200	$2,152	$2,352
9	$225	$2,421	$2,646
10	$250	$2,690	$2,940
11	$275	$2,959	$3,234
12	$300	$3,228	$3,528
13	$325	$3,497	$3,822
14	$350	$3,766	$4,116
15	$375	$4,035	$4,410

Texas Resident Students - Tier 2
Programs: Biomedical Equipment Technology, Building Construction Technology, Computer Networking & Systems Administration, Culinary Arts, Cybersecurity, Diesel Equipment Technology, Electrical Power & Controls, Medical Imaging Systems Technology, Vocational Nursing (LVN)

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$50	$233	$283
2	$50	$466	$516
3	$75	$699	$774
4	$100	$932	$1,032
5	$125	$1,165	$1,290
6	$150	$1,398	$1,548
7	$175	$1,631	$1,806
8	$200	$1,864	$2,064
9	$225	$2,097	$2,322
10	$250	$2,330	$2,580
11	$275	$2,563	$2,838
12	$300	$2,796	$3,096
13	$325	$3,029	$3,354
14	$350	$3,262	$3,612
15	$375	$3,495	$3,870

Texas Resident Students - Tier 3
Programs: Architectural Design & Engineering Graphics, Architectural/Civil Drafting Technology, Auto Collision and Management, Automotive Technology, Business Management Technology, Chemical Dependency Counseling, Computer Programming, Dental Hygiene, Digital Media Design, Education and Training, Electrical Construction, Emergency Medical Services, Energy Efficiency Specialist, Engineering Graphics and Design Technology, Health Information Technology, HVAC Technology, Industrial Systems-Electrical, Industrial Systems-Mechanical, Medical Office Specialist, Occupational Safety and Environmental Compliance, Precision Machining Technology, Process Operations, Solar Energy Technology, Surgical Technology, Wind Energy Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$50	$197	$247
2	$50	$394	$444
3	$75	$591	$666
4	$100	$788	$888
5	$125	$985	$1,110
6	$150	$1,182	$1,332
7	$175	$1,379	$1,554
8	$200	$1,576	$1,776
9	$225	$1,773	$1,998
10	$250	$1,970	$2,220
11	$275	$2,167	$2,442
12	$300	$2,364	$2,664
13	$325	$2,561	$2,886
14	$350	$2,758	$3,108
15	$375	$2,955	$3,330

Texas Resident Students - Tier 4
Programs: Academic Core, Aircraft Pilot Training Technology, Automation and Controls Technology, Avionics Technology, Biology, Computer Science, Electromechanical Technology, Engineering, Mathematics, Mechatronics Technology, Physics, Plumbing & Pipefitting Technology, Robotics Technology, Visual Communication Technology, Web Design & Development, All technical classes not in Tier 1, 2 or 3, All General Academic Courses

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$50	$161	$211
2	$50	$322	$372
3	$75	$483	$558
4	$100	$644	$744
5	$125	$805	$930
6	$150	$966	$1,116
7	$175	$1,127	$1,302
8	$200	$1,288	$1,488
9	$225	$1,449	$1,674
10	$250	$1,610	$1,860
11	$275	$1,771	$2,046
12	$300	$1,932	$2,232
13	$325	$2,093	$2,418
14	$350	$2,254	$2,604
15	$375	$2,415	$2,790

Notice: The charges listed above may change if the TSTC Board approves necessary updates during the academic year.

Returned-check fee: $50, which is applicable for all types of transactions.

Nonresident Students - Tier 1
Programs: Aircraft Airframe Technology, Aircraft Powerplant Technology, Associate Degree Nursing (ADN), Electrical Lineworker Technology, Instrumentation Technology, Welding Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$170	$269	$439
2	$340	$538	$878
3	$510	$807	$1,317
4	$680	$1,076	$1,756
5	$850	$1,345	$2,195
6	$1,020	$1,614	$2,634
7	$1,190	$1,883	$3,073
8	$1,360	$2,152	$3,512
9	$1,530	$2,421	$3,951
10	$1,700	$2,690	$4,390
11	$1,870	$2,959	$4,829
12	$2,040	$3,228	$5,268
13	$2,210	$3,497	$5,707
14	$2,380	$3,766	$6,146
15	$2,550	$4,035	$6,585

Nonresident Students - Tier 2
Programs: Biomedical Equipment Technology, Building Construction Technology, Computer Networking & Systems Administration, Culinary Arts, Cybersecurity, Diesel Equipment Technology, Electrical Power & Controls, Medical Imaging Systems Technology, Vocational Nursing (LVN)

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$170	$233	$403
2	$340	$466	$806
3	$510	$699	$1,209
4	$680	$932	$1,612
5	$850	$1,165	$2,015
6	$1,020	$1,398	$2,418
7	$1,190	$1,631	$2,821
8	$1,360	$1,864	$3,224
9	$1,530	$2,097	$3,627
10	$1,700	$2,330	$4,030
11	$1,870	$2,563	$4,433
12	$2,040	$2,796	$4,836
13	$2,210	$3,029	$5,239
14	$2,380	$3,262	$5,642
15	$2,550	$3,495	$6,045

Nonresident Students - Tier 3
Programs: Architectural Design & Engineering Graphics, Architectural/Civil Drafting Technology, Auto Collision and Management, Automotive Technology, Business Management Technology, Chemical Dependency Counseling, Computer Programming, Dental Hygiene, Digital Media Design, Education and Training, Electrical Construction, Emergency Medical Services, Energy Efficiency Specialist, Engineering Graphics and Design Technology, Health Information Technology, HVAC Technology, Industrial Systems-Electrical, Industrial Systems-Mechanical, Medical Office Specialist, Occupational Safety and Environmental Compliance, Precision Machining Technology, Process Operations, Solar Energy Technology, Surgical Technology, Wind Energy Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$170	$197	$367
2	$340	$394	$734
3	$510	$591	$1,101
4	$680	$788	$1,468
5	$850	$985	$1,835
6	$1,020	$1,182	$2,202
7	$1,190	$1,379	$2,569
8	$1,360	$1,576	$2,936
9	$1,530	$1,773	$3,303
10	$1,700	$1,970	$3,670
11	$1,870	$2,167	$4,037
12	$2,040	$2,364	$4,404
13	$2,210	$2,561	$4,771
14	$2,380	$2,758	$5,138
15	$2,550	$2,955	$5,505

Nonresident Students - Tier 4
Programs: Academic Core, Aircraft Pilot Training Technology, Automation and Controls Technology, Avionics Technology, Biology, Computer Science, Electromechanical Technology, Engineering, Mathematics, Mechatronics Technology, Physics, Plumbing & Pipefitting Technology, Robotics Technology, Visual Communication Technology, Web Design & Development, All technical classes not in Tier 1, 2 or 3, All General Academic Courses

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$170	$161	$331
2	$340	$322	$662
3	$510	$483	$993
4	$680	$644	$1,324
5	$850	$805	$1,655
6	$1,020	$966	$1,986
7	$1,190	$1,127	$2,317
8	$1,360	$1,288	$2,648
9	$1,530	$1,449	$2,979
10	$1,700	$1,610	$3,310
11	$1,870	$1,771	$3,641
12	$2,040	$1,932	$3,972
13	$2,210	$2,093	$4,303
14	$2,380	$2,254	$4,634
15	$2,550	$2,415	$4,965

Notice: The charges listed above may change if the TSTC Board approves necessary updates during the academic year.

Returned-check fee: $50, which is applicable for all types of transactions.

Performance-Based Education (PBE)
Texas Resident Students - Tier 1

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$50	$269	$319
2	$50	$538	$588
3	$75	$807	$882
4	$100	$1,076	$1,176
5	$125	$1,345	$1,470
6	$150	$1,614	$1,764
7	$175	$1,883	$2,058
8	$200	$2,152	$2,352
9	$225	$2,421	$2,646
10	$250	$2,690	$2,940
11	$275	$2,959	$3,234
12	$300	$3,228	$3,528
13	$300	$3,228	$3,528
14	$300	$3,228	$3,528
15	$300	$3,228	$3,528

Performance-Based Education (PBE)
Texas Resident Students - Tier 2
Programs: Computer Networking & Systems Administration, Cybersecurity

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$50	$233	$283
2	$50	$466	$516
3	$75	$699	$774
4	$100	$932	$1,032
5	$125	$1,165	$1,290
6	$150	$1,398	$1,548
7	$175	$1,631	$1,806
8	$200	$1,864	$2,064
9	$225	$2,097	$2,322
10	$250	$2,330	$2,580
11	$275	$2,563	$2,838
12	$300	$2,796	$3,096
13	$300	$2,796	$3,096
14	$300	$2,796	$3,096
15	$300	$2,796	$3,096

Performance-Based Education (PBE)
Texas Resident Students - Tier 3
Programs: Business Management Technology, Digital Media Design, HVAC Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$50	$197	$247
2	$50	$394	$444
3	$75	$591	$666
4	$100	$788	$888
5	$125	$985	$1,110
6	$150	$1,182	$1,332
7	$175	$1,379	$1,554
8	$200	$1,576	$1,776
9	$225	$1,773	$1,998
10	$250	$1,970	$2,220
11	$275	$2,167	$2,442
12	$300	$2,364	$2,664
13	$300	$2,364	$2,664
14	$300	$2,364	$2,664
15	$300	$2,364	$2,664

Performance-Based Education (PBE)
Texas Resident Students - Tier 4
Programs: Web Design & Development, All General Academic Courses

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$50	$161	$211
2	$50	$322	$372
3	$75	$483	$558
4	$100	$644	$744
5	$125	$805	$930
6	$150	$966	$1,116
7	$175	$1,127	$1,302
8	$200	$1,288	$1,488
9	$225	$1,449	$1,674
10	$250	$1,610	$1,860
11	$275	$1,771	$2,046
12	$300	$1,932	$2,232
13	$300	$1,932	$2,232
14	$300	$1,932	$2,232
15	$300	$1,932	$2,232

Notice: The charges listed may change if the TSTC Board approves necessary updates during the academic year.

Returned-check fee: $50, which is applicable for all types of transactions

Performance-Based Education (PBE)
Nonresident Students - Tier 1

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$170	$269	$439
2	$340	$538	$878
3	$510	$807	$1,317
4	$680	$1,076	$1,756
5	$850	$1,345	$2,195
6	$1,020	$1,614	$2,634
7	$1,190	$1,883	$3,073
8	$1,360	$2,152	$3,512
9	$1,530	$2,421	$3,951
10	$1,700	$2,690	$4,390
11	$1,870	$2,959	$4,829
12	$2,040	$3,228	$5,268
13	$2,040	$3,228	$5,268
14	$2,040	$3,228	$5,268
15	$2,040	$3,228	$5,268

Performance-Based Education (PBE)
Nonresident Students - Tier 2
Programs: Computer Networking & Systems Administration, Cybersecurity

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$170	$233	$403
2	$340	$466	$806
3	$510	$699	$1,209
4	$680	$932	$1,612
5	$850	$1,165	$2,015
6	$1,020	$1,398	$2,418
7	$1,190	$1,631	$2,821
8	$1,360	$1,864	$3,224
9	$1,530	$2,097	$3,627
10	$1,700	$2,330	$4,030
11	$1,870	$2,563	$4,433
12	$2,040	$2,796	$4,836
13	$2,040	$2,796	$4,836
14	$2,040	$2,796	$4,836
15	$2,040	$2,796	$4,836

Performance-Based Education (PBE)
Nonresident Students - Tier 3
Programs: Business Management Technology, Digital Media Design, HVAC Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$170	$197	$367
2	$340	$394	$734
3	$510	$591	$1,101
4	$680	$788	$1,468
5	$850	$985	$1,835
6	$1,020	$1,182	$2,202
7	$1,190	$1,379	$2,569
8	$1,360	$1,576	$2,936
9	$1,530	$1,773	$3,303
10	$1,700	$1,970	$3,670
11	$1,870	$2,167	$4,037
12	$2,040	$2,364	$4,404
13	$2,040	$2,364	$4,404
14	$2,040	$2,364	$4,404
15	$2,040	$2,364	$4,404

Performance-Based Education (PBE)
Nonresident Students - Tier 4
Programs: Web Design & Development, All General Academic Courses

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$170	$161	$331
2	$340	$322	$662
3	$510	$483	$993
4	$680	$644	$1,324
5	$850	$805	$1,655
6	$1,020	$966	$1,986
7	$1,190	$1,127	$2,317
8	$1,360	$1,288	$2,648
9	$1,530	$1,449	$2,979
10	$1,700	$1,610	$3,310
11	$1,870	$1,771	$3,641
12	$2,040	$1,932	$3,972
13	$2,040	$1,932	$3,972
14	$2,040	$1,932	$3,972
15	$2,040	$1,932	$3,972

Notice: The charges listed above may change if the TSTC Board approves necessary updates during the academic year.

Returned-check fee: $50, which is applicable for all types of transactions.

As defined by the Texas Higher Education Coordinating Board, a resident of Texas is a citizen, national or permanent resident of the United States or an alien (foreign or international student) who has been permitted by Congress to adopt the United States as his/her domicile while in this country and who has otherwise met the state requirements for establishing residency for tuition purposes. In Texas, students enrolling in an institution of higher education must have resided in Texas for the 12 months immediately preceding the time of enrollment to be classified as a resident for tuition purposes; otherwise, they are classified as nonresidents. Certain non-U.S. citizens who have resided in Texas for at least 36 months and have graduated from a Texas high school may be considered for classification as a resident for tuition purposes. Contact the Enrollment Center for more information regarding the residency of minors, dependents, members of the armed forces or other special circumstances.

The Aircraft Pilot Training Technology program requires additional fees.

Aircraft Pilot Training: Airplane

Redbird/Simulator Fees:*

Private Pilot	$100: Unlimited time
Instrument Pilot	$200: Unlimited time
Commercial Flight	$100: Unlimited time

Total Airplane Course Simulator Fees: $400

*The simulator hours do not apply to the licensure. The use of the simulator is solely for practice purposes as a training aide. This is a one-time fee per course. Simulator fees shall not be billed for VA education benefits.

Airplane (Fixed-Wing Rates):
C-172 Solo $110 per hour.
Fuel surcharge is $35 per hour.

PA28R Solo $140 per hour.
Fuel surcharge is $35 per hour.

PA44-180 Solo $160 per hour.
Fuel surcharge is $87.66 per hour

Dual and Pre and Post Flight Review and Instruction: $65 per hour.

Fuel is based on (current price per gallon x gallons per hour) + 5 percent. Pre and Post review is instructor and student time only, it is not flight time.

Note: FAA examiner fees for practical flight exams are typically $600 and are charged by the examiner and are the responsibility of the applicant for payment, except for the Instructor rating which is typically $1,000. FAA written exams are currently $165 per test and are the personal responsibility of the applicant for payment.

$1,000 Tuition Rebate for Certain Undergraduates

The tuition rebate program provides a financial incentive for students to complete a bachelor's degree efficiently, taking as few courses outside their degree plan as possible. The program's goal is minimizing the number of courses students take - saving money for the student, the student's parents and the state of Texas.

Students must meet the following eligibility requirements:

- First college course after high school graduation must be taken in Fall 1997 or later;
- Student must have been a Texas resident at all times while pursuing the degree;
- Student must have been entitled to pay in-state tuition at all times while pursuing the degree; and
- Student must not have graduated yet.

For more information on this rebate program, go to www.collegeforalltexans.com.

Student Payments

Student charges for Tuition and Fees are due and payable by dates published each semester to ensure that the student's schedule is not affected. All tuition and fees may be paid by cash, check or credit card at the Student Accounting office or online through the students' TSTC Portal account. Checks are not accepted online.

Note: TSTC may delete your classes for nonpayment, but several factors can prevent your classes from being deleted. Therefore, if you decide not to attend, it is your responsibility to drop your classes by submitting a Course Schedule Change form prior to the established deadline. Failure to drop by the established deadline can result in you being financially and academically responsible for those classes.

The Installment Payment Plan, Emergency Tuition Loan or Student Financial Aid constitute additional forms of payment; however all payment arrangements must be completed by the published deadlines to avoid deregistration from classes.

To save time, please use WebAdvisor to make payments online.

If you want a Payment Plan, please enroll online through WebAdvisor. In the Financial Information section, click on "Online Payments." Then log in again with your WebAdvisor credentials. On the top bar (just below the TSTC logo), click on "Payments" to pay in full, or click on "Payment Plan" to enroll in (or pay toward) a payment plan. You can also review your account information through this page. Please see cashiers if you need assistance, or if paying with cash.

Past Due Accounts

A student with a past due unpaid balance is considered delinquent. Delinquent students may not register for subsequent terms, add classes in the current term or receive an official transcript. Delinquent accounts may be turned over to a collection agency, potentially affecting students' personal credit ratings. Students with delinquent accounts are responsible for the fees of any collection agency, which may be based on a percentage, with a maximum of 30 percent of the debt, and all costs and expenses, including reasonable attorney fees TSTC incurs in such collection efforts after internal collection efforts have failed to result in the full payment of the student's account. Student accounts may be sent to an outside collection agency and may be reported to one or more credit bureau reporting service(s)

Fees

Student fees are determined by a variety of factors, as described in the accompanying table. Not all of these fees apply to Workforce Training & Continuing Education programs. Contact Student Accounting for more information. Fees in force for Fall 2021 are as follows.

TYPE OF FEE	AMOUNT OF FEE	NOTES
Nonresident E-Learning Fee	$300 per semester credit hour	For out-of-state residents enrolled in online learning credit courses. Courses are exempt from all other state and designated tuition.
Testing Center Exam Fee	Cost of exam	Applies to tests taken at TSTC Testing Centers and to TSTC Challenge Exams; Includes fee for test administration
Challenge Exam Fee	$150 per exam	Fee charged per exam validate prior learning and accelerate through course.
Program-specific Fees and Costs	Varies	For some credit programs
Continuing Education/Workforce Training Fees and Costs	Varies	For some courses
Out-of-State Resident and Worker Continuing Education Tuition	At least twice the continuing education tuition rate for the associated course-section	For nonresidents who are brought from outside the state by their employers to attend the course
Credit Award Evaluation Fee	$25 per evaluation	Applies to evaluation of CEUs and/or learning for the purpose of awarding TSTC semester credit
Credit by Exam	$150	
External Certification of Specialty	Cost of exam	
Student Medical Health and/or Accident Insurance	Cost of insurance	Optional, unless required by program
Library Fines	Book items–10 cents per day Non-book items–$1 per day (includes puppets, equipment and media) Lost Item–cost of replacement plus a 10% processing fee	
Locker Rental Fee	$25 per semester	Voluntary fee to reserve a locker for a semester
Background Security Check	Cost of security check	Required for certain programs
Student ID Replacement Fee	$10 per card	
Digital Materials Fee	Cost of materials including administrative fee	Varies by course
Installment Plan Fee	$25 per semester per installment plan	
Installment Plan Late Fee	$25 after 7 business days grace period	
Returned-check Fee	$50 per check	
Audit Fee	Applicable tuition plus $25 per semester credit hour	
Concurrent Enrollment Fee	Regular tuition/fee charges apply	
Handicap Parking Violation Moving Violation Other Offenses	$100— Handicap Parking Violation $40— Moving Violation Other Offenses: $25 - First offense $50 - Second offense $100 - Third offense	Other offenses include, but are not limited to, housing violations, code of conduct violation, smoking in a nonsmoking-designated area and other parking violations
Allied Health Insurance	Cost of Insurance	Required for certain Allied Health programs. Includes malpractice and/or needlestick insurance.
Dental Hygiene Clinical Fee	$100 per clinical course	

Waivers and Exemptions

The tables in this section describe tuition waivers and exemptions for college credit courses. Students classified as Texas Residents for purposes of tuition assessment may be eligible to have all or part of their state tuition and/or designated tuition waived if they qualify for one of the waivers or exemptions. Contact the appropriate office for additional information and to determine eligibility.

In Fall 2014, a law was adopted by State Legislation (SB 1210, passed in 2013). The law requires that students must meet the Financial Aid Standards of Academic Progress (SAP) for certain waivers and exemptions. These standards are outlined under the TSTC Satisfactory Academic Progress policy for Financial Aid. To request an appeal if you fail to meet SAP for a term, you will need to contact your enrollment coach.

WAIVERS & EXEMPTIONS FOR RESIDENTS	OFFICE
Students who are the highest-ranking graduate of their high school class (valedictorian)	Student Accounting
High school graduates who received TANF benefits while in high school	Student Accounting
Children of POWs and MIAs as certified by the U.S. Department of Defense	Veteran Services
Children of disabled Firefighters or Peace Officers as certified by the Texas Higher Education Coordinating Board	Student Accounting
Blind or Deaf Students as certified by the Texas Health and Human Services – Blind and Deaf-Blind Services, and Deaf and Hard of Hearing Services.	Student Accounting/Access and Learning Accommodations
Students in foster or other residential care as certified by the Texas Department of Protective and Regulatory Services	Student Accounting

Students classified as residents or nonresidents for purposes of tuition assessment may be eligible to have all or part of their state tuition and/or designated tuition waived if they qualify for one of the waivers or exemptions listed. Contact the appropriate office for additional information and to determine eligibility.

WAIVERS & EXEMPTIONS FOR RESIDENTS OR NONRESIDENTS	OFFICE
High school students enrolled in class sections for dual high school and college credit may have state and designated tuition waived or reduced	Dual Enrollment
Hazlewood Tuition Exemption for Veterans and their dependents (Hazlewood)	Veteran Services
Students enrolled in more than one Texas public institution of higher education at the same time may have a reduction in minimum state tuition charges	Enrollment Center
Senior citizens 65 years of age or older may audit courses without payment of state and designated tuition	Student Accounting
TSTC employees, their spouses and/or dependents have a reduction in state tuition and a waiver of designated tuition	Human Resources
Students classified as nonresidents of Texas for purposes of tuition assessment may be eligible to pay resident rates if they qualify for one of the waivers or exemptions listed.	Enrollment Center

WAIVERS & EXEMPTIONS FOR NONRESIDENTS	OFFICE
Military personnel stationed in Texas and their spouses and children	Veteran Services
Veteran, spouse/dependent of a non-Texas member of the U.S. Armed Forces whose intent is to make Texas his/her new home.	Veteran Services
Veteran Access, Choice and Accountability Act of 2014 ("Choice Act") Section 702	Veteran Services
Individuals employed at least half time as teachers or professors at Texas institutions of higher education and their spouses and children	Student Accounting
Students whose families transferred to Texas as a part of the State's plan for economic development. Employer company must be certified as eligible by the Texas Higher Education Coordinating Board	Student Accounting
Students who receive a competitive scholarship of at least $1,000	Enrollment Center
Students who reside in a county or parish of Arkansas, Louisiana, New Mexico, or Oklahoma, that is adjacent to Texas in the out-of-state county or parish where a current reciprocity agreement is in effect with a college or university.	Enrollment Center
Students from Mexico or Canada enrolled through a Texas Higher Education Coordinating Board approved Exchange Program	Student Accounting

Students from Mexico who demonstrate financial need	Student Accounting
Nonimmigrant aliens residing in Texas in accordance with NATO treaties and their spouses and children	Student Accounting

Documentation should be submitted by the third class day of the semester.

Installment Payment Plan

College credit students may pay their registration charges (state tuition and designated tuition), campus housing (other than Harlingen family and Waco nonstudent housing) and meal plans on an installment payment plan. In accordance with state law, these students may pay their state and designated tuition in installments for the fall and spring semesters and for certain summer terms.

In order to validate the payment plan option, the initial payment and the signed Installment Agreement must be completed online through the TSTC Portal (or in person) prior to published deadlines.

The payments are due as follows:

Fifteen-Week Term:
- 34 percent prior to published deadlines plus the $25 installment plan fee
- 33 percent prior to the sixth class week
- 33 percent prior to the eleventh-class week

Twelve-Week Summer Term:
- 34 percent prior to published deadlines plus the $25 installment plan fee
- 33 percent prior to the fifth class week
- 33 percent prior to the ninth class week

Less Than Twelve-Week Term:
- 50 percent prior to published deadlines plus the $25 installment plan fee
- Remainder 50 percent before the class week prior to the halfway point of the term

A student who elects to pay in installments will:
1. pay an $25 installment plan fee;
2. be responsible for making payments on or before the due dates established at the time of registration;
3. be charged a late fee of $25 for each payment made more than seven business days after the payment is due;
4. not be able to obtain official copies of his/her student records until the debt is paid in full;
5. be at risk of being dropped or barred from attending classes until the debt is paid or acceptable arrangements are made with Student Accounting; and
6. be responsible for payment of any remaining balance upon withdrawal from the College.

Emergency Tuition Loan

College credit students who are unable to pay their state and designated tuition at the time of registration because of financial hardship may be eligible for emergency tuition loans. Funds are limited and the student must meet several qualifications. Emergency Tuition Loans are due in full approximately 30 days after first class day. Contact Student Accounting for more information.

Housing

Required items include the Housing Application with the appropriate deposit, the Release of Background Information Form and the nonrefundable application fee.

Please see the Housing Office for information regarding room and board.

Student Insurance

Students may purchase accident insurance, malpractice (liability) insurance, or needlestick insurance through Student Accounting (cashiers). Coverage is available each semester through the census date of the student's class(es). Please see the cashiers for rates.

Refunds

Refunds for Changes in Enrollment

The following definitions apply when calculating refunds for changes in enrollment. Changes must occur by the published deadlines. Reduction in course load occurs when a student drops a course(s) having more credit hours than he/she adds, resulting in the student being enrolled in fewer credit hours overall. Withdrawal occurs when a student completely ends his/her enrollment at the College for the current term.

Credit courses are courses for which a student is eligible to earn semester credit hours toward an institutional award, certificate or associate degree. Credit courses also include support courses required for the student's enrollment, such as developmental education, etc.

Refunds for Drops/Reduction in Course Load

Students who drop credit courses and reduce their course loads while remaining enrolled at the College will have their state and designated tuition refunded, based on the official drop date recorded by the enrollment coach or program enrollment coach according to the following schedule. Students who concurrently add and drop the same number of credit hours will not be charged or refunded for these simultaneous transactions if they occur by the published deadlines.

Refunds for semester credit courses are calculated using a formula based on the number of weeks scheduled for a term or class. Students who are enrolled in semester credit hour courses who drop a class or withdraw from school prior to the first class day will receive a 100 percent refund.

Students in semester credit hour courses who officially withdraw from school or drop a course after classes begin will have their state and designated tuition and fees refunded according to the following schedule unless the fees are specifically designated as nonrefundable. Class days are defined as calendar days during which classes are normally scheduled and not the specific days a particular class meets.

Length of Class Term in Weeks	Last Class Day for 70 Percent Refund	Last Class Day for 25 Percent Refund
2 or less	2	n/a
3	3	4
4	4	5
5	5	6
6	5	7
7	7	9
8	8	10
9	9	11
10	9	12
11	10	14
12	12	15
13	13	16
14	13	17
15	14	19
16 or longer	15	20

A refund of normally nonrefundable fees could be approved in cases when the student is not accepted for enrollment by TSTC or when a class is canceled. TSTC reserves the right to withhold refunds when a student is suspended for disciplinary reasons. No refunds will be processed until time has elapsed for a check to clear the bank. Refunds are given to a student after receipt of the withdrawal notice from the Student Enrollment Center. Cash refunds are not permitted. Financial aid balances and other credit balances are disbursed via the BankMobile Card on the date announced at registration.

Refunds for Federal Financial Aid Recipients

Special refund requirements apply to students who receive federal aid that is classified as "Title IV" funds. Title IV funds include awards such as Federal Pell Grant, Federal Supplemental Educational Opportunity Grant (FSEOG), William D. Ford Federal Direct Loans, PLUS loans and other federal awards. Students must attend classes to remain eligible for federal financial aid. Students who consider withdrawing from all classes before completing 60 percent of the semester should contact the Enrollment Center to learn how this will affect their financial aid.

If a student reduces a course load or withdraws from TSTC, the College and/or the student may be required to return federal funds awarded to the student. The student may be eligible for a refund of a portion of the state and designated tuition paid to TSTC for that term.

An unofficial withdrawal is when the student stops participating in all the classes during the semester, and all final grades are F's. Students will be responsible for repaying federal aid determined by a return of Title IV calculation, based on the last date of participation, unless an instructor certifies and documents that the student was participating in at least one class after the 60 percent point of the term or until the end of the term. A term may consist of one or more blocks or modules.

If the student received financial assistance, the refund is returned to the grant, scholarship or loan sources from which the assistance was received.

A federal formula dictates the amount of Title IV aid that must be returned to the federal government by the College and the student. This formula applies to a student who is receiving Title IV funds if the student withdraws from the College before the 60 percent point in time of the term. The percentage of Title IV aid to be returned is equal to the number of calendar days remaining in the term divided by the number of calendar days in the term. Scheduled breaks of five consecutive days or more are excluded from this calculation.

If any funds are to be returned after the refund of Title IV aid, they are used to repay TSTC funds, state funds and other private sources. If there is an unpaid balance, then all aid sources are repaid before any funds are returned

to the student. Funds released to a student due to a credit balance on the student's account do not relieve the student's obligation to repay Title IV funds when the student withdraws.

Order of Return of Title IV Funds

A school must return the Title IV funds to the programs for which the student received aid during the payment period or period of enrollment as applicable, in the following order, up to the net amount disbursed from each source:

1. William D. Ford Unsubsidized Federal Direct Loan (other than PLUS loans).
2. William D. Ford Subsidized Federal Direct Loan.
3. Federal Pell Grant for which a return of funds is required.
4. Federal Supplemental Educational Opportunity Grant (FSEOG) for which a return of funds is required.
5. State, Institutional, Scholarship or other program requiring a refund for enrollment changes.

For more detailed information on the entire refund procedures for Financial Aid students or about the calculation of refund amounts, contact the Student Enrollment Center.

Campus Store Refunds

For restocking fees and return deadlines, contact your local Campus Store.

Textbooks returned must be in saleable condition without broken packaging and original receipt provided by the customer.

Tools, supplies and consumables are nonrefundable, unless they are defective. If they are defective, the items must be returned within three weeks of purchase and must be accompanied by the sales receipt in order to receive a refund.

Housing Refunds

Upon completion and authorization of College Housing clearance documents, refunds will be based on the following TSTC approved fee schedule:

- Refundable portion of security deposit or remaining balance after charges.
- No refunds of rental fee will be given during the last 10 school days of the semester.
- Rent refunds are based on a pro-rated formula.

Refund of Other Fees

No refunds are given for installment plan fees. No refunds are given for health insurance, malpractice insurance, and other miscellaneous student-requested fees after expenses have been incurred by the College.

Financial Assistance

TSTC's philosophy is to provide financial assistance to students who would otherwise be unable to pursue a postsecondary education. However, the primary responsibility for paying the cost of a college education rests with the student and his/her family. Funds are available through the Enrollment Center to supplement those resources and staff members are available to assist students with financial aid questions and concerns.

TSTC offers a variety of financial assistance programs to help eligible students with the cost of attending TSTC. The funds provided through these programs can be in the form of a grant, payment for part-time employment (Federal or State Work-study), Federal Direct Loan, scholarship, or a combination of any of these programs.

A grant is a gift that does not need to be repaid.

The Work-study Program is part-time employment that allows students to earn money and provides them with the opportunity to gain work experience.

Scholarships are funds that are awarded to students to help them with the cost of their education, and scholarships do not have to be repaid. A student may receive a scholarship based on academic merit, financial need, or for other criteria set forth by scholarship donors.

A Federal Direct Loan is borrowed money and must be repaid with interest.

See the Financial Aid website for a complete listing of financial assistance programs.

Financial Literacy

TSTC, joined by other colleges and universities throughout the country, is concerned about student debt and financial literacy. There are many reports and statistics that indicate having high debt affects a student's enrollment, retention, and graduation. Students can meet with an enrollment coach for information on financial planning and assistance with budgeting.

The U.S. Department of Education offers Financial Awareness Counseling online at studentaid.gov. Students can also learn about financial planning, saving, and investing at www.financialliteracy101.org/financial-literacy.

Applying for Financial Assistance

When to Apply

The key to obtaining financial assistance is to apply early. In order to ensure that an aid package is available and ready, TSTC recommends the completed file be received in the Enrollment Center according to the following schedule:

Priority Deadlines
Fall Term - May 1
Spring Term - October 1
Summer Term - March 1

Applications completed by these deadlines are processed for available funds on a first-come first-served basis. Late applications may not have funds available on registration (payment) day, when payment for state and designated tuition is due.

Since financial assistance is not always available by the payment deadline, it is recommended that students make alternative arrangements to pay registration expenses. Contact Student Accounting for information on installment plans or information on emergency tuition loans.

To be eligible for assistance, a student must:

- Complete the Free Application for Federal Student Aid (FAFSA). Be sure to complete the correct application for the year that you are applying for.
- For Fall 2020, Spring 2021 and Summer 2021 semesters, complete the 2020-2021 FAFSA.
- For the Fall 2021, Spring 2022 and Summer 2022, complete the 2021-2022 FAFSA.
- Verification documents and other forms may need to be submitted after the office reviews the application.
- Complete the admissions requirements, be accepted for enrollment, and enroll in an eligible program.
- Meet the TSTC financial aid standards of academic progress.
- Be a United States citizen or an eligible noncitizen.
- Other rules for foreign students and noncitizens may apply.
- Be registered with the U.S. Selective Service (if you are a male born after December 31, 1959). All males residing in the United States are required to register for Selective Service immediately following their 18th birthday. For Selective Service information go to www.sss.gov.
- Must have a high school diploma or a GED (effective after July 1, 2012).
- Not be in default on an educational loan or owe a refund on any federal grants.
- Be registered each semester and pay tuition no later than the 11th class day of the 15-week semester, the 9th class day of the 12-week semester, or by the census date for the class/classes registered for. Students registering after the 11th class day of the 15-week semester, the 9th class day of the 12-week semester or after census date may not be eligible for financial aid for that semester. Other rules apply to short summer sessions and online education courses.

Note: When the student is reported as not attending class prior to census, the student's financial aid eligibility may be affected.

Awards are based on full-time enrollment. Awards will be reduced when students register for less than 12 credit hours.

Determination of Award

TSTC attempts to meet the educational financial needs of students. Financial need is determined by subtracting the parent(s)' and/or student's expected family contribution (EFC, as determined by the Free Application for Federal Student Aid, known as FAFSA), from the total estimated cost of attendance or COA. Educational Financial Need = COA - EFC. Students are awarded aid based on financial need and the availability of funds. Financial aid programs have limited funds; therefore, the Financial Aid Processing Center may not be able to meet the student's financial aid packaging expectations, but it will try to meet the direct educational needs. Students will need to have a balance of gift aid and self-help assistance. Students are responsible for notifying the office about all resources provided to the student.

Student Cost of Attendance Budget (included in COA budget)

Cost of Attendance (COA) at TSTC is based on the number of credit hours that are eligible for Financial Aid funding. The initial calculation of a student's COA is based on full time enrollment. The COA is adjusted based on a student's actual enrollment level on the latest census date for courses in which the student is enrolled within the term.

Transportation and housing costs will be based on the housing code reported on the student's FAFSA.

- Adjustments to the cost of attendance may be considered on a case-by-case basis for child care expenses, excessive transportation costs, purchase of a computer, etc.
- TSTC employees and their eligible dependents are charged the adjusted tuition rate approved by the TSTC Board of Regents.

Due to time constraints, the student may not receive immediate notification of the adjustment; therefore, students should monitor their awards and balances on WebAdvisor.

How to Apply

These are the first steps in applying for financial assistance.

1. Complete the Free Application for Federal Student Aid (FAFSA), using the appropriate federal tax forms at https://studentaid.ed.gov/sa/fafsa. For more information regarding this, contact FAFSA Customer Service at 1-800-433-3243 or TTY: 1-800-730-8913.

or

If you would like the TSTC Enrollment Center to assist you in submitting your FAFSA electronically, please have the following available:

   (a.) You will need records of income earned in the year prior to when you will start school. You may also need records of your parent's income information if you are a dependent student.
   (b.) For the 2020-2021 school year you will need financial information from 2018. For the 2021-2022 school year you will need financial information from 2019. You will need to refer to:
      (i) Your Social Security Number (can be found on Social Security card).
      (ii) Your driver's license (if any).
      (iii) Your W-2 Forms and other records of money earned.
      (iv) Your (and your spouse's, if you are married) U.S. Individual Income Tax Return, foreign tax return or tax return for Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, the Marshall Islands, the Federated States of Micronesia.
      (v) Your parent's Federal Income Tax Return (if you are a dependent student).
      (vi) Your untaxed income records - Social Security, Temporary Assistance to Needy Families, welfare or Veterans Service-Connected Compensation records.
      (vii) Your current bank statements.
      (viii) Your current business and investment mortgage information, business and farm records, stocks, bonds and other investment records.
      (ix) Your alien registration card (if you are not a U.S. citizen).
2. Officially declare a major to the TSTC Enrollment Center and complete the admissions process. Undeclared majors are not eligible for financial aid.
3. Preregister according to College registration dates and guidelines. Please keep in mind that financial aid will only cover courses that are within your degree plan.

If your awards are cleared and you register early, your financial aid will be credited to your student account prior to the start of classes. Additional steps may be required for some types of financial assistance. For example, loans need promissory notes. Certain programs require additional documentation before grant processing. Contact the Enrollment Center for more information and assistance.

You may also find the Estimated Cost of Attendance for 2020-21 and 2021-22 on the website at tstc.edu/admissions/coa.

Packaging Philosophy

The Federal Pell grant is initially awarded based on full-time enrollment status. Adjustments are made based on a student's actual enrollment level; students enrolled for 12 or more credit hours receive the maximum Pell entitlement, nine to 11 credit hours receive 3/4, and six to eight credit hours receive 1/2 the award. Less than half-time students who qualify receive the Pell amount determined for enrollment between one and five financial aid credit hours. TSTC uses the student's latest census date for all classes enrolled for within the term as the official lock date for the term. Adjustments will be made to Pell awards if classes are dropped prior to that date. Other grants, loans, and scholarships may be canceled if the student is enrolled for one to five credits.

Additional financial aid is awarded on a first-come, first-served basis or based on program eligibility. Due to limited funds, preference may be given to full-time students who meet priority deadlines. Students who are enrolled at least half-time may request to be considered for additional assistance. Funds are not guaranteed due to the limited availability.

Denial of Aid and/or Repayment

Financial assistance may be reduced, denied or canceled, and students may owe repayment if they:

- Purposely give false or misleading information (they may be fined $20,000, sent to prison, or both);
- Are on academic/financial aid suspension;
- Owe money to TSTC or the Department of Education;
- Fail to report any changes in circumstances that may affect the award such as assistance from Workforce Innovation and Opportunity Act (WIOA), Department of Assistive and Rehabilitative Services (DARS), outside scholarships, child care assistance and other programs of assistance;
- Withdraw from TSTC or drop below half-time at any time of the semester, or fail to meet eligibility requirements;
- Fail to begin attendance in one or all classes between the first day and census day;
- Are awarded Federal Pell Grant for more than one school for the same period of time;

- Stop attending classes without officially dropping or withdrawing; or
- Fail to notify TSTC about aid awarded at other institutions;
- Default on a student loan;
- Owe overpayment of grants.

Change in Circumstances

Financial aid awards are based on information reported on the financial aid application and the student's enrollment status. Any financial situation that has recently changed because of, but not limited to, loss of job or benefits, death or other hardship may qualify a student for an Special Circumstances Evaluation.

The document is available at the Enrollment Center or can be emailed to you.

Reapplying/Renewal Applications

Financial aid is not automatically renewable. The FAFSA must be submitted each academic year. Applications for the following academic year are available each prior year on October 1. The priority application deadline for the fall semester is May 1. An academic year includes three semesters: fall, spring and summer.

Verification of Information

All applications and forms must be completed carefully and accurately. The Department of Education or TSTC may select your application for verification. Visit the TSTC Portal at portal.tstc.edu to complete the required documents or request them at the Enrollment Center. Parent and/or student/spouse's Federal Income Tax Transcripts, W-2's, Social Security, unemployment, child support paid or received, or other income and benefit documentation may be required. Students are responsible for submitting accurate information in order to prevent a delay in the processing of the application. Failure to complete the verification process will prevent financial aid awarding.

Note: Documents submitted should be official documents from agencies such as IRS, Social Security, Office of Attorney General or other agencies.

Types of Financial Assistance

A variety of resources are available for financial assistance at TSTC. Some of these are included in the following list. Visit the Financial Aid website for more complete information.

- **Federal Pell Grant:** This federal aid program provides financial assistance for obtaining a postsecondary education. It is intended to be the base of a student's financial aid package. Eligibility is based on the student's FAFSA need analysis results, the cost of attendance and enrollment status. Students are only eligible to receive six academic years (600 percent) of Pell Grant funds which is referred to as Lifetime Eligibility Used.

- **Federal Supplemental Educational Opportunity Grant (FSEOG):** This federal aid program helps college students who have exceptional need. The amount of the FSEOG varies according to the availability of other grants, scholarships, loans and student employment. FSEOG funds are limited and are awarded on a first-come first-served basis

- **Texas Public Education Grant (TPEG):** This state program provides financial assistance in obtaining a postsecondary education. Eligibility is based on a student's financial need.

- **Texas Educational Opportunity Grant (TEOG):** These state awards pay state and designated tuition for students who are Texas residents, show financial need and do not have an Estimated Family Contribution greater than the amount determined by the Texas Higher Education Coordinating Board. They must be enrolled in a TSTC certificate or degree-seeking program (Academic Core and non-degree-seeking students are not eligible). Students must be within the first 30 credit hours for consideration. TEOG funds are limited and are awarded on a first-come first-served basis.

- **Federal and State Work-study Program:** The Federal College Work-study Program is funded under the authority of the Economic Opportunity Act of 1964 and subsequent amendments. This program is jointly funded by the federal government under Title IV. In addition, the Texas College Work-study Program provides eligible, financially needy students with jobs, which are partly funded by the state of Texas. All students considered for employment under the Work-study Program are ensured equal employment opportunities without regard to race, color, religion, gender, national origin, age, genetic information, disability, or veteran status.

  Federal and Texas Work-study Programs allow students to work part-time to help them pay for educational expenses. The programs encourage community service jobs as well as work related to the student's chosen program of study. At all times, the priority should be given to the student's academics. Therefore, the Work-study Program is not intended to interfere with the student's education. Student Work-study employees cannot work during scheduled class time.

Students who are interested in applying for the Work-study Program may indicate their interest in work-study on the Free Application for Federal Student Aid (FAFSA) and must apply online for specific jobs at www.tstc.jobs. Students must be meeting the Financial Aid Standards of Academic Progress and be enrolled at least half-time in their program of study in order to be eligible to participate in the Work-study Program. Funds awarded are subject to change due to enrollment status or failure to meet program requirements. A background check is required for some Work-study positions. Some positions (depending on position and location of hire) may require a finger print check. Applicants that apply for a position may be selected for an interview. If a student is selected for an interview by the supervisor of the department for which the student applied, they will be notified by phone and/or email. A selected student will meet with Human Resources staff to complete employment forms.

- **Texas Workforce Commission - Vocational Rehabilitation Services (TWC-VRS):** The Texas Workforce Commission - Vocational Rehabilitation Services (TWC-VRS) provides financial assistance to eligible students whose disability may result in substantial vocational limitations. In order to provide training assistance, TWC-VRS must determine that such training is necessary for employment and that the individual has a good chance of success in the chosen program. Contact your local TWC-VRS office for more information.

- **Workforce Innovation and Opportunity Act (WIOA):** The Workforce Development: Board in your area may offer payment of tuition and/or other expenses to students who qualify for this program. Interested applicants should contact the nearest Workforce Center or call 1-800-457-5600 or 1-800-457-5633. Applications for the program should be made as far in advance of registering as possible.

- **Federal Loans:** Various types of federal loans are available, including the Federal Direct Subsidized, Federal Direct Unsubsidized and Federal Direct Parent Loan. To be certified for a loan, students must first complete the Free Application for Federal Student Aid (FAFSA), as described earlier in the Financial Assistance section. First-time Federal Direct Loan borrowers will need to complete an online entrance counseling and electronically sign a Master Promissory note before completing the loan process.

Student Loan

If the student is on financial aid suspension, the application will not be approved. The student will need to meet satisfactory academic progress guidelines. To be eligible for a loan, students must have a current financial aid application on file, must be enrolled for six credit hours, not be on financial aid suspension or in default, and meet any other current eligibility requirements.

TSTC candidates for graduation who have borrowed a Direct or FFEL loan are required to complete a loan exit counseling session at https://studentaid.gov. This should be done before graduation in order to avoid graduation holds.

NOTE: Other awards may be adjusted accordingly once the Federal Direct Loan has been processed and awarded.

Maximum eligibility period to receive Direct Subsidized Loans

Time Limitation on Direct Subsidized Loan Eligibility for First-Time Borrowers on or after July 1, 2013.

There is a limit on the maximum period of time (measured in academic years) that you can receive Direct Subsidized Loans. In general, you may not receive Direct Subsidized Loans for more than 150 percent of the published length of your program. This is called your "maximum eligibility period." You can find the published length of any program of study in this catalog.

For example, if you are enrolled in a 1-year certificate degree program, the maximum period for which you can receive Direct Subsidized Loans is one and a half years (150 percent of 1 year = 1.5 years). If you are enrolled in a 2-year associate degree program, the maximum period for which you can receive Direct Subsidized Loans is three years (150 percent of 2 years = 3 years).

Your maximum eligibility period is based on the published length of your current program. This means that your maximum eligibility period can change if you change programs. Also, if you receive Direct Subsidized Loans for one program and then change to another program, the Direct Subsidized Loans you received for the earlier program will generally count against your new maximum eligibility period.

The 150 percent limit on Direct Subsidized Loan eligibility is not the same as the financial aid standards of satisfactory academic progress maximum time frame for completion. The Direct Subsidized Loan eligibility limit compares all of your subsidized loan use to the length of your current degree or certificate program. The financial aid standards of satisfactory academic progress maximum time frame is based on 150 percent of the program length as determined by total attempted credits.

To complete entrance counseling: All new TSTC student loan borrowers including transfer students borrowing for the first time at TSTC must complete online entrance counseling. Log in to https://studentaid.gov. You **may**

see a message stating that you have already completed Entrance Counseling, however, you must select "continue" in order to proceed to the Entrance Counseling session. As part of your "Entrance Counseling" please review the information about the 150 percent borrowing regulation at Federal Student Aid.

TSTC Satisfactory Academic Progress

Maintaining Eligibility for Financial Aid

Texas State Technical College (TSTC) Standards of Academic Progress (SAP) are adopted for the purpose of determining continuing eligibility for students who are receiving or applying for financial aid. Academic progress will be reviewed at the end of each term to determine that the student is making satisfactory progress. This review will include all periods of the student's enrollment, even those for which the student did not receive financial aid. Students are expected to be continually aware of their grades. www.calculator.net/gpa-calculator.html.

Financial Aid Standards of Academic Progress

Texas State Technical College evaluates all parts of the Standards of Academic Progress at the end of each term of enrollment.

Students who receive financial aid must be enrolled in an eligible program and must have a declared major in a degree or eligible certificate program. Students are required to maintain the following standards of academic progress (SAP). These standards of measurements shall be used to determine eligibility for all federal Title IV aid, as well as state and institutional aid and for other sources of financial assistance unless the requirements of a particular grant or funding source require additional terms. Some aid programs require higher standards, such as a higher grade point average (GPA) or a specific enrollment status. Students are expected to be continually aware of their progress toward their completion. A student who fails to meet the standard of progress (SAP) will be notified by email at the email address on the student record; however, failure to receive notification will not change the SAP status.

Qualitative Progress Measure: Minimum Cumulative Grade Point Average (GPA)

To continue receiving financial aid, the student is expected to successfully complete their classes with passing grades. You must have at least a 2.00 cumulative GPA (based on all terms of enrollment) and at least a 2.00 term GPA during each period of enrollment. All courses that a student has taken, including transfer credits accepted towards their certificate or degree at TSTC, college level courses and developmental courses will be evaluated.

Quantitative Progress Measure #1: The Pace of Progression or Completion Rate each Semester

TSTC will use standard rounding rules when calculating percentages under the quantitative measurement.

Example – 66.5% will be rounded up to 67%. Rounding can also apply to the qualitative measure.

When you enroll in classes and receive financial aid to pay for those classes, you are expected to successfully complete those classes. Effective July 1, 2011, you must complete at least 67% of the credit hours in which you enrolled during each term. You must also achieve a minimum cumulative completion rate of 67% of all courses attempted during your enrollment. Only passing grades count as successful completions. Incomplete, in progress, failing grades, and drop/withdrawals are not considered completed courses, but are considered attempted courses, and will be calculated in the 67% completion requirement. Pass/fail courses will not be counted in the quantitative calculations. All other courses, including remedial courses are included in the calculation.

Quantitative Progress Measure #2: Maximum Time to Complete a Degree / Program

To ensure that you complete your program in a reasonable amount of time, a limit set by 34 CFR 668.34 has been placed on the number of hours that you can attempt. The limit is 150% of the minimum number of hours required to complete your program. For example, if your degree program requires 60 credit hours for completion, you must complete your degree or certificate program within a maximum of 90 attempted credit hours. Once you reach the 150 % limit or the Financial Aid Processing Center determines that you cannot complete your program within the 150% limit, you will no longer be able to receive financial aid. Several variables are considered when calculating the 150% limit and the satisfactory progression rules. These variables include, but are not limited to:

- All attempted credit hours are counted even if you were not receiving aid to pay for them. Attempted hours are the hours in which you are enrolled, as of the census date, in every term.

- Any transfer hours that are accepted from other colleges and applied toward the completion of your program are counted in the maximum time frame. If you have previously attended any college, you must submit official transcripts from all previous colleges prior to any financial aid being released.
- If you repeat a course, both attempts will be counted in the maximum credit hours and progression calculation, even if you did not receive aid for both attempts. Financial aid will only pay for two attempts in a college level course. Separate rules apply for developmental courses.
- Pass/fail courses will not be counted in the quantitative calculations.
- If you withdraw from a course(s) after the census date for that course, it is still counted as an attempted course and is included in the SAP calculation.
- All periods of enrollment and attempted credits will be evaluated, as they apply to the current program of study, whether or not financial aid was awarded during prior enrollment periods.

When you receive financial aid to help pay for a program of study, you are expected to complete that program within the specified time frame for that program. You should not enroll in classes that are not required for your chosen program of study. Classes not required for your degree plan are not eligible for financial aid. Additionally, audit courses, continuing education courses, previously passed courses and courses for which you enroll after the census date are also not eligible for financial aid.

COVID-19 Procedures

Effective May 11, 2020, Texas State Technical College exercises the exceptions under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act for courses the student does not complete, including pass/fail courses the student does not complete. Per the CARES Act, "[I]n determining whether a student is maintaining satisfactory academic progress, an institution of higher education may, as a result of a qualifying emergency, exclude from the quantitative component of the calculation any attempted credits that were not completed by such student without requiring an appeal by such student." As a result, pass/no pass courses will be ignored from Spring 2020 to Summer 2021 SAP calculations and those courses taken during the Spring 2020 through Summer 2021 terms will not count toward subsequent SAP calculations. Courses that are dropped or not completed due to COVID-19 related circumstances during the Spring 2020 through Summer 2021 terms will not be counted as either attempted or completed courses for purposes of determining quantitative progress, which includes both maximum time frame and pace calculations; and those courses taken during the Spring 2020 through Summer 2021 terms will not count toward subsequent SAP calculations. Since TSTC temporarily ceased operations during the Spring 2020 term for COVID-19 related reasons, the college exercises the exception to consider all dropped and incomplete courses to be for COVID-19 related circumstances.

Waivers and Exemptions

Effective Fall 2014, a new law was adopted by State Legislation (SB 1210, passed in 2013). The law requires that students must meet the Financial Aid Standards of Academic Progress for certain waivers and exemptions.

Change of Major and Transfer Credits

Students receiving financial aid must declare a major in an eligible certificate or degree program. Students should only register for courses approved for their designated degree plan/catalog year.

Change of Major requests will be considered. Change of Major request forms must be submitted to the student's Enrollment Coach. The Enrollment Center personnel will change the student major to ensure that the student's new program is tracked for SAP.

Transfer credits that are applicable to the student's degree plan will be counted in both the attempted and completed credits.

Additional Certificates and Degrees

The student must be meeting SAP requirements. Changing programs will not change a student's current status. The student's time frame and continued eligibility will be re-evaluated at the time of the review.

Additional SAP Rules: Remedial or Developmental Coursework

You may be able to take up to 27 hours of remedial or developmental course work and receive financial aid to pay for those costs. These courses will be included in the qualitative and quantitative measurements for SAP. All courses, including failures, incompletes, in progress or drop/withdrawal are counted toward the maximum 27 credit hour limit. Once you have attempted 27 credit hours of remedial or developmental classes, you will not be able to receive additional financial aid to pay for those courses. Enrollment in these courses is indicated by testing or as recommended by an advisor.

Financial aid will NOT pay for:

- Courses taken by audit
- Courses taken outside of your degree plan requirements
- Courses attempted more than two times (except

remedial/developmental courses)
- Credits exceeding the 27 maximum credits for developmental courses
- Courses previously passed, unless that course grade failed the minimum grade requirement for the program of study. In this case we must have documentation that specifies the minimum course grade required
- Starting July 1, 2011, only two attempts will be approved, if a course was previously passed. A third attempt will not be paid by financial aid.
- Credit hours earned by placement tests
- Continuing education courses
- Courses for which you register after the official census date of the class or for which you begin attendance after the official census date of the class
- Time frame and/or credit hours in excess of the 150% maximum program limit
- Courses taken without having a declared eligible program (enrolled as undeclared, undecided or non-degree seeking)

Failure to Meet the Financial Aid Standards of Academic Progress

Warning
The first time that a student fails to meet the qualitative (minimum 2.0 semester or cumulative GPA) or quantitative requirements (minimum 67% of courses completed for the term or cumulatively), the student will be placed on financial aid warning. The only exception is for exceeding maximum hours, which results in immediate suspension. Students on 'warning' status may receive financial aid, without completing an appeal.

Failing to meet any one of the SAP measurements during the warning period will place a student on suspension.

Suspension
There are several conditions that may place a student on Financial Aid Suspension. The student is responsible for paying all expenses during any enrollment period(s) while on suspension. Students can be placed on suspension after a warning or probation status.
- Reaching the maximum time frame for the program of study can also place a student on suspension.
- A student who fails to meet any of the Standards of Academic Progress measurements during a warning period will be placed on Financial Aid Suspension and will lose eligibility for all financial aid until all SAP measurements have been met. It may take several terms of enrollment to regain eligibility.
- A student who is on Financial Aid Probation and fails to meet the Academic or Success Plan measurements will be placed on Financial Aid Suspension.

Other types of Financial Aid Suspension:

Maximum Time Frame
A student who has reached the maximum time frame for their program of study will be placed on a Maximum Time Frame status, which is a type of financial aid suspension. The maximum time frame is calculated by multiplying the number of hours required for the program by 1.5.

If the College mathematically determines that you cannot complete your program within the 150% limit, you will immediately be placed on Maximum Time Frame.

Once the 150% limit has been met, you cannot regain satisfactory progress or financial aid eligibility for that program of study.

Maximum Time Frame Suspension
A student who has reached the maximum time frame for their program of study and has also failed to comply with another SAP measurement, such as having a term or cumulative GPA below 2.0 or a term or cumulative completion rate below 67% will be placed on maximum time frame suspension.

Reinstatement of Financial Aid Eligibility
If you are on financial aid suspension, for reasons other than reaching the maximum time frame, you may have your aid reinstated in one of the following manners:

1. Continue to attend Texas State Technical College without financial aid until you are able to achieve both:
   - A cumulative GPA of 2.0 or higher along with 2.0 GPA for your last term of enrollment.
   - A 67% cumulative completion rate along with a 67% completion rate for your last term of enrollment.

Once you have met both of these standards, you will once again be eligible to receive aid as long as you continue to maintain academic progress. It may require multiple terms for students with an extremely low GPA and or completion rate to regain financial aid eligibility.

2. File a Satisfactory Academic Progress Appeal demonstrating mitigating circumstances and be approved.

3. If you have reached the maximum time frame for your program of study (150%), you may not regain eligibility to receive additional financial aid unless a SAP appeal or a Time Frame Extension is granted.

Appeal Process

Students who are placed on financial aid suspension, maximum time frame, or maximum time frame suspension may file an appeal based on mitigating circumstances.

Note: Appeals should include supporting documentation.

The student is responsible for any payments and meeting payment deadlines during the appeal process. The student should not miss payment deadlines while waiting for a response. Failure to pay for tuition and fees may result in deregistration. The student is responsible for balances due, if the student withdraws before or after an appeal is denied.

Appeals will only be granted for conditions causing extenuating hardship to the student, such as the death of a family member, illness or injury of the student, or other mitigating circumstances. The appeal should include supporting documentation regarding your mitigating circumstance, such as medical statements or death certificates, or other supporting documentation. Appeals for mitigating circumstances will be considered during a student's enrollment at TSTC on a case by case basis. Submitting an appeal does not guarantee approval of the appeal. Sitting out a semester or more does not change the SAP calculation result. Appeals will be reviewed by Enrollment Coaches and may be appealed to the Assistant Director of the Enrollment Center, whose decision is final.

A suspension appeal must include the following:

- A completed Satisfactory Academic Progress Appeal Form
- A written description of the mitigating circumstances
- Documentation to support any claims
- A description of the steps you have taken to remedy the situation
- A Success Plan showing a plan of action you intend to take for academic success

A maximum time frame appeal must include the following:

- A completed Federal Time Frame Extension form
- A written description of the circumstances
- A degree plan showing the number of hours remaining until graduation

A maximum time frame suspension appeal must include the following:

- A completed Satisfactory Academic Progress Appeal form
- A written description of the mitigating circumstances
- A degree plan showing the number of hours remaining until graduation
- Documentation to support any claims
- A description of the steps you have taken to remedy the situation
- A Success Plan showing a plan of action you intend to take for academic success

Once you are notified of not being eligible for financial aid (financial aid suspension), you have five working days to submit an appeal or up to the subsequent semester census date, whichever comes first.

COVID-19

Effective May 11, 2020, circumstances related to an outbreak of COVID-19, including, but not limited to, the illness of a student or family member, compliance with a quarantine period, or the general disruption resulting from such an outbreak may form the basis of a student's SAP appeal. Documentation for these appeals may consist of the student's statement except in cases requiring proof of illness of student or family member.

Appeal Decisions

Maximum Time Frame Appeal Approved

The student will be placed on an academic plan and their progress will be reviewed at the end of each term. Failure to meet both GPA and completion rate standards will result in suspension from aid.

Maximum Suspension Appeal Approved

The student will be placed on an academic plan and their progress will be reviewed at the end of each term. Failure to meet both GPA and completion rate standards will result in suspension from aid.

Probation

A student will be placed on probation if we determine that he or she should be able to reach both the 2.0 term and cumulative GPA and 67% term and cumulative completion rate requirements at the end of the next term of enrollment. If the student fails to meet any of these standards, he or she will be placed on suspension.

Academic Plan

A student may be placed on an academic plan under which they are able to achieve a 2.0 GPA by the end of their second year of enrollment so that they will be eligible for graduation. While in this status, a student must be making progress according to an academic plan which dictates that a student must achieve a term GPA of 2.0 or higher and a term completion rate of at least 67% in order to continue to retain aid eligibility. The first term that a student is under an academic plan will be a probationary term. If the student complies with the terms of the academic plan, he or she will be making academic progress and can continue to receive aid as long as they meet the conditions of the plan. Failure to achieve these conditions will result in suspension.

Appeal Denied
The student will not be eligible to receive financial aid until he or she meets the Satisfactory Academic Progress (SAP) standards as listed above; both a cumulative 2.0 GPA and a cumulative completion rate of 67%. It may take several semesters in order for a student to regain aid eligibility.

Repayment of Federal Funds: Return of Title IV

If a student receives federal financial aid and stops attending or withdraws from all courses at or before 60 percent of the term is completed, the student will be required to repay all or a portion of the federal aid received, including aid used to pay for college expenses. If the student received a grade of F in all courses for any term, the student will be required to repay a portion of the federal aid received, based on last date of participation, unless an instructor certifies and documents that the student was participating in at least one class after the 60 percent point of the term or until the end of the term. A term may consist of one or more blocks or modules.

For information on the return of Title IV funds, go to www.tstc.edu/financialaid/returnoffunds

Veteran Services

Veteran Services will serve as a centralized point of contact to assist prospective and current veterans, veteran dependents and active duty military students with navigating college resources to ensure a successful college experience. The Veteran Services staff may serve as advocates for student veterans and act as liaisons between the student and other college offices, community resources and the Veteran Affairs Department.

The following services are provided by Veteran Services:
- Application support–FAFSA, Admissions, Hazlewood and GI Bill®.
- TSTC Portal and WebAdvisor training.
- College policies and procedures support.
- On campus job information and referral.
- Veteran benefits information and assistance.
- Coordinate referrals for veterans and their dependents.
- Educationally related printing and faxing support for veterans and their dependents.
- Assistance with scholarship searches and application process.
- Referral to campus Advocacy and Resource Center.
- Tutoring support and referral.
- Computer lab access and support.
- Academic advisement support.
- College credit evaluation support.

Veteran Benefits

TSTC is approved for training service members, veterans and their eligible dependents under the provisions of various laws commonly called the GI Bill®. The student is responsible for tuition and fees not covered by GI Bill® or the Hazlewood Tuition Exemption. A spouse or child of a veteran may receive benefits under certain conditions. The DD form 214 and all official college, university and military transcripts are required. Veterans who are eligible for assistance under any of the Department of Veterans Affairs programs should contact Veteran Services.

Service members, Veterans and dependents are encouraged to review all benefits at benefits.va.gov/gibill before applying for educational benefits. Texas Veterans and their dependents may be eligible for benefits under the Texas Hazlewood Act. The Texas Hazlewood Act encompasses many different tuition exemptions and/or waivers for eligible Veterans and their dependents. Please visit www.tvc.texas.gov to view all eligibility requirements. Texas Veterans interested in using the Hazlewood Tuition Exemption must submit the proper application and all supporting documentations to the Veterans Services Office.

NOTE: All active-duty, reservist or National Guard service members are encouraged to speak with their educational service officer (ESO) or counselor within their military service prior to enrolling at TSTC.

No Show Status
Veterans/Dependents reported as a No Show will have their enrollment certification interrupted and may impact the student's VA education benefits. Overpayment due to a No Show Status is the Veteran's responsibility, and money may be owed to TSTC and/or VA Education Department.

Enrollment Certification
Only classes that earn credit toward the Veteran's VA approved signed degree plan will be certified to VA. Veterans will not be certified for repeat courses that are considered completed. It is the Veteran's responsibility to meet with their enrollment coach or program enrollment coach and register for the required classes. You may request a printout of your program evaluation from your program advisor, Veteran Services or print the Program Evaluation that is available in the TSTC Portal.

Pending Payment Compliance

In accordance with Title 38 US Code 3679(e), Texas State Technical College adopts the following additional provisions for any students using U.S. Department of Veterans Affairs (VA) Post-9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation & Employment (Ch. 31) benefits, while payment to the institution is pending from VA. Texas State Technical College will not:

- Prevent the student's enrollment;
- Assess a late penalty fee to the student;
- Require the student to secure alternative or additional funding;
- Deny the student access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Produce the VA Certificate of Eligibility (COE) by the first day of class;
- Provide a written request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies.

Veterans Guide For Success

Step 1:
Apply for Admissions and complete the required admissions process. (Admissions Checklist.) Veterans are recommended to check their residency status with the Enrollment Center.

If your **HOME OF RECORD** is Texas and you have been discharged within 12 months, please submit a copy of your DD214 (member 4) to the Enrollment Center. Please visit www.collegeforalltexans.com to view other residency waivers available for service members, veterans and/or their dependents.

An acceptance letter containing your student ID number will be mailed to you.

Step 2:
Apply for your GI Bill® and/or Texas Hazlewood Act

Apply for your GI Bill® benefits online at www.va.gov.

- Form 22-1990 for Veterans using (Chapter 30, 33, 1606).
- Form 22-1990e for Dependents and Spouses using Post 9/11 GI Bill® (Chapter 33) transfer of entitlement.
- Form 22-5490 for Dependents and Spouses using Dependents' Education Assistance (Chapter 35).

You will receive a Certificate of Eligibility letter from the Veterans Administration in 4-6 weeks. Please submit a copy of your Certificate of Eligibility to the Veteran Services Office.

NOTE: If you have previously used your GI Bill® benefits at another school then you will have to complete a transfer form. Please visit Veteran Services for assistance with the forms below. An updated Certificate of Eligibility will be required by Veteran Services.

- Form 22-1995 for Veterans
- Form 22-5495 for Dependents or Spouses.

Step 3:
Submit all required documentation

Veterans are required to submit the following documentation to Veteran Services.

1. Certificate of Eligibility (COE).
2. DD Form 214 (member 4).
3. Official military transcripts (Request Official Military Transcripts from the Joint Service Transcript System, or Community College of the Air Force (CCAF)) and university/college transcripts (Submitted to the Enrollment Center).
4. VA Form 22-1995 - When changing major field of study or incoming transfer students.
5. Valid State ID.

Dependents using GI Bill® Chapter 35 or Chapter 33 transfer of entitlements must submit the following documents:

1. Certificate of Eligibility (COE).
2. DD Form 214 (member) - Chapter 33 transfer of entitlement is exempt if Veteran is on Active Duty.
3. Veterans service - connected compensation claim, decision letter (Chapter 35).
4. University/College transcripts (Submit to the Enrollment Center).
5. VA Form 22-5495 - (Chapter 35) when changing degree plan or incoming transfer student.

Step 4:
Apply for Financial Aid

Service Members, Veterans and their dependents are encouraged to apply for Financial Aid using the Free Application for Federal Student Aid. To learn more about financial assistance, please visit our Financial Aid website.

Step 5:
Register with VA eBenefits

Create an eBenefits PREMIUM account to check your deposits from VA along with the history of your enrollment

certification status and months of benefits remaining. You can set up direct deposit or update your address with VA.

To Contact Veterans Services in Your Area:

Abilene, Brownwood, Breckenridge or Sweetwater: 325-738-3347

Fort Bend County: 346-239-3392

Harlingen: 956-364-4386

Marshall: 956-364-4386, 325-734-3626 or 903-923-3228

North Texas: 254-867-4817 or 903-923-3228

Waco or East Williamson County: 254-867-4817

Notes:

- Chapter 33 Veterans who are eligible for Hazlewood can use Hazlewood to "stack" on top of their 33 benefits to pay any remainder of tuition and fees ONLY not paid by Chapter 33 benefits.
- All students must apply for Hazlewood each semester they intend to use the tuition exemption.
- You MUST be enrolled in classes in order for the exemption to be posted. Please do NOT submit the application before enrolling.

Hazlewood Tuition Exemption

TSTC is authorized to grant tuition and fee waivers to qualified resident and nonresident students based on Texas Higher Education Coordinating Board rules. For details, see "Tuition Waivers and Exemptions" in the Tuition and Fees section of this catalog.

Please visit the Texas Veterans Commission (www.tvc.texas.gov) website for more information and eligibility requirements. All Hazlewood Tuition Exemption Application must be submitted to the Veteran Services office for processing.

*NOTE: Effective Fall 2014, a law has been adopted by State Legislation (SB 1210, passed in 2013). The law requires that students must meet the Financial Aid Standards of Academic Progress for certain waivers and exemptions such as the Hazlewood Tuition Waiver. These standards are outlined under the TSTC Satisfactory Academic Progress (SAP policy for Financial Aid).

Scholastic Information

Grading Standards

TSTC measures student achievement of skills, knowledge and competencies through a system of grading standards. Four grades (A, B, C, D) indicate that credit was received and a grade was awarded. One mark (CR) indicates that credit was received but no grade was awarded. One grade (F) and various other marks indicate that no credit was received and no grade points were awarded.

The following system of final grades and marks applies to courses offered in a traditional format. Grades or marks are used by TSTC to report student performance for each course attempted and/or credited toward graduation.

Traditional Grading Standards

Note: Grading standards listed below do not apply to Performance-Based Education (PBE).

Grade	Interpretation	Grade Pts.
A	Excellent/Superior Performance Level	4
B	Above Required Performance Level	3
C	Minimum Required Performance Level	2
D	Below Required Performance Level	1
F	Failure to Meet Performance Requirements	0
P	Pass/Meets Required Performance Level (For use in a developmental course or a specialized course and may be used, at the discretion of the College, for up to six credit hours in a program)	NC
IP	In Progress (For use when a student has not had sufficient time to complete the course due to extended illness or other circumstances beyond the student's control. A grade of IP will be changed to a grade of F if the student does not complete the course requirements by a date specified by the faculty member or within one year, whichever is less.)	NC
IM	Incomplete-Military Leave (For use by students who are called to active military service near the end of a term. A grade of IM will be changed to a grade of W if the student does not complete the course requirements within two years of the date the IM grade was awarded.)	NC
W	Withdrawal	NC
CR	Credit (represents credit for courses that are accepted toward program completion and graduation as a result of transfer from other institutions or programs, advanced standing evaluation, credit by examination, articulation agreements, or other validations of course-required knowledge and skills)	NC

AUD	Audit of Course	NC
S	Satisfactory (for use in Continuing Education courses and programs)	NC
UN	Unsatisfactory (for use in Continuing Education courses and programs)	NC
X	No Grade Assigned	NC
NP	No Pass (represents a grade of "Unsatisfactory" and maybe used at the discretion of the college during critical extenuating circumstances. A grade of "NP" does not meet the required performance level for the course. Grades of "NP" will count as hours attempted, but have no affect on student's GPA.)	NC
FA	Failing (prior to September 1988)	0
I	Incomplete (prior to September 1988)	NC
U	Unsatisfactory (prior to September 1988)	0
WF	Withdrew Failing (prior to September 1988)	0
WP	Withdrew Passing (prior to September 1988)	NC

NC: Not Calculated

Performance-Based Education (PBE) Grading Standards

Technical Courses:

Grade	Interpretation	Grade Pts.
A	Performance significantly and consistently above the required level	4
B	Performance at the minimum required level	3
F	Failure to meet the specific requirements of the course within the allotted time frame	0
IP	In Progress (For use when a student has not had sufficient time to complete the course due to extended illness or other circumstances beyond the student's control. A grade of IP will be changed to a grade of F if the student does not complete the course requirements by a date specified by the faculty member or within one year, whichever is less.)	NC
IM	Incomplete-Military Leave (For use by students who are called to active military service near the end of a term. A grade of IM will be changed to a grade of W if the student does not complete the course requirements within two years of the date the IM grade was awarded.)	NC
W	Withdrawal	NC
CR	Credit (represents credit for courses that are accepted toward program completion and graduation as a result of transfer from other institutions or programs, advanced standing evaluation, credit by examination, articulation agreements, or other validations of course-required knowledge and skills)	NC
AUD	Audit of Course	NC
S	Satisfactory (for use in Continuing Education courses and programs)	NC
UN	Unsatisfactory (for use in Continuing Education courses and programs)	NC
X	No Grade Assigned	NC
NP	No Pass (represents a grade of "Unsatisfactory" and maybe used at the discretion of the college during critical extenuating circumstances. A grade of "NP" does not meet the required performance level for the course. Grades of "NP" will count as hours attempted, but have no affect on student's GPA.)	NC

NC: Not Calculated

Academic, Developmental Education and First Year Seminar Courses.

Grade	Interpretation	
A	Performance significantly and consistently above the required level	4
B	Performance above the required level	3
C	Performance at the minimum required level	2
F	Failure to meet the specific requirements of the course within the allotted time frame	0
IP	In Progress (For use when a student has not had sufficient time to complete the course due to extended illness or other circumstances beyond the student's control. A grade of IP will be changed to a grade of F if the student does not complete the course requirements by a date specified by the faculty member or within one year, whichever is less.)	NC
IM	Incomplete-Military Leave (For use by students who are called to active military service near the end of a term. A grade of IM will be changed to a grade of W if the student does not complete the course requirements within two years of the date the IM grade was awarded.)	NC
W	Withdrawal	NC
CR	Credit (represents credit for courses that are accepted toward program completion and graduation as a result of transfer from other institutions or programs, advanced standing evaluation, credit by examination, articulation agreements, or other validations of course-required knowledge and skills)	NC
AUD	Audit of Course	NC
S	Satisfactory (for use in Continuing Education courses and programs)	NC
UN	Unsatisfactory (for use in Continuing Education courses and programs)	NC
X	No Grade Assigned	NC
NP	No Pass (represents a grade of "Unsatisfactory" and maybe used at the discretion of the college during critical extenuating circumstances. A grade of "NP" does not meet the required performance level for the course. Grades of	NC

"NP" will count as hours attempted, but have no affect on student's GPA.)

NC: Not Calculated

Note: Students who have transcripted courses from a traditional program and move into a PBE program will receive credit for their previously transcripted courses. Grades Received in the original course/s will transfer into the PBE program as determined by the program administrator.

Grade Point Averages

Grade points earned for each course are determined by multiplying the number of points for each grade by the number of credit hours the course carries. For example, a student who takes a three-hour course and earns an "A" accumulates 12 grade points for that course (3 hours X 4 points for an A = 12 points). A student's grade point average is computed by adding the grade point values for all college-level courses for which grade point values may be computed (A, B, C, D, F, FA, U, WF), and dividing this total by the number of credit hours attempted during the same period. Only hours for which grades are awarded are used in calculating the grade point average (GPA).

Term Grade Point Average

The Term GPA is computed for all TSTC college-level courses with grades of A, B, C, D and F recorded during a specific term. Developmental education courses are excluded from the Term GPA calculation.

Cumulative Grade Point Average

The Cumulative GPA is computed for all TSTC college-level courses using all grades and grade points earned since enrolling at TSTC. Developmental education courses are excluded from the Cumulative GPA calculation. The Cumulative GPA is used to qualify students for graduation and for graduation honors.

Standards of Progress Grade Point Average

A Term and Cumulative Standards of Progress GPA is computed using all TSTC college-level and developmental education courses. The Standards of Progress GPAs are used for determining scholastic standing, term scholastic honors and financial aid eligibility. See "Financial Aid Standards of Academic Progress" in the Financial Aid section for more information.

Scholastic Standing

TSTC's scholastic standards are based on a philosophy of advancing student progress toward successful course and program completion. The criteria for scholastic standing are designed to monitor student progress so that faculty and staff can intervene and assist students who have difficulty meeting minimum requirements. Scholastic standing is computed at the end of each enrollment period and is based on the Standards of Progress (SOP) Term and Cumulative GPAs.

Good Standing

A student who maintains minimum 2.00 standards of progress cumulative and term grade point averages will be in good academic standing.

Scholastic Probation

A student whose standards of progress cumulative and or term grade point average is below 2.00 at the end of an enrollment period is placed on scholastic probation. A student may continue on scholastic probation by achieving a minimum standard of progress term grade point average of 2.00 at the end of the enrollment period. A student is removed from scholastic probation when the standards of progress cumulative and term grade point averages are 2.00 or higher.

Scholastic probation is a serious warning that the quality of the student's work must improve in order for the student to continue enrollment in the College. Students on scholastic probation are required to meet with a program advisor, enrollment coach or program enrollment coach prior to registration and may be required to enroll in special programs or courses in order to improve grade point average. After meeting with a program advisor, enrollment coach or program enrollment coach prior, the student may be permitted to enroll in a new program while on scholastic probation.

Scholastic Suspension

A student on scholastic probation who fails to achieve a Standards of Progress Term GPA of 2.00 or higher may be suspended for a time period designated by the College (a minimum of one semester). A suspended student may obtain an application for a waiver of a suspension from a designated the Helping a TSTC Student Succeed (HATSS) representative and file it on each local campus. At the end of the suspension period, the student shall be permitted to reapply for admission. A student who re-enters the College after having been suspended shall be placed on scholastic probation status and shall be subject to the minimum requirements governing scholastic probation.

Term Scholastic Honors

Full-time students as of the end of term who earn a standards of progress term grade point average of 3.50-3.99 shall be recognized with the notation of Scholastic Excellence on the official transcript.

Full-time students as of the end of term who earn a standards of progress term grade point average of 4.00 shall be recognized with the notation of Chancellors Honor Roll on the official transcript.

Graduation Scholastic Honors

Graduation honors will be awarded to students who graduate from a credit program based on the following cumulative grade point averages:

Board of Regents Honors: 4.00
With Honors: 3.50 - 3.99
Graduation honors will be listed on the official transcript.

Notification of Grades

Students are expected to monitor their academic progress. Student grades are available upon course completion and students can view grades by accessing WebAdvisor. Students should review the grade reports for accuracy. All requests for review or correction must be submitted to the enrollment coach or program enrollment coach within 12 months of the close of the semester in which the course was taken.

Grade Changes

Student grades are among the most important records kept by the College. Policies and procedures ensure the privacy and integrity of student grade records and, at the same time, provide students a process to appeal final course grade decisions. The following policies and procedures must be followed to request a grade change.

- A grade change must be requested within 12 months of the issuance of a grade.
- A grade may be changed due to an error, a student completing course work previously graded "IP" (In Progress), or a fact-supported finding by appropriate members of the administration or appeal committee operating in accordance with established college procedures.
- A grade cannot be changed to a "W" (Withdrawal) unless doing so is in conjunction with an administrative drop or withdrawal from the College that is approved in accordance with college procedures.
- A change of grade form must be completed, noting the reason for the grade change and signed by the student's instructor, appropriate department designee and the Registrar.
- Upon receipt of the completed and signed grade change form, the Registrar makes the official change to a student's transcript record.
- A copy of the change of grade form is placed in the student's permanent file for audit purposes.

Transcript of Credit

The transcript of credit is an official statement of the student's complete academic record accumulated at TSTC. Upon a written or Web request to any TSTC campus, the Enrollment Center will release official transcripts to the student or to a third-party that is authorized by the student to receive the transcript. Normally, the minimum time for processing such requests is 24 hours; however, transcripts requested at the end of a term or during holidays may take longer for processing.

Students who request transcripts prior to the end of a term, with current courses and grades to be included in the transcripts, must clearly note the current work as part of the request. Official transcripts may be withheld due to any financial debt, pending disciplinary process or if official transcripts have not been received from previously attended institutions. Students who have not complied with all exit requirements will not be provided with transcripts.

Classification

Students are classified as freshmen if they have earned less than 30 hours of college credit. They are classified as sophomores if they have earned 30 to 72 hours of college credit.

Course Load

Students in good standing may register for course loads equivalent to those specified in their instructional programs.

Students may register for less than normal loads but must register for a minimum of 12 credits to be considered full-time. Students who are making unsatisfactory progress or carrying excessive outside work may be required by department chairs or faculty advisors to register for less than normal loads.

Students may register for up to 18 credits with the approval of the faculty advisor. Enrollment for more than 18 credits requires approval of the appropriate department designee.

Texas Success Initiative (TSI) Requirements

In the Fall 2013 semester, the Texas Success Initiative (TSI) established college readiness standards for incoming students who have declared a certificate level II or associate degree program (42 hours or more) and are not otherwise exempt from testing. The TSI Assessment 2.0 (TSIA2) is designed to help higher education institutions determine if students are ready for college-level coursework in the general areas of English Language Arts, Reading and Math. If the student does not meet testing requirements, the assessment will also help with student placement in courses that will aid in the preparation of student skills for college-level classes. For the latest exemptions please visit the Testing Center website.

TSI Advisement

Students who do not meet TSI standards must meet with the identified enrollment coaches at each campus. Enrollment coaches will work with students to establish an individualized Academic Success Plan. The Academic Success Plan is developed for each individual student according to the specific needs of the student and may include enrollment in developmental courses, tutorials, laboratories and/or other non-course-based activities to prepare the student for college-level coursework. The Plan will specify the appropriate measure for determining a student's college readiness. Academic Success Plans may include provisions for students to retake the TSIA2, subject to availability. For a list of identified enrollment coach(es) please visit the Enrollment Center in the Portal.

TSI Test Standards

The following table provides the minimum passing scores on the TSI Assessment taken August 26, 2013 to January 10, 2021.

Reading: 351

Writing: Essay Score of 5 or higher; or Essay Score of 4 and Multiple-Choice of 340 or higher

Math: 350

The following table provides the minimum passing scores on the TSI Assessment 2.0 (TSIA2) taken January 11, 2021 or after.

ELAR: Essay Score of 5 or higher and Multiple-Choice of 945 or higher; or Essay Score of 5 or higher and Multiple-Choice of 910-944 and Diagnostic Score of 5 or higher

Math: 950 or higher; or 910-949 and Diagnostic Score of 6

TSI Testing Schedule

The TSIA2 and Pre-Assessment Activity are administered at the Testing Center. Check with the Testing Center for specific dates and times at each campus. The TSIA2 and Pre-Assessment Activity are computer-based and can only be offered in a paper format for those with documented disabilities. For special accommodations, students are encouraged to make arrangements at least two weeks prior to test date. Please be advised that late requests will be considered, but cannot be guaranteed. For more information please contact the Access and Learning Accommodations Office at your campus.

Exemptions from TSI Requirements

1. Students who meet the score standards for ACT, SAT, STAAR, TAKS or TAAS tests may be exempt in a specific skill area if the tests have been taken within the approved time frame. Students must provide official scores to the Testing Center prior to enrollment in order to qualify for this exemption. For a list of qualifying scores please visit the Testing Center website.
2. A student who has graduated with an associate or baccalaureate degree from an institution of higher education.
3. A student who transfers to an institution from a private or independent institution of higher education or an accredited out-of-state institution of higher education and who has satisfactorily completed college-level coursework as determined by the receiving institution.
4. A student who has previously attended any institution and has been determined to have met readiness standards by that institution. For students meeting non-algebra-intensive readiness standards in mathematics as defined in §4.59(d)(1)(B) of title 19 part (relating to Determination of Readiness to Perform Entry-Level Freshman Coursework), institutions may choose to require additional preparatory coursework/interventions for algebra-intensive courses, including MATH 1314/1324/1414 (or their local equivalent).
5. A student who is enrolled in a certificate program of one year or less (Level-One certificates, 42 or fewer semester credit hours or the equivalent) at a public junior college, a public technical institute, or a public state college.
6. A student who is serving on active duty as a member of the armed forces of the United States, the Texas National Guard, or as a member of a reserve component of the armed forces of the United States and has been serving for at least three years preceding enrollment.

7. 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.
8. A student who successfully completes a college preparatory course under Texas Education Code §28.014 is exempt for a period of twenty four months from the date of high school graduation with respect to the content area of the course. This exemption applies only at the institution of higher education that partners with the school district in which the student is enrolled to provide the course. Additionally, an institution of higher education may enter into a Memorandum of Understanding with a partnering institution of higher education to accept the exemption for the college preparatory course.
9. A student who meets the college readiness benchmark on the state's approved high school equivalency (HSE) exam. The HSE exemption is valid up to five years from the date of testing.

College-level Courses

TSTC has designated courses to satisfy requirements with TSI standards. Students who transfer from regionally accredited institutions of higher education with grades of D or higher in these courses (or equivalents) are determined to be "college ready." Students must submit official transcripts indicating successful completion of the course(s). For more information, please visit the Enrollment Center.

Advising

Texas State Technical College recognizes advisement as an essential contributor to the educational experience, student learning, and student success. TSTC provides strong institutional support and has developed a comprehensive advisement program to support student success. In support of student success, advisement services are designed to guide students through the various levels of the college experience to enable them to realize their personal, career, and educational goals, as well as prepare them for lifelong learning. Advisement services are available to all degree and non-degree-seeking prospective and current students.

TSTC students are responsible for:

- seeking advisement;
- understanding assessments and Texas Success Initiative (TSI) requirements for their program of study;
- enrolling in courses in the appropriate sequence to ensure progress and success toward their educational objectives; and
- understanding and adhering to all policies and procedures.

Each TSTC campus provides faculty program advisors and identified staff to assist with TSI advisement. Students should consult WebAdvisor for their primary advisor assignment.

New Student Advising

During the admissions process an Enrollment Center staff member acts as a guide for new students to make sure all admissions requirements are met. All new students are encouraged to contact an enrollment coach to begin the advising process prior to or upon completing the admissions requirements.

New Student Orientation

After the registration process, students will be advised of the campus New Student Orientation (NSO) schedule. New Student Orientation is a great way to begin your TSTC journey off in the right direction! You will be introduced to campus resources and learn how to get involved with campus activities. For details visit www.tstc.edu/nso.

Faculty Program Advisor

Program advisement will continue throughout the student's enrollment. All students are assigned a faculty program advisor based on their major and a staff enrollment coach. Students are responsible for scheduling an appointment with a faculty program advisor, prior to registering for the subsequent semester. Faculty program advisors will inform students of any restrictions that may prevent them from registering. It is the student's responsibility to clear all restrictions. Faculty program advisors can assist with:

- Program admission requirements, if applicable.
- Degree and certificate completion, program changes.
- Licenses or certification for job placement.
- TSI compliance, as needed.
- Program completion time, course transfer, and substitutions.
- Time commitment to lecture and lab.
- Opportunities for career assessment and advisement.
- First Year seminar (TSTC 1101) requirement.
- Maintaining academic and Financial Aid Standards of Progress.
- Departmental participation policy.
- Dropping/adding class(es) or withdrawing from the College.
- Job placement, gainful employment information, and job market expectations.
- Applying for graduation.

Students will meet with the program advisor each semester to make sure that the student is meeting all of the requirements to successfully graduate from the program.

Enrollment Center

Current/Returning Student Advising

Program Enrollment coaches in the Enrollment Center assist in the retention and advising of current and returning students. Assistance includes continuing registration advising, maintaining financial aid, managing the Early Alert system which serves as an intervention tool when faculty request assistance, monitoring and grading Quest for Success modules in Moodle for students on Academic Probation, clearing students on Academic Suspension approved by the HATSS Mentoring Program, financial aid appeals and monitoring progress toward graduation.

The Enrollment Center staff work on a caseload management basis with students from census date of their first semester throughout graduation.

Testing Center

The Testing Center offers the TSI Assessment 2.0 (TSIA2). Selected TSTC campuses may offer high school equivalency exam testing, CLEP and professional certification exams. For a complete list of assessments and tests please visit the Testing Center web page at tstc.edu/testing.

Nontraditional Services

Nontraditional occupations for females and males are defined as "a field in which either gender comprises less than 25 percent of the current enrollment." Each TSTC campus provides services to assist qualifying students that are enrolled full-time in a declared nontraditional program of study leading to an Associate Degree or Certificate. For more information on services provided to nontraditional students please consult the following individuals:

East Williamson County
Campus Enrollment Executive
512-759-5907

Fort Bend County
Coordinator of Retention Services
346-239-3233

Harlingen
Coordinator of Support Services
956-364-4305

Marshall
Campus Enrollment Executive
903-923-3231

North Texas
Campus Enrollment Executive
972-617-4724

Waco
Coordinator of Support Services
254-867-3066

West Texas (Abilene, Breckenridge, Brownwood and Sweetwater)
Director of Support Services
325-236-8292

Services are funded through the Carl D. Perkins Vocational & Applied Technology Act and are contingent upon the availability of funds during the pertinent semester and the adherence to program policies.

First Year Seminar Courses (TSTC 1101 and TSTC 1102)

All current TSTC students and all transfer students with fewer than 24 Semester Credit Hours (SCH) are required to take a first year seminar course, TSTC 1101 or TSTC 1102. The course catalog degree plans identify which degrees and certificates require TSTC 1101 and which require TSTC 1102. These one-credit-hour, student-success courses will present students with the essential knowledge to accomplish their goals at TSTC. The First Year Seminar course is the most important class a student will take at the College and provides a strong foundation for a student's academic and professional career by focusing on student development, utilizing campus resources, and building lifelong learning skills for academic and workplace success.

Students, with less than 24 credit hours earned, must enroll in the First Year Seminar (TSTC 1101 or TSTC 1102) course required for their program. Only one successfully completed TSTC 1101 or TSTC 1102 is required.

Dual enrollment students are exempt from taking the First Year Seminar course. Students who intend to attend TSTC for one semester only may request a one-time exemption from First Year Seminar course from the Office of Student Learning.

Transfer students who have successfully completed more than 24 credit hours may be exempted from taking a required First Year Seminar course. All students are responsible for providing official transcripts to the Enrollment Center to receive the exemption. Transcripts should be received no later than one week prior to the start of the semester. The student is responsible for updating his/her schedule

after providing transcripts that show 24 or more hours of successfully completed credit or after an exemption has been approved.

Credentials

TSTC offers programs of study leading to Associate of Science degrees, Associate of Applied Science degrees and the Certificate of Completion. All programs are approved by the Texas Higher Education Coordinating Board.

- Associate of Science programs are designed specifically for students planning to pursue a bachelor's degree in the areas of biology, computer science, engineering, mathematics and physics. They may include the institution's approved academic core curriculum and prerequisites for a seamless transition into a baccalaureate program. Associate degree programs must incorporate the College's approved core curriculum unless an exemption exists. Exemptions, defined by the Texas Higher Education Coordinating Board, to offer specialized academic associate degrees are maintained by the Curriculum Department. Graduates of these programs will receive an Associate of Science degree.
- Associate of Applied Science degree programs are designed to train technicians who work with professionals. Because technicians must be able to understand the profession and translate ideas into actual processes, the technical programs combine theory and laboratory classes with laboratory and shop experience. All graduates of associate degree programs must show they are competent in Communication and the use of computers by satisfactorily completing at least one course in which communication and basic computer skills are covered. Graduates of these programs receive Associate of Applied Science degrees.
- Certificate programs are designed to produce the skilled workers needed by modern industry. Skill programs emphasize laboratory and shop experience, rather than theory. All graduates of certificate programs show they are competent in oral communication and the use of computers by satisfactorily completing at least one course in which oral communications and basic computer skills are covered. Graduates of these programs receive Certificates of Completion.

Institutional Awards

TSTC offers technical training in defined skill sets which can be grouped in various combinations to meet specific job requirements for business or industry. These pathways are designed to allow students and/or incumbent workers to enter, exit and re-enter TSTC training while they continue to work or pursue further training.

Credits earned in these pathways may be applied to a college credit Certificate of Completion and/or Associate of Applied Science degree.

Degree and Certificate Plans

A degree or certificate plan includes a set of courses that are required to earn a specific degree or certificate. Electives are approved by the student's faculty advisor and indicated in the plan. Course credit may be earned at TSTC, transferred from another college or university or awarded through examination.

Courses may be substituted if they are approved by the department designee or subject matter expert. No condition guarantees that a course substitution will be approved. Each request is decided on its own merit.

Transfer credit shall be processed by the Office of the Registrar Processing Center using the Texas Common Course Numbering System (TCCNS) Transfer guide for courses offered at state institutions. Transfer coursework must be assigned a grade of "D" or better. Grades lower than a "C" shall not be accepted for transfer toward major or major-related courses in the student's program. Credits earned at other colleges and universities must be approved for transfer credit by the subject matter expert in the student's major field of study. Credit for courses in related areas may also require approval from the subject matter expert of that program area.

A student is certified for graduation only when credit has been earned for all courses in the degree or certificate plan and any appropriate course substitution and/or transfer credit authorizations are on file. Although advisors are available to assist them, students are responsible for keeping track of their progress toward meeting program requirements. Contact the Enrollment Coach Program Enrollment Coach for assistance.

Change of Major

A student may change majors only between terms or prior to the 11th class day of a 15-week semester, the 5th class day of a 12-week semester or the 4th class day of a 6-week session. Students who wish to change programs should meet with an enrollment coach or program advisor. Students must meet the entry requirements if specified. Students receiving financial aid should meet with the Enrollment Center before changing their major.

To change majors, students must follow these procedures.

1. Complete the change of major form, including obtaining all required signatures. Students may be required to meet additional admission criteria for the new major.

2. Return the completed form to the enrollment or program coach for processing.

Additional Degrees and Certificates

Credit hours may be applied toward more than one degree and/or certificate, as long as those hours meet requirements of those credentials.

Repeat Courses

It is the policy of Texas State Technical College to allow students to repeat a course only when the initial grade earned was below a grade of "A."

When a student repeats a course in which the grade earned was below an "A" the first grade earned will not be calculated into the cumulative grade point average. The last grade issued (regardless of whether higher or lower than the first grade) will be calculated into the cumulative grade point average. See SOS ES 4.15 - Repeat Courses and GPA Calculation.

Graduation and Commencement

Graduation Requirements

Within five years of initial enrollment in credit courses at Texas State Technical College, a student may graduate with a degree or certificate according to the catalog requirements in effect at the time of first enrollment at Texas State Technical College provided the degree, certificate, the program and requisite courses are still being offered.

If a student fails to complete within five years all requirements of the catalog in effect at the time of initial enrollment, the student will be required to graduate under a catalog not older than five years.

Exception to this requirement may be approved in extenuating circumstances by the campus academic officer.

Graduation Procedures

The Registrar or designee will certify that the student has met graduation criteria and requirements.

Students are notified of their eligibility for graduation when they achieve the following requirements for the applicable degree or certificate.

1. All required course work is satisfactorily completed.
2. At least 25 percent of the total required credit hours for the program earned at TSTC.
3. The student's cumulative grade point average is 2.0 or higher.
4. Grading requirements:
   a. Course taught in traditional format: The student's grades in all major courses are C or better. Courses with a grade of "Pass" may be counted in satisfaction of degree requirements. This minimum grade requirement may vary for some TSTC health-related programs.
   b. Course taught in PBE format: The student's grades in all major courses are B or better.

   Note: Students who have transcripted courses from a traditional program and move into a PBE course will receive credit for their previous transcripted course, if applicable, as determined by the program administrator.
5. All transfer credits accepted by TSTC and applied to the degree or certificate have been credited according to approved procedures for evaluation and award of credit.
   Note: All transfer credits are evaluated by the Registrar Processing Center using the Texas Common Course Numbering System (TCCNS) Transfer Guide for courses offered at state institutions. Courses that are not listed in the TCNNS, that are from an out-of-state institution, or that are from a foreign institution shall be forwarded to the appropriate department/subject-matter experts for further review and approval. Students shall be responsible for providing the necessary documentation about the transfer course(s). In the case of a transfer credit dispute or appeal, The Senior Vice President of Student Learning (SVPSL) or designee who oversees the department in which the course is taught shall have final authority for awarding transfer credit. See SOS ES 3.12 Transfer and Substitution of Credit for additional information.
6. The student has no pending disciplinary issues as defined in the TSTC Catalog and Student Handbook.

Note: Settlement of all financial obligations to TSTC must be made prior to graduation. If any business is pending with TSTC by commencement, TSTC withholds the official TSTC transcript until clearance approval.

Commencement Ceremonies

Candidates for graduation are encouraged to participate in commencement ceremonies held at the end of each semester. Participation is voluntary; however, only those students who participate in the commencement ceremony receive diploma covers, as well as honor cords and medals if eligible. Students not planning to attend the commencement ceremony may pick up their diplomas at

the Enrollment Center once certification of degrees has been completed. Diplomas not picked up will be mailed to the graduate at the address in the College's administrative database.

Candidates for graduation participating in the commencement ceremony must wear only TSTC designated regalia (cap, gown, tassel) which may be purchased at the TSTC Campus Store.

Students requiring accommodations for commencement will need to make arrangements with Access and Learning Accommodations in a timely manner.

Graduation Honors

Students receiving associate degrees or certificates of completion who earn Cumulative GPAs of 4.0 receive TSTC Board of Regents' Honors.

Students receiving associate degrees or certificates of completion who earn Cumulative GPAs of 3.50 to 3.99 receive Honors.

Diploma Reprint Request

Students must complete the diploma reorder form and submit for processing to the Office of the Registrar at registrars@tstc.edu for processing.

Graduate Guarantee

If an associate degree or certificate of completion graduate, or marketable skills achievement award completer is judged by his/her employer to be lacking in technical job skills identified as exit competencies for the program under which the student graduated or completed, TSTC will provide the graduate with up to 12 tuition-free semester credit hours of additional skill training, in accordance with the following.

1. The graduate must have earned the degree, certificate or award in a technical or occupational program or pathway published in the TSTC catalog.
2. The graduate must have earned at least 75 percent of the total credits of the associate degree or certificate of completion at TSTC, and must have completed the degree or certificate of completion within five years of initial enrollment.
3. The graduate must be employed full-time in an area directly related to the program concentration, as certified by the Chief Academic Officer or designee.
4. The employment must have commenced within 12 months of graduation or completion.
5. The Graduate Guarantee process must be initiated in writing to the TSTC Office of the Chancellor and CEO, by either the graduate or the employer.
6. The employer must certify in writing that the employee is lacking entry-level skills identified by TSTC as program exit competencies and must specify the areas of deficiency within 90 days of the graduate's initial employment.
7. The employer, the graduate, career counselor and appropriate chairperson will develop a written educational plan for retraining.
8. Retraining will be limited to 12 semester credit hours related to the identified skill deficiency and to those classes regularly scheduled during the period covered by the retraining plan.
9. All retraining must be completed within one calendar year from the time the educational plan is agreed upon.
10. The graduate and/or employer will be responsible for the cost of books, insurance, uniforms, fees and/or other course-related expenses.
11. The guarantee does not imply that the graduate will pass any licensing or qualifying examination for a particular career.

A student's sole remedy against TSTC and its employees for skill deficiencies shall be limited to 12 semester credit hours of tuition-free education, as described above.

The TSTC Foundation Alumni Network

The TSTC Foundation Alumni Network serves and supports Texas State Technical College, its students and alumni. Through the Alumni Network, students and alumni can read updates about other alumni, connect with them, share success stories and more.

Being a part of the Alumni Network comes at no cost and gives alumni access to the following benefits:

- The TSTC Foundation Alumni Job Network.
- The hireTSTC job portal, including job alerts, interview tips and invitations to upcoming job fairs.
- Monthly e-newsletter.
- Invitations to special events.
- Volunteer opportunities.

More than 67,000 alumni are already part of The TSTC Foundation Alumni Network. Sign up today by visiting our website at tstc.edu/alumni, or contact us at tstc.alumni@tstc.edu or 254-867-3980.

Curriculum

Developmental Education Courses

TSTC provides courses and learning activities for students who need assistance with basic academic skills. Developmental education courses are not counted as credit toward graduation. However, they are used along with the credit courses for determining course load and satisfactory academic progress for financial aid.

General Education Courses

Under this accreditation, Associate of Applied Science (AAS) degree programs must contain a basic core of general education courses. This basic core must contain a minimum of 15 semester credit hours and include at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences and natural sciences/mathematics. Specific core course requirements are included within each associate degree plan.

Associate of Science (AS) degree programs must incorporate the College's approved core curriculum unless an exemption exists. Exemptions, defined by the Texas Higher Education Coordinating Board, to offer specialized academic associate degrees are maintained by the Curriculum Department.

General education is an integral component of a degree program through which students encounter the basic content and methodology of the principal areas of knowledge: humanities and fine arts, social and behavioral sciences, and math and natural sciences. Courses in each of these specific areas introduce a breadth of knowledge and reinforce cognitive skills and affective learning opportunities for students. Such general education courses do not focus on skills, techniques and procedures specific to a student's occupation or profession.

Purpose

The general education courses are basic to the purpose of TSTC and represent a commitment to offer breadth as well as depth to a student's technical education program of study. TSTC's inventory of general education courses offers a comprehensive general education program because:

1. Employers are interested in hiring technically trained graduates, who with an appropriate grounding in science (natural, behavioral and social), mathematics and technology, can communicate effectively, work well with others, make appropriate decisions, adapt to change, and in many cases, continue their education.
2. The general education courses provide foundational and thorough education that do not focus on specific skills, techniques, procedures, or vocations.
3. General education courses assist in developing the ability to think critically, use logical reasoning in analyzing and solving problems, and appreciate cultural diversity.
4. Many of our students need assistance in becoming prepared for college studies in the technical and the general education components of their studies.
5. The general education courses are required to meet accreditation standards of regional, state and occupational groups requiring a broad range of knowledge when obtaining a degree or certification, and they fulfill the requirements agreed upon in articulation agreements with other colleges and universities.

The general education departments strive toward delivering courses that impart common knowledge, intellectual concepts and attitudes every person should have for career and life roles in addition to providing some of the basic competencies needed by technical students. General education departments seek to provide students in:

- Degree programs with instruction in knowledge and skills designed to impart common knowledge, intellectual concepts and appropriate attitudes for work and life. These courses assist the student's participation in social, technological and cultural environments. These courses contain college-level content in areas of communication, social and behavioral sciences, humanities, mathematics and natural science. Their common course numbers are recognized by the Texas Higher Education Coordinating Board in the Lower Division Academic Course Guide Manual and meet all requirements for transfer to other accredited colleges and universities.
- Certificate programs with instruction in knowledge, skills and attitudes appropriate for and that support the technical programs of study. These college-level courses are in the areas of communications, human relations, mathematics, natural science, social and behavioral sciences, business and humanities. These related studies courses in the certificate programs have numbers from the Workforce Education Course Manual as recognized by the Texas Higher Education Coordinating Board and typically are transferable for courses in occupational programs of study at other colleges or as part of an articulation agreement with another college. Additional courses come from the Lower Division Academic Course Guide Manual and meet all requirements for transfer to other accredited colleges and universities.
- Developmental education provides courses that strengthen academic skills, teach positive study habits, develop basic skill competencies necessary for major program success and allow students to explore career options of the College's major programs. These courses

seek to make students better prepared to complete their studies in their major programs of study. Finally, these courses support skills that must be acquired for students to successfully meet the requirements of TSTC's Texas Success Initiative.

Humanities Electives

Credits for Humanities and Fine Arts Electives are based upon the definition of the Shared Vision Task Force of the National Council for Occupational Education and the Community College Humanities Association:

"Humanities in Associate Degree occupational programs are studies which expand the student's awareness of the human condition and appreciation of human needs, values and achievements. The Humanities assist in developing insights, capacities and well-reasoned convictions essential for a fulfilled public and private life, as well as a success in a career. They include studies of literature and all languages, history, philosophy and religion, and the history and appreciation of the fine arts. They do not include the development of basic communication skills in any human language."

Course	Course Title
Humanities/Fine Arts	
ARTS 1301	Art Appreciation
ENGL 2321	British Literature
ENGL 2326	American Literature
ENGL 2331	World Literature
ENGL 2341	Forms of Literature
HUMA 1301	Introduction to Humanities
HUMA 2323	World Cultures
MUSI 1306	Music Appreciation
PHIL 1304	Introduction to World Religions
PHIL 2306	Introduction to Ethics
Behavioral/Social Sciences:	
ECON 2301	Principles of Macroeconomics
ECON 2302	Principles of Microeconomics
GOVT 2305	Federal Government
GOVT 2306	Texas Government
HIST 1301	United States History I
HIST 1302	United States History II
PSYC 2301	General Psychology
PSYC 2314	Lifespan Growth & Development
SOCI 1301	Introductory Sociology
Math/Natural Sciences:	
BIOL 1306	Biology for Science Majors I
BIOL 1307	Biology for Science Majors II
BIOL 1308	Biology for Non-Science Majors I
BIOL 1309	Biology for Non-Science Majors II
BIOL 2301	Anatomy & Physiology I
BIOL 2302	Anatomy & Physiology II
CHEM 1305	Introductory Chemistry I
CHEM 1311	General Chemistry I
CHEM 1312	General Chemistry II
MATH 1314	College Algebra
MATH 1316	Plane Trigonometry
MATH 1332	Contemporary Mathematics
MATH 1342	Elementary Statistics
PHYS 1315	Physical Science I
PHYS 1317	Physical Science II
General Education Electives	
ENGL 1301	Composition I
ENGL 1302	Composition II
ENGL 2311	Technical & Business Writing
HIST 2321	World Civilizations I
SPCH 1311	Introduction to Speech Communication
SPCH 1315	Public Speaking
SPCH 1318	Interpersonal Communication
SPCH 1321	Business & Professional Communication
ARTS 1301	Art Appreciation
ENGL 2321	British Literature
ENGL 2326	American Literature
ENGL 2331	World Literature
ENGL 2341	Forms of Literature
HUMA 1301	Introduction to Humanities
HUMA 2323	World Cultures
MUSI 1306	Music Appreciation
PHIL 1304	Introduction to World Religions
PHIL 2306	Introduction to Ethics
ECON 2301	Principles of Macroeconomics
ECON 2302	Principles of Microeconomics
GOVT 2305	Federal Government
GOVT 2306	Texas Government
HIST 1301	United States History I
HIST 1302	United States History II
PSYC 2301	General Psychology
PSYC 2314	Lifespan Growth & Development
SOCI 1301	Introductory Sociology
BIOL 1306	Biology for Science Majors I
BIOL 1307	Biology for Science Majors II
BIOL 1308	Biology for Non-Science Majors I
BIOL 1309	Biology for Non-Science Majors II
BIOL 2301	Anatomy & Physiology I
BIOL 2302	Anatomy & Physiology II
CHEM 1305	Introductory Chemistry I

CHEM 1311	General Chemistry I
CHEM 1312	General Chemistry II
MATH 1314	College Algebra
MATH 1316	Plane Trigonometry
MATH 1332	Contemporary Mathematics
MATH 1342	Elementary Statistics
PHYS 1315	Physical Science I
PHYS 1317	Physical Science II

Note: Transfer courses not listed may be evaluated on an individual basis. Not all courses may be offered on all TSTC campus locations. Additional General Academic courses to be determined by program advisor and campus location.

More Information

Anyone have questions regarding transfer credit should contact the Enrollment Center and questions regarding special partnerships should contact the Strategic Relations Office.

Additional courses may be accepted on transfer from other colleges.

Questions on the transferability of outside courses to meet the Humanities/Fine Arts elective, the Natural Sciences/Mathematics or Behavioral/Social Science elective requirements should be addressed to the lead instructor of the Academic Core Certificate of Completion.

Academic Core Courses

The following is a list of General Education courses offered by TSTC General Education Academic Core departments used to satisfy the 42 hour semester hour Academic Core Certificate of Completion and the general education core courses for AS degrees.

The TSTC campus in Harlingen offers the Texas Core Curriculum, a core package of transferable academic courses defined by the Texas Higher Education Coordinating Board that will transfer to any college or university in the state of Texas. More information on course content and lecture and lab hours is included in the Course Descriptions section of this catalog.

Selection of courses within each category must be based upon the student's demonstrated abilities, desired major and intentions for graduation. Not all courses are offered every semester. Students must attain a "C" or better in all academic Core courses to be eligible for certificate of completion. Additional hours may be taken beyond the minimum shown. The categories and minimum hours for the basic core are as follows:

Course	Title
Communication (6 hours)	
ENGL 1301	Composition
ENGL 1302	Composition II
Mathematics (3 hours)	
MATH 1314	College Algebra
MATH 1316	Plane Trigonometry
MATH 1332	Contemporary Mathematics
Life and Physical Sciences (6 hours)	
BIOL 1306	Biology for Science Majors I (Lecture)
BIOL 1307	Biology for Science Majors II (Lecture)
BIOL 1308	Biology for Non-Science Majors I (Lecture)
BIOL 1309	Biology for Non-Science Majors II (Lecture)
BIOL 2301	Anatomy & Physiology I (Lecture)
BIOL 2302	Anatomy & Physiology II (Lecture)
CHEM 1311	General Chemistry I (Lecture)
CHEM 1312	General Chemistry II (Lecture)
PHYS 1301	College Physics I (Lecture)
PHYS 1302	College Physics II (Lecture)
PHYS 1315	Physical Science I (Lecture)
PHYS 1317	Physical Science II (Lecture)
Language, Philosophy & Culture (3 hours)	
ENGL 2321	British Literature
ENGL 2331	World Literature
ENGL 2326	American Literature
PHIL 1304	Introduction to World Religions
Creative Arts (3 hours)	
ARTS 1301	Art Appreciation
MUSI 1306	Music Appreciation
American History (6 hours)	
HIST 1301	U.S. History I (to 1877)
HIST 1302	U.S. History II (since 1877)
Government/Political Science (6 hours)	
GOVT 2305	Federal Government
GOVT 2306	Texas Government
Social/Behavioral Science (3 hours)	
ECON 2301	Principles of Macroeconomics
ECON 2302	Principles of Microeconomics
PSYC 2301	General Psychology
PSYC 2314	Life Span Growth & Development
SOCI 1301	Introductory Sociology

Component Area Option A (minimum of 3 hours)

BIOL 1106	Biology for Science Majors I (lab)
BIOL 1107	Biology for Science Majors II (lab)
BIOL 1108	Biology for Non-Science Majors I (lab)
BIOL 1109	Biology for Non-Science Majors II (lab)
BIOL 2101	Anatomy/Physiology I (lab)
BIOL 2102	Anatomy/Physiology II (lab)
CHEM 1111	General Chemistry I (lab)
CHEM 1112	General Chemistry II (lab)
ENGL 2321	British Literature
ENGL 2326	American Literature
ENGL 2331	World Literature
PHYS 1101	College Physics I (lab)
PHYS 1102	College Physics II (lab)
PHYS 1115	Physical Science I (lab)
PHYS 1117	Physical Science II (lab)
PSYC 2314	Life Span Growth & Development

Component Area Option B (3 hours)

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

Other Academic Transfer Courses

The Texas Higher Education Coordinating Board approves the following courses for academic credit. However, these courses are not part of the required basic general education core (15 hours) for AAS degrees nor part of the General Education Academic Core and will not satisfy the core requirements for graduation. Certain programs require these courses as part of their curricula, and the course may also be taken as an elective beyond requirements of the basic general education core for AAS degrees and the General Education Academic Core. The Texas Higher Education Coordinating Board does not permit that a Core course be substituted.

Course	Title
ACCT 2301	Principles of Accounting I - Financial
ACCT 2302	Principles of Accounting II - Managerial (ACCT 2301*)
ANTH 2346	General Anthropology
BCIS 1305	Business Computer Applications
BUSI 1301	Business Principles
BUSI 2301	Business Law
COSC 1301	Microcomputer Applications
ENGL 2307	Creative Writing
ENGR 1201	Introduction to Engineering
ENGR 1304	Engineering Graphics
ENGR 2301	Engineering Mechanics I - Statics
ENGR 2303	Engineering Mechanics I - Statics and Dynamics
ENGR 2304	Programming for Engineers
ENGR 2305	Circuit Analysis I
ENGR 2105	Circuit Analysis I Lab
ENGR 2402	Engineering Mechanics II - Dynamics
ENVR 1401	Environmental Science I
GEOG 1303	World Regional Geography
HIST 2321	World Civilizations
MATH 2305	Discrete Mathematics (MATH 2413*)
TECA 1354	Child Growth and Development

(*Course Prerequisites)

Prerequisites and Corequisites

Students must complete designated prerequisite courses before registering for certain courses and must take corequisite courses during the same term. Such requirements are indicated as part of the course descriptions. Students are responsible for taking courses in sequence and at the proper level. Failure to adhere to prerequisite and corequisite requirements may result in the students being withdrawn from the courses.

Credit Award for Assessments and Training

Credit awards for Texas State Technical College (TSTC) courses based on credit by examination or nontraditional training and experiences is available to students who plan to enroll at TSTC and to currently enrolled students. TSTC awards credit for various examinations published by the College Board, including the College Board Advanced Placement Program (AP) and the College-Level Examination Program Subject Exams (CLEP-S). TSTC also awards credit for training received while in the United States Armed Services, for credit earned through the International Baccalaureate Diploma Program and, for credit earned in high school dual enrollment courses. Students may also be eligible to receive credit awards for other types of training and experience subject to review and approval by the appropriate college official.

General Rules and Regulations

The total number of semester credit hours awarded for Credit Awards may vary depending upon the student's program of study; however, the total credit awarded (including transfer credits) cannot exceed 75 percent of the total credits required for the student's declared program of study. At least 25 percent of the total credits in a TSTC student's certificate or AAS degree plan must be earned through regular SCH instruction at a TSTC college or at another institution of higher education in partnership with TSTC.

While credit may be awarded by TSTC for external exams and training, this credit may not satisfy requirements for a specific program of study. Students should check with program advisors to determine if accepted Credit Awards will meet program requirements.

A grade of CR (credit) will be assigned for any course in which Credit Awards are received. This grade is not computed in the grade point average, and the credit does not count toward calculation of student load for a term.

The student is responsible for obtaining documentation of external exam scores and/or other training and submitting it to the Enrollment Center at a TSTC College. Scores for the College Examination Program (CLEP) and Advanced Placement (AP) examinations, as well as other Credit Award documentation, should be received prior to enrollment for use in course advisement and placement.

Students must complete the appropriate Credit Award Request form with appropriate documentation to initiate the Credit Award process. Payment of any fees associated with Credit Award program must be received before credit can be posted to the student's transcript.

CLEP Subject Area Exams

The College-Level Examination Program (CLEP) is a series of tests offered by the College Board. The tests cover a variety of subject areas including business, science and mathematics, history and social sciences, foreign languages, and composition and literature. CLEP exams are offered on most college and university campuses. The CLEP exam is currently offered at our Harlingen, Waco and Abilene locations. Eligible DANTES funded test takers attempting a CLEP test for the first time will have their exam fee funded by DANTES and the administration fee waived. Please contact the Testing Center for more information.

TSTC awards course credit for the following CLEP Subject Exams providing the minimum score has been obtained on the specific test. TSTC does not award credit for the CLEP General Exams. CLEP Scores are valid for 10 years from the test date. Subjects approved by TSTC may be found on the Admissions website.

Advanced Placement

Advanced Placement (AP) exams are offered by the College Board to students who complete AP courses while enrolled in high school. The exams cover a variety of subject areas including business, science and mathematics, history and social sciences, foreign languages, and composition and literature. Approved exams may be found on the TSTC Admissions website.

Credit for Military Training

Students who received training while in the United States Armed Services may receive credit for that training, provided appropriate documentation is provided and the training is equivalent to a course or courses offered by TSTC. Credit awarded for military training is based on the recommendations from the American Council on Education (ACE) in its Guide to the Evaluation of Educational Experiences in the Armed Services and must be approved by the appropriate TSTC department chair for the specific subject area.

The Military Registries provide quality assurance and policy guidance to the U.S. Army, Navy and Marine Corps in support of the Army/ACE Registry Transcript Service (AARTS) and the Sailor/Marine/ACE Registry Transcript (SMART). More than 2,300 colleges and universities recognize these ACE-endorsed transcripts as official documentation of military experiences and accurate records of applicable ACE credit recommendations.

Students who wish to receive credit for military training should obtain a transcript from the Defense Activity for Non-Traditional Education Support (DANTES). This agency maintains the educational records of the service members who have completed DANTES Subject Standardized Tests (DSSTs), CLEP examinations, USAFI (United States Armed forces Institute) and a high school equivalency exam.

Before July 1, 1974, the results of courses and tests taken under the auspices of USAFI (United States Armed Forces Institute, disestablished 1974) are also available from the DANTES Program:

DANTES Program
The Chauncey Group International
P. O. Box 6605
Princeton, NJ 08541-6605

International Baccalaureate Diploma Program (IBD)

Students who have received an International Baccalaureate Diploma (IB) may receive TSTC course credit for the following exams with scores of four or higher on either standard level (SL) or higher level (HL) examinations. Students who have taken IB exams but do not have an IB diploma may receive credit for scores of five or higher on higher level (HL) examinations only.

IBD Exam Name	Minimum Score with IB Diploma	Minimum Score without IB Diploma	Credits	TSTC Course(s)
Biology (HL)	4	5	8	BIOL 1406, 1407
Biology (SL)	4	n/a	8	BIOL 1406, 1407
Chemistry (HL)	4	5	8	CHEM 1411, 1412
Chemistry (SL)	4	n/a	8	CHEM 1411, 1412
Economics (HL)	4	5	6	ECON 2301, 2302
Economics (SL)	4	n/a	6	ECON 2301, 2302
English Language A1 (HL)	4	5	6	ENGL 2322, 2323
English Language A1 (SL)	4	n/a	6	ENGL 2322, 2323
Mathematics (HL)	4	n/a	6	MATH 1314, 1316
Math Methods (SL)	4	n/a	3	MATH 1314
Math Studies (SL)	4	n/a	3	MATH 1324 or 1325
Philosophy (HL)	4	5	3	PHIL 1301
Philosophy (SL)	4	n/a	3	PHIL 1301
Physics (HL)	4	5	4	PHYS 1401
Physics (SL)	4	n/a	4	PHYS 1401
Psychology (HL)	4	5	3	PSYC 2301
Psychology (SL)	4	n/a	3	PSYC 2301

Credit Award for Continuing Education and Experiential Learning

Students who have successfully completed continuing education (CE) courses offered by a TSTC college are eligible to apply for semester credit hour technical course credit. CE coursework must be demonstrated to be substantially the same as the equivalent semester credit coursework. Students taking a CE training that leads to an industry recognized credential, licensure, or certification can utilize the credential to request college credit. Students must sign and submit a Continuing Education Hours Course Equivalency Evaluation form to the instructional administrator of the appropriate technical program in which the course(s) are managed.

Experiential learning allows students to receive college credit for equivalent educational experiences acquired through earlier schooling situations, work/on-the-job training or life experiences. Upon approval of the appropriate department chair and/or department chair, a student may develop a petition for a course or courses offered by TSTC to gain college-level credit. Petitions are reviewed by the appropriate department chair and/or designated subject matter expert and submitted to the Senior Vice President of Student Learning for approval.

Students with applicable skills and knowledge may also receive credit for technical courses in which proficiency is determined by examination. These challenge exams are designed and written by qualified faculty and may be administered in the technical department or testing center.

More specific information on credit award for continuing education units and experiential learning may be obtained from Quality Management. Testing center and/or evaluation fees may apply.

Audited Courses

Students may audit courses with permission from the course instructors. Students auditing courses must adhere to the same class requirements as those students taking the courses for credit. Audited courses are not considered when determining a credit hour load, and a grade of "AUD" is shown on the students' grade reports. Students may take courses for credit after auditing them but may not receive credit by examination or use audited courses as course substitutions in degree or certificate plans. Students who audit courses will be charged state and designated tuition and an audit fee specified in the Tuition and Fees section of this catalog. Contact the Enrollment Center for more information.

Cooperative Education

Most certificate and degree programs offer students opportunities to participate in cooperative training with industry for at least one semester. Students in cooperative

experiences earn up to 12 credit hours working off-campus at jobs related to their fields of study. This phase of training is a cooperative effort between the student, industry and TSTC to provide valuable work experience. Cooperative education is competitive, enabling some qualified students to earn income to help support their education. Students who are interested in participating in cooperative experiences should discuss the opportunities with their department chairpersons.

Performance-Based Education (PBE)

Some programs of study offer performance-based education (PBE)), the name of TSTC's course-based competency based-education (CBE) initiative. In these programs, students may complete course requirements without attending regularly scheduled lectures or laboratory sessions. Students enroll in an agreed-upon number of contact hours and are awarded credit when course objectives are met. This allows students to advance through program requirements at a comfortable speed, which may be slower or faster than the more traditional approach.

Performance-Based Education (PBE) programs are pending approval by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

Enrollment

Registration

Returning students and new students who have completed admission process should contact their local TSTC campus for specific registration information. Students must register for classes prior to the beginning of the semester of attendance. Students may register for classes during the scheduled registration period. Students must clear all holds or restrictions prior to registration.

Program enrollment coaches will assist students in the Business Management Technology, Computer Networking & Systems Administration, Cybersecurity, Digital Media Design, Heating, Ventilation & Air Conditioning (HVAC) Technology and Web Design & Development PBE programs with registration and schedule changes.

Note: Attending class or doing course work for a course in which they are not properly registered (which includes paying fees) is prohibited and grounds for dismissal from the College.

Online Learning

TSTC offers instruction through a variety of modalities. Online classes offer students the opportunity to complete college courses using personal computers and internet connections. Each TSTC program that offers online learning courses has requirements specific to that program.

Online courses do have deadlines for completion of course requirements. Depending on the nature of instructional modality, students may have the opportunity to work through some course requirements in a self-guided manner. Students who take online learning courses complete course requirements and communicate with instructors through the College's Learning Management System (LMS). A proctored exam is taken on campus or at an approved proctored testing center and monitored by a Proctor. Please follow testing instructions indicated on the course syllabus and for proctored testing requirements and arrangements. Virtual tutoring for some online programs is available.

Prior to beginning a fully online course, students must complete the Student Online Learning Orientation (SOLO) course to demonstrate ability to succeed in TSTC's online learning environment. Contact the Office of Online Learning for information on the SOLO course. Failure to complete the SOLO course may result in the student being withdrawn from the online course(s).

In most cases, tuition for online learning courses is the same as on campus courses. The Tuition and Fees section of this catalog provides more details. Students planning to take only online learning courses should notify the TSTC Enrollment Center so that the appropriate information and advising can be arranged.

Day, Evening and Weekend Courses

The majority of college credit courses are taught on weekdays during the day, with selected courses offered during the evenings and/or on weekends. Workforce Training and Continuing Education courses are scheduled throughout these time periods. Contact the Workforce Training Office for details.

Dual Enrollment Courses

The TSTC Dual Enrollment program provides an opportunity for high school students to earn college and high school credit simultaneously while still in high school. High School Partners must have an official Partnership with TSTC by way of a Memorandum of Understanding and meet applicable eligibility requirements for students to enroll in courses. Active Dual Enrollment students are to abide by the rules and regulations set forth in the TSTC Catalog and Student Handbook. Contact the Dual Enrollment Office for more information.

Schedule Changes

The published academic calendar outlines the dates during which schedule changes may occur. Students may add, drop courses, or change sections before classes begin by contacting their enrollment coach or program enrollment coach. After classes begin, all students may change their schedules by obtaining course schedule change forms available from the Enrollment Center, instructors and/or lead instructors. The completed forms must be submitted to the Enrollment Center by the deadline published in the TSTC college academic calendar. Changes are effective only when this process has been completed.

Drops and Withdrawals

Students may drop courses or withdraw from the College by completing a course schedule change form, obtaining the appropriate approval signatures, and submitting the form to the Enrollment Center. The effective date is the date the course schedule change form is received by the Enrollment Center. Deadlines for course drops and withdrawals from the College are published in the TSTC college academic calendar.

See "Refunds for Changes in Enrollment" in the Refunds section for more information.

Courses that are dropped prior to the official census dates do not appear on the student's transcript. After the official census dates, students who drop courses or withdraw from the institution receive marks of "W" (Withdrawal), provided the forms are received on or before the published deadline. Students who withdraw from the institution may be asked to meet with a college representative.

Under section 51.907 of the Texas Education Code, "an institution of higher education may not permit a student to drop more than six courses, including any course a transfer student has dropped at another institution of higher education." This statute was enacted by the state of Texas in spring 2007 and applies to students who enroll in a public institution of higher education as first-time freshmen in Fall 2007 or later. Any course that a student drops is counted toward the six-course limit if "the student was able to drop the course without receiving a grade or incurring an academic penalty; the student's transcript indicates or will indicate that the student was enrolled in the course; and the student is not dropping the course in order to withdraw from the institution." Some exemptions for good cause could allow a student to drop a course without having it counted toward this limit, but it is the responsibility of the student to establish that good cause.

Students who have completed at least 75 percent of the term and who are called to active military service may request an excused absence rather than withdrawal from their courses. Students who request leave based on military service will be given grades of "IM" in all courses and will have two years from the end of the term to complete course work. Grades of "IM" awarded to students called to military service will be changed to "W" grades if the required course work is not completed by the end of the two-year period.

Students who withdraw from the College must ensure that all library books and laboratory equipment are returned and all financial obligations are settled before they leave.

Administrative withdrawals may be utilized by Student Learning or Administrative Offices as deemed necessary to withdraw a student. Students who are administratively withdrawn are subject to TSTC's Refund and Grading Policy.

Student Participation

Students are responsible for their own class attendance and participation. Faculty members may establish requirements for student participation in specific learning activities both in and out of the classroom and may consider these requirements when determining final grades.

Faculty member or college administrator may submit a request to withdraw a student from one or more courses who is not meeting the required participation due to the development of unforeseen events beyond the student's control. These events may include serious illness, death in the immediate family, changes in condition of employment or military deployment. Administrative withdrawals are subject to the TSTC's Refund and Grading Policy.

Student Absence and Religious Holidays

Under Texas Education Code 51.911, a student who is absent from class for the observance of a religious holiday is allowed to take an examination or complete an assignment scheduled for that day within a reasonable time period, as established by the faculty member. The student must give written notice by submitting a completed absence request form to the instructor within the first 10 days of the term. Contact the Enrollment Center for more information.

Transfer of Credit

The transfer of course credit from TSTC to other Texas colleges and universities is facilitated by the Texas Higher Education Coordinating Board (THECB) Academic Course Guide Manual and Workforce Education Course Manual. In general, students may submit an official TSTC transcript to another college or university for consideration of transfer credits. Acceptance of credits is at the discretion of the receiving institution. Contact the appropriate department chair for more information.

Resolution of Transfer Disputes for Lower Division Courses

The following procedures specified in Texas Higher Education Coordinating Board Rules (Chapter 4, Subchapter B, Section 4.27) shall be followed by institutions of higher education in the resolution of credit transfer disputes involving lower-division courses:

1. If an institution of higher education does not accept course credit earned by a student at another institution of higher education, the receiving institution shall give written notice to the student and to the sending institution that transfer of the course credit is denied, and shall include in that notice the reasons for denying the credit.
   Attached to the written notice shall be the procedures for resolution of transfer disputes for lower-division courses as outlined in this section, accompanied by clear instructions outlining the procedure for appealing the decision to the Commissioner.
2. A student who receives notice as specified in paragraph 1 of this subsection may dispute the denial of credit by contacting a designated official at either the sending or the receiving institution.
3. The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with Board rules and guidelines.
4. 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 sending institution may notify the Commissioner in writing of the request for transfer dispute resolution, and the institution that denies the course credit for transfer shall notify the Commissioner in writing of its denial and the reasons for the denial.

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

Each institution of higher education shall publish in its course catalogs the procedures specified in all subsections of Section 4.27 in the Texas Higher Education Coordinating Board rules.

The Board shall collect data on the types of transfer disputes that are reported and the disposition of each case that is considered by the Commissioner or the Commissioner's designee.

If a receiving institution has cause to believe that a course being presented by a student for transfer from another school is not of an acceptable level of quality, it should first contact the sending institution and attempt to resolve the problem. In the event that the two institutions are unable to come to a satisfactory resolution, the receiving institution may notify the Commissioner, who may investigate the course. If its quality is found to be unacceptable, the Board may discontinue funding for the course.

Academic Integrity

TSTC expects all students to engage in scholastic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity. Any student found guilty of academic dishonesty is subject to disciplinary action. Academic dishonesty includes, but is not limited to, cheating on academic work, plagiarism and collusion.

- **Cheating**: Activity that includes, but is not limited to:
  - Copying from another student's assignment, test, or other academic work.
  - Possessing material, such as class notes or textbooks, during a test that is not authorized by the instructor of record.
  - Collaborating, without authority, or seeking aid from another student during an examination or assignment, or in preparing academic work.
  - Using, buying, selling, stealing, transporting, or soliciting, in whole or in part, the contents of an unadministered test, test key, homework solution, or computer program.
  - Substituting for another student or permitting another student to substitute for oneself to take a test or prepare other academic work.
  - Paying, offering money or other valuables to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program, or to obtain information about an unadministered test, test key, homework solution, or computer program.
  - Falsifying laboratory reports and/or other academic work offered for credit.

  - Taking, keeping, misplacing, or damaging property of the College, or of another individual student, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct.
  - Willfully failing to comply with instructions given by a person administering a test.
  - Discussing, without express permission from the instructor of record, the contents of an examination with another student who will take the examination.
  - Divulging the contents of an examination for the purpose of preserving questions for use by another when the instructor has designated that the examination is not to be removed from the examination room or not to be returned to the student.
  - Misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining academic or financial benefit or for the purpose of injuring another student academically or financially.
- **Plagiarism** means claiming another's work as one's own without acknowledging its origin and doing so for credit.
- **Collusion** means unauthorized collaboration with another person in preparing a written work offered for credit.

For more information and procedures regarding a violation of Academic Dishonesty, see the Code of Student Conduct, Section J. Violations of Academic Integrity.

Workforce Training & Continuing Education

TSTC offers a range of workforce training and continuing education courses (CE) and programs. Credit in these courses and programs is awarded as "Continuing Education Units" (CEUs), or Clock Hours, upon successful completion of course and program objectives. Courses may be offered to the general public or in a customized format for businesses and industries to meet specific workplace needs. Typical curriculum offerings include:

- Training and retraining programs that respond to requests or needs of business or other institutions and agencies
- Specialized customized training courses, workshops, seminars and clinics.
- Training for industrial start-up or expansion programs.
- Workforce training to train for new careers and to provide skill updates, professional development, personal improvement and recreation.

Admission and Registration

The majority of CE courses and programs have no admission requirements; however, all participants are required to complete a registration form with basic demographic information. Some specialized programs may require demonstrated skills, competencies and some program requirements prior to enrollment.

Tuition and Fees

CE courses vary in price depending on the length of the course, special equipment or labs used in training and other factors. Customized CE training courses may be billed directly to the sponsoring business or industry.

Unless the course or student is sponsored by a business or agency, payment of all tuition and fees is required three business days prior to the first class meeting.

Class Records and Certificates for CEU Programs

Students completing CE courses receive one CEU for every 10 hours of participation in a Workforce Training & Continuing Education course or program.

Grades of Satisfactory "S" or Unsatisfactory "U" are typically awarded in CE classes. Other types of grades may be awarded depending on the requirements of the course sponsor. Students who successfully complete CE courses may request a certificate certifying the number of CEUs awarded.

CEUs earned in classes taught by TSTC may be converted to semester hour (college) credit that is applicable to a certificate of completion or associate degree. Refer to the Credit Award for Assessments and Training section of this catalog for more information.

Class Records and Certificates for Clock Hour programs

Students completing CE courses receive one hour for every hour of participation in a Workforce Training & Continuing Education course or program.

The following is the grading scale used for clock hour programs:

Grading Scale:

90 – 100	A
80 – 89	B
75 – 79	C
70 – 74	D
0 - 69	F

Hours earned in classes taught by TSTC may be converted to semester hour (college) credit that is applicable to a certificate of completion or associate degree. Refer to the Credit Award for Assessments and Training section of this catalog for more information.

SAP Policy
Students must complete each course with at least a C or better to successfully complete the program. Students who do not have acceptable classroom attendance or fail to meet learning objectives with a potential to not meet the grade requirement will be removed from the program.

SAP Standing
Good Standing = C or better.
Probation = less than C.
Suspension = 3rd attempt of same course not meeting C or better.

Refund Policy for CE Courses
A. Students who voluntarily terminate their enrollment prior to the first day of class will receive 100% refund.
B. Students who voluntarily terminate their enrollment after the first day of class, but BEFORE the third day of class will receive 70% refund and no credit will be issued for course.
C. Students who voluntarily terminate their enrollment AFTER the third day of class will receive 0% refund and no credit will be issued for course.
D. Students that are forcefully terminated due to attendance and/or other authorized by administration will not receive refund or credit for the course.

CE Attendance Policy
CE students must typically hold a minimum of 90% attendance per course in order to maintain satisfactory progress unless a program's external governing agency requires differently. Such modification will be listed in the course syllabus.

Customized Training for Business and Industry
TSTC has a representative to respond to requests from businesses and other institutions or agencies to develop and offer specialized training for employees. Training may be provided at the College or at the sponsor's site of choice. For more information on specialized business and industry training contact the Workforce Training & Continuing Education Office.

Pre-College Programs

Pre-College Programs offers students the educational support needed to make the successful transition into college. Pre-College Programs offers Upward Bound, High School Equivalency Program and a variety of summer programs. All students who participate in Pre-College Programs are expected to adhere to the rules and regulations set forth in this Catalog/Handbook. Specific programs may have additional policies and rules that participants must also abide by.

Student Services

Student Housing

The College considers housing an added service for its students.

Occupancy in student apartments is assigned on a first-come, first-served basis.

The facilities are conveniently located at the College within walking distance of classroom buildings, laboratories and recreation facilities.

Housing Reservations
Because facilities are limited, the prospective student should complete a campus housing application as soon as possible, at least one semester in advance of the expected enrollment date. The application must be completed and returned with deposit, the Release of Background Information Form and the nonrefundable application fee. The deposit can be made by cash, credit card, check or money order payable to Texas State Technical College.

The deposit must be paid before the student is placed on the housing assignment list. If the student decides not to enroll or live in campus housing, the deposit will be refunded. The deposit will be retained until the student properly clears/vacates housing.

All rates are subject to change without notice due to economic conditions beyond the control of the College.

Housing Assignments
Returning students have priority in housing assignments. However, they must reserve their own residence for future occupancy according to the policy of their assigned facility.

Confirmation of housing reservations for available spaces will be made in writing to each applicant. When capacity is reached, additional applicants will be notified in writing that spaces are not available.

The student may request a certain space and/or roommate, and all possible consideration will be given to each request. The college reserves the right to assign students to specific spaces.

Students must remain in the facilities assigned to them unless permission for change is obtained from Housing. Moving without permission may result in eviction from campus housing. Housing reserves the right to move students to another space in order to conserve energy, for safety reasons, to conduct repairs or remodel and for other reasons that are in the best interest of the College.

Missing Housing Resident Notification

If a member of the college community has reason to believe that a student who resides in on-campus housing is missing, he/she should immediately notify the TSTC police department or security department. TSTC police will generate a missing person report and initiate an investigation.

Should TSTC Police determine that the student has been missing for more than 24 hours, they will notify the student's emergency contact or a confidentially identified individual.

In addition to registering an emergency contact, students in on-campus housing have the option to identify, confidentially, an individual to be contacted by TSTC in the event the student is determined to be missing for more than 24 hours.

If a student is less than 18 years old and is not an emancipated individual, federal law requires that TSTC notify a parent or guardian within 24 hours of when a student is confirmed missing.

Housing Regulations

Housing regulations are provided to each tenant in their contract and in Housing's Student Housing Handbook. Tenant may move into their assigned facilities in accordance with said facilities regulations." Move-in policy varies according to facility as well as campus. The tenant will terminate the lease and must vacate the residence if he/she ceases to be a TSTC student.

When the student properly vacates his or her assigned residence, the unused portion of advance rent will be refunded following inspection by Housing staff and return of all room keys. However, no refunds will be made during the last 10 school days of the semester.

A portion of the housing deposit will be withheld to defray costs of apartment repair or replacement of lost items where tenant liability is obvious. Remaining portions of the housing deposit will be withheld to defray the cost of any rent or fees due.

All rental rates are based on the TSTC approved fee schedule.

Housing Accommodations for Students with Disabilities

Students with disabilities that require accommodations for TSTC housing must contact Access and Learning Accommodations in a timely manner for further guidance on the accommodations process. Students with disabilities are encouraged to self-disclose when initiating the housing application process. Please see the Disabilities section to find contact information for these services.

Disabilities

Access and Learning Accommodations

The Texas State Technical College (TSTC) Access and Learning Accommodations (ALA) office serves as a resource for students who may experience barriers due to a disability (long-term or short-term).

Students seeking accommodations or services should make contact with the ALA office in a timely manner to self-report and begin the interactive process with an ALA staff person. Students may also be asked to provide supporting documentation from an individual qualified to diagnose the disclosed disability.

ALA will then collaborate with college personnel to develop appropriate accommodations that ensure equal access to all programs, activities, and services at TSTC.

ALA also coordinates with community assistance programs and serves as the liaison for Texas Workforce Solutions.

To make contact with the ALA office, please email adarequest@tstc.edu or a representative from your campus.

The goal of the Americans with Disabilities Act of 1990 (ADA) and the Amendments Act of 2008 (ADAAA) is to guarantee that individuals with disabilities are given equality of opportunity, full participation, independent

living, and economic self-sufficiency. In post-secondary education, individuals with disabilities are provided reasonable and appropriate accommodations to ensure equality in obtaining an education. Those accommodations are based on the need of the individual. Such reasonable accommodations do not include: personal services, lack of preparation, or lack of time management skills.

Service and Emotional Support Animals on Campus Grounds

Texas State Technical College (TSTC) allows individuals to bring animals on College property in accordance with federal laws and in other situations subject to the rules outlined below. At the same time, TSTC recognizes the health and safety risks potentially created by unrestrained animals on campus.

Definitions

Emotional Support Animal: An animal that is necessary to afford a person with a disability an equal opportunity to use and enjoy a dwelling when there is an identifiable relationship or nexus between the person's disability and the assistance the animal provides.

Service Animal: A dog individually trained to do work or perform tasks for a person with a disability. Examples of such work or tasks include guiding people who are blind, alerting people who are deaf, pulling a wheelchair, and alerting/protecting a person who is having a seizure. The provision of emotional support, well-being, comfort, or companionship does not constitute work or tasks for the purposes of defining a service animal.

A dog undergoing training by an approved trainer who is an agent of an organization generally recognized by agencies involved in the rehabilitation of persons who are disabled as reputable and competent to provide training for assistance animals, and/or their handlers.

Procedures

Animals brought on campus must be under the complete control of the owner at all times and present no hazard to people or property. The wearing of a muzzle by a dog shall not be regarded as control by its owner. Dogs and cats brought to campus must have a valid license as evidence of current rabies vaccinations and fulfill all local requirements applicable to animals or they may be subject to removal from campus. In all cases, the owner of the animal is responsible for the animal's behavior.

In general, TSTC will not ask about the nature or extent of a person's disability but may make two inquiries to determine whether an animal qualifies as a service animal. TSTC may ask:

- If the animal is required because of a disability and;
- What work or task the animal has been trained to perform.

Animals on campus grounds must be secured to a leash, cord, chain or similar direct physical control of a maximum length of six (6) feet, the other end of which is restrained by a person. If this constraint interferes with a service animal's work or if the individual's disability prevents using these devices the individual must maintain control of the animal through voice, signal, or other effective controls. The physical constraint of the animal does not apply to service or support animals kept within an individual's College housing assignment.

Animals must not be tethered to a stationary fixture or tree left unattended. TSTC may take reasonable efforts to remove an animal confined in a vehicle when there appears to be imminent danger to the animal due to temperature conditions or inadequate ventilation. TSTC is not liable for any associated repair/damage costs to the vehicle for this action and the animal's owner assumes full responsibility.

TSTC retains the right to take action to remove any animal from College premises if the safety of others, destruction of property, or disturbance warrants such removal. The removal of any animal and any necessary cleaning, repairs, and/or pest control will be done at the expense of the owner. The owner may also be subject to disciplinary action and this action may also extend to cases involving service and support animals. TSTC may not permit service animals when the animal poses a substantial and direct threat to health or safety or when the presence of the animal constitutes a fundamental alteration to the nature of the program or service. TSTC will make those determinations on a case-by-case basis.

Some people may have allergic reactions to animals that are substantial enough to qualify as disabilities.

TSTC will consider the needs of both persons in meeting its obligations to reasonably accommodate all disabilities and to resolve the problem as efficiently and expeditiously as possible. Students requesting allergy accommodations should contact Access and Learning Accommodations office.

Service Animals

The College permits service animals into campus buildings where other animals would typically not be permitted. This practice follows Titles II and III of the American with Disabilities Act Amendment Act (ADAAA).

The service animal must have been trained as a service animal in the work or tasks directly related to the person's disability. Individuals are permitted to bring his or her

service animal in all areas of the campus including any place of public accommodation. Individuals living in College housing will be permitted to have no more than one service or support animal. A student must seek registration for a service animal to reside in College housing space. Information and procedures to gain approval may be found at the Housing office for your campus.

Service animals in training on campus are allowed if the individual is an approved trainer who is an agent of an organization recognized as reputable and competent to provide such training and the individual submits proof to the Access and Learning Accommodations Office that he or she is the approved trainer as required in Texas Human Resources Code Dec. 121.003. Individuals participating in an internship off campus must refer to the entity's ADA designee for any inquiries regarding the requirements for service animals in training to enter their facility.

Emotional Support Animals
In accordance to the Fair Housing Act of 1988 and the U.S. Department of Housing and Urban Development, the College permits an individual with a disability to keep an emotional support animal within his or her College housing and on College grounds. The emotional support animal is not allowed to accompany the student into other public buildings on campus, including the dining area.

To be considered on a case-by-case basis by the TSTC Access and Learning Accommodations Office, all animals must comply with the city code of ordinances of the campus where the student resides.

Animals defined as "dangerous wild animals" in the Texas Health and Safety Code §822.101 (big cats, apes, bears, hybrids of these animals), primates, high-rabies-risk animals (bats, fox, raccoon, coyote), venomous animals, and domestic animals with unknown health history are not allowed.

The Code says a "dangerous wild animal" means:
A. A lion;
B. A tiger;
C. An ocelot;
D. A cougar;
E. A leopard;
F. A cheetah;
G. A jaguar;
H. A bobcat;
I. A lynx;
J. A serval;
K. A caracal;
L. A hyena;
M. A bear;
N. A coyote;
O. A jackal;
P. A baboon;
Q. A chimpanzee;
R. An orangutan;
S. A gorilla; or
T. Any hybrid of an animal listed in this subdivision.

In addition to above mentioned, the college reserves the right to remove an emotional support animal if:
- it poses a direct threat to the safety of others or causes significant property damage,
- its presence results in an undue burden or fundamental alteration of a college's program,
- it creates an unmanageable disturbance or interference with the college community and/or
- Student does not comply with the conditions set forth by the Access and Learning Accommodations office and the Student Housing Office.

Criteria for emotional support animals in Housing
Typically, an emotional support animal is prescribed to an individual with a disability by a health care or mental health professional and is an integral part of a person's treatment process. Individuals living in College housing will be permitted to have no more than one service or support animal. The Access and Learning Accommodations office manages requests related to a support animal within the student's College housing assignment. Requests made by faculty or staff residing in housing should be directed to the Housing Department and Human Resources office.

Animal Etiquette
To the extent possible, the handler should ensure that the animal does not: sniff people, restaurant tables or the personal belongings of others. Also, the animal should not display any behaviors or noises that are disruptive to others, unless part of the service being provided the handler. Furthermore, it is the handler's responsibility that the animal does not block an aisle or passageway for fire egress. Violation of this on behalf of an individual, may result in disciplinary action.

Public Etiquette Toward Service or Emotional Support Animals
It is OK to ask someone if she/he would like assistance if there seems to be confusion. However, faculty, staff, students, visitors and members of the general public should avoid the following: petting a service animal, as it may distract them from the task at hand; feeding the service animal; deliberately startling a service animal; and separating or attempting to separate a handler from his/her service animal. Individuals found in violation of this may be subject to disciplinary action.

Waste Cleanup Rule

Cleaning up after the animal is the sole responsibility of the handler. In the event that the handler is not physically able to clean up after the animal, it is then the responsibility of the handler to make arrangements to have someone available who is capable of cleaning up after the animal. The person cleaning up after the animal should abide by the following guidelines: Always carry equipment sufficient to clean up the animal's feces whenever the animal is on campus. Properly dispose of waste and/or litter in appropriate containers. TSTC may impose a financial responsibility on the Handler in the event TSTC staff is needed to cleanup.

Exemptions

Animals involved in authorized research , K-9 animal (police dog), animals being temporarily held by Environmental Health and Safety, fish contained in aquariums, or animals used for performance on premises or involved in College sponsored activity.

Appeal Process

An individual may appeal the decision to the College ADA Coordinator which can be found in Statewide Operating Standard ES 3.26.

Grievance Procedure for ADA-Related Complaints

Primary responsibility for ensuring compliance with the ADAAA rests with the College's ADA/504 Coordinator.

The release of and access to all student-related educational records will be in compliance with the Family Educational Rights and Privacy Act (FERPA).

TSTC students who believe that they have been denied equal access in the form of appropriate accommodations, modifications, auxiliary aids, effective communication, or experienced discriminatory harassment as described in Section 504 of the Rehabilitation Act of 1973 or The Americans with Disabilities Act of 1990 have a right to file a grievance. The TSTC procedure for the filing of student-related grievances alleging violations of the ADAAA and Section 504 is as follows:

1. The student shall submit a written complaint to the Office of Access and Learning Accommodations or its designee as soon as the complainant becomes aware of the alleged violation, but no later than 10 working days after the alleged action occurred. The time for submitting a written complaint can be waived for good cause as determined by the Office of Access and Learning Accommodations or its designee. The written complaint must include the name and address of the person filing the complaint, a brief description of the alleged violation, and any documents supporting the complaint. The Office of Access and Learning Accommodations or its designee shall assist the student in the interactive process in an effort to clarify and resolve the issue. At times, the ALA Office or its designee may consult with the ADA Coordinator, staff, and/or other pertinent parties to assist in the resolution process.
2. The ALA Office or its designee shall review the complaint and provide the student a response within 10 working days following receipt of the complaint. An extension of time may be made, not to exceed 15 working days, if the student is notified by the ALA Office or its designee.
3. If the student is not satisfied with the decision of the ALA Office or its designee, a written complaint may be submitted to the ADA Coordinator within 10 working days of the decision provided in step 2. The time for submitting a written complaint may be waived for good cause as determined by TSTC's ADA Coordinator. The written complaint must include the name and address of the person filing the complaint and a description of the reason for the complaint. Upon receipt, TSTC's ADA Coordinator shall review the complaint within 10 working days. An extension of time may be made, not to exceed 15 working days, if the student is notified by the ADA Coordinator. When necessary, the ADA Coordinator shall consult with the ALA Office and/or the ADA Compliance Committee to assist in the resolution.

The ADA Coordinator's decision shall be final at the College level.

If a complaint is not resolved at the College level, the student may choose to file a complaint with the Federal Office of Civil Rights. The Federal Office of Civil Rights will receive complaints and investigate as deemed appropriate.

Note: Accommodations can be requested at any time during the Student Appeals Process by contacting the Office of Access and Learning Accommodations.

Access and Learning Accommodations Contacts

Abilene, Breckenridge, Brownwood and Sweetwater
300 Homer K. Taylor Dr.
Sweetwater, Texas 79556
325-235-7311

East Williamson County
East Williamson County Higher Education Center
Hutto, Texas
512-759-5907

Fort Bend County
Brazos Center
26706 SW Freeway
Rosenberg, TX
346-239-3392

Harlingen
Student Services Bldg. EK, Room 216
1902 N. Loop 499
Harlingen, Texas 78550
956-364-4520
TTY: 956-364-4526

North Texas
119 N. Lowrance Rd.
Red Oak, Texas 75154
469-820-6811

Marshall
Administration Building, Room 150
2650 E. End Blvd South
Marshall, TX 75671
903-923-3231

Waco
Student Services Center
3801 Campus Drive
Waco, Texas 76705
254-867-3600

ADA/504 Coordinator
Chris Martin
Enterprise Risk Management - Director II
Governance, Risk & Compliance
26706 SW Freeway
Rosenberg TX 77471
346-239-3428

Access and Learning Accommodation Office
254-867-3600

Counseling Services

TSTC is committed to bolstering the wellness of its students and helping them find an optimal and safe environment in which to grow, develop and reach their full potential.

Counselors can promote positive mental health for improved personal, career and academic growth. In counseling, you can receive assistance from a caring professional who is not directly impacted by how you live your life or the choices you make. Regardless of what you share, our experienced counseling staff is on your side.

Counseling services are available for all currently enrolled TSTC students at all campus locations. Walk-ins are welcome, but having counseling sessions are dependent on availability. If another student has an appointment, they will take precedence over any walk-ins except in a crisis situation.

Drug and Alcohol Policy Statement

Texas State Technical College is a drug and alcohol free college and workplace. The unlawful manufacture, distribution, purchase, dispensation, possession or use of illegal drugs or alcohol by students and employees on college property, or as a part of any college-sponsored activity, is prohibited. Students violating any provision of the drug and alcohol policies are subject to disciplinary sanctions ranging from probation, suspension or expulsion to referral for prosecution. Employees who violate any provision of the drug and alcohol policies may be subject to disciplinary action up to termination.

Alcohol and Drug Use

Drug and alcohol use, misuse, and abuse are complex behaviors with many outcomes at both the cultural and the individual levels. Awareness of the dangerous effects of drug/alcohol use is imperative for an individual's well-being or survival. Negative consequences of drug/alcohol may be exhibited through: physical dependence (the body's learned requirement of a drug for functioning) or psychological dependence (the experiencing of persistent craving for the drug and/or a feeling the drug/alcohol is a requirement for functioning).

Abuse of any drug/alcohol whether licit or illicit may result in marginal to marked, temporary to permanent physical and/or psychological damage, even death. Since many of the illicit drugs are manufactured and sold illegally, their content varies and may contain especially harmful ingredients or amounts. Regardless of the types of drug/alcohol utilized, a perceived need for the continued use is likely to ensue, resulting in dependence. Dependence on drugs and/or alcohol alters the user's psychological functioning. The acquisition of drugs and alcohol becomes the primary focus of the drug dependent individual and often results in reduced job performance and jeopardized family and other interpersonal relationships. Criminal behavior is frequently the means for financing a drug habit. Behavior patterns often include violence and assault as the individual becomes increasingly drug/alcohol dependent. Social and psychological alienation and medical problems increase as the abuser becomes entrapped in drug/alcohol dependence. For more information on drug/alcohol counseling and referrals, please contact Counseling Services at your campus.

Possible Alcohol Sanctions
- Probation.
- On-line Alcohol Edu Course.
- Community Service.
- Workshops.
- Removal from TSTC Housing Facilities.
- Suspension.
- Expulsion.

Possible Drug Sanctions
- Probation.
- Online Drug Edu Course.
- Community Service.
- Removal from TSTC Housing Facilities.
- Suspension.
- Expulsion.

*The Conduct Officer has authority to sanction as seen fit for any violation of the Student Code of Conduct involving Drugs and Alcohol. For more information on the disciplinary process, go to the Code of Student Conduct.

The Family Educational Rights and Privacy Act (FERPA), permits colleges and universities to inform the parents/guardians of students less than 21 years of age when their son/daughter has been found in violation of university alcohol and drug regulations.

Students exhibiting signs of excessive drug/alcohol consumption will be transported via Emergency Medical Services (EMS) at the student's expense for medical attention. Refusal to cooperate with EMS personnel may result in arrest (by local/campus police) in order to ensure the student's health and safety.

Health Risks Associated with Alcohol Abuse
- Increased risk of liver cancer.
- Increased risk of cirrhosis of the liver.
- Increased risk of heart disease.
- Adverse reactions when combined with many medications, including over-the-counter drugs.
- Overdose resulting in respiratory failure.
- Impaired concentration.
- Impaired coordination.
- Risk of permanent nerve damage from long-term abuse.

Health Risks Associated with Marijuana Use
- Lowered sperm counts in men.
- Decreased testosterone levels in men.
- Increased testosterone levels in women.
- Enhanced cancer risk.
- Impaired short-term memory.
- Psychological dependence.

Health Risks Associated with the Use of Cocaine and Crack
- Addiction.
- Heart attack.
- Stroke.
- Respiratory failure.
- Brain seizures.
- Hepatitis or AIDS through sharing needles.
- Decreased ability to combat infections.
- Violent, erratic or paranoid behavior.
- Anxiety, depression.
- Cocaine psychosis.

Health Risks Associated with the Use of Hallucinogens
- Sleeplessness and tremors.
- Convulsions.
- Heart and lung failure.
- Depression, anxiety and paranoia.
- Violent behavior.

For more information visit the Drug Free Schools and Campus Act page on TSTC's website.

Counseling Services Contacts
Abilene, Breckenridge, Brownwood, Sweetwater
650 E. Hwy 80
Abilene, TX 79601
325-734-3653

Fort Bend County
26706 Southwest Freeway
Rosenberg, TX 77471
346-239-3420

Harlingen
1902 N. Loop 499
Harlingen, TX 78550
956-364-4314

Marshall:
2650 East End Blvd. South
Marshall, TX 75672
903-923-3318

East Williamson County, North Texas and Waco:
3801 Campus Drive
Waco, TX 76705
254-867-3026

Advocacy & Resource Center (ARC)

Texas State Technical College (TSTC) Advocacy & Resource Center (ARC) is dedicated to helping students develop transitional skills to help them achieve success in their academic, career and life goals in an inclusive environment that embraces the diversity of our students and community.

The ARC is designed to assist students with non-academic barriers and help the student to get back on the path toward graduation. The office functions as a resource and referral center. When life happens, we have resources that can help.

The ARC assists students who are food insecure by offering snacks, non-perishable food and personal hygiene items. This service is free for all students. We believe hunger should not be an obstacle in reaching your academic goal. Donations of nonperishable food and personal hygiene items are always welcome.

The ARC also provides referrals for child care. Some locations assist with child care stipends. Transportation stipends are available on the West Texas campuses. Services are contingent to meeting the qualifications for each respective campus and child care servicing agency.

The ARC assists students with books from the Lending Library. Priority is given to Special Population students including: non-traditional, out-of-workforce individuals, single parents, Veterans and disability students.

Each campus offers services unique to their specific student population. Please see the applicable college personnel on your campus to be directed to resources provided at your location.

Advocacy & Resource Center Contacts

East Williamson County
1600 Innovation Bldg. (CR 108)
Hutto, Texas 78634
512-759-5907

Fort Bend County
Brazos Center
26706 SW Freeway
Rosenberg TX 77471
346-239-3233

Harlingen
1902 N. Loop 499
Harlingen, Texas 78550
956-364-4305

Marshall
Administration Bldg. Room 150
2650 East End Blvd. South
Marshall, TX 75672
903-923-3231

North Texas
119 N. Lowrance Rd
Red Oak, TX 75154
972-617-4724

Waco
Student Service Center
3801 Campus Drive
Waco, Texas 76705
254-867-3066

West Texas (Abilene, Breckenridge, Brownwood and Sweetwater)
650 E. Highway 80
Abilene, TX 79601
325-734-3645

Students with Contagious Diseases

TSTC recognizes that contagious diseases are a serious threat to public health. We are committed to encouraging an informed and educated response to issues concerning infectious diseases. Individuals with HIV or hepatitis will not be discriminated against in admission to academic programs, health care or access to facilities. Students with HIV or hepatitis may attend any function or event if they are physically capable and do not pose health risks to others. All information regarding the medical status of students is confidential.

Bacterial Meningitis Notification

State law requires that information regarding bacterial meningitis be provided to college students. Bacterial meningitis is a serious, potentially deadly disease that can progress extremely fast. It is an inflammation of the membranes that surround the brain and spinal cord and can infect the blood. The disease can be treated, but those who survive may develop severe health problems and severe disabilities.

Vaccinations that are effective against 70 percent of the most common types of bacterial meningitis are available and required by those living in close quarters and by college students ages 21 or younger (22 and older are exempt). For more information, please contact your health care provider, the Texas Department of State Health Services or Centers for Disease Control and Prevention.

Student Leadership & Clubs

Clubs and Organizations

Students are encouraged to join or organize clubs with the guidance of a TSTC faculty or staff advisor. Some student clubs allow dual enrollment students to join. Clubs can be related to professional careers or nonacademic interests. The advisor is responsible for students' actions in any activity sponsored by the organization or club. All clubs or professional organizations must be granted approval.

All officially recognized student organizations sponsoring social functions, fundraisers, and/or volunteer activities, either on or off campus, MUST coordinate and register such functions with the College. Student organizations and their advisors (sponsors) are responsible for compliance with TSTC policies and regulations and all applicable state and federal laws.

TSTC is judged by the actions of its students, on and off campus. Therefore, students will be responsible to College authorities for any questionable acts, regardless of where they are committed.

Students interested in starting a new club or organization are encouraged to visit with the student club staff for further guidance.

Student Clubs/Organization Risk Management Policy

In accordance with Texas Education Code §51.9361, the advisor and president, or other designated officer, of each registered student organization shall attend a risk management program each academic year.

By law the training will include, but not be limited to, the following topics:

- Possession and use of alcoholic beverages and illegal drugs.
- Hazing.
- Sexual abuse and harassment.
- Fire and other safety issues.
- Student travel guidelines.
- Behavior at parties and other events held by the club or organization.
- Adoption of risk management policy.
- Issues regarding persons with disabilities.

Failure to comply may result in the student organization's recognition being withdrawn, withheld or denied by the administration or Board of Regents of the College.

Free Speech

As an institution of higher learning, TSTC is dedicated to maintaining a college community that values and encourages the free exchange of ideas. The college will honor the rights of free speech, expression, petition, and peaceful assembly as set forth in the U.S. Constitution.

Contact the Office of Retention Services about specific guidelines.

Student Government Association

The Student Government Association (SGA) is comprised of representatives elected annually by the student body. The SGA serves as the voice for students for many activities and policies. SGA members serve on committees and gain the opportunity to meet people seeking improvements for TSTC's academic, social and cultural environment. The SGA discusses and studies issues pursuing the best interests of students that do not conflict with TSTC policies and regulations. The SGA may also represent TSTC at annual regional and national student government conventions. SGA encourages all students to assist in the continual improvement of TSTC and ask that they do so by completing the various student surveys administered throughout the academic year. Student feedback is reviewed and considered toward excellence at TSTC. Your voice is important. Participation is open to any student enrolled at TSTC.

SkillsUSA

As a TSTC student you can participate in lots of intramural sports like football, softball and volleyball, but SkillsUSA is our technical "athletic program." Our best compete at both the state and national competitions every year. We have a history of creating champions. For over 50 years, TSTC has more medal winners than all two- and four-year colleges in Texas combined.

Do you have a competitive spirit? Do you strive to be the best at what you do? Ask an admissions advisor about which programs we have SkillsUSA teams for so you can join the team today!

Student Travel

Official student travel is defined as travel involving one or more students traveling to an event or activity that is organized or sponsored by TSTC and is located more than 25 miles from the College or during which the students will be staying overnight. International travel is not permitted at TSTC. The faculty/staff member or student club advisor is responsible for ensuring that all TSTC rules and regulations are followed. During any trips requiring an overnight stay, the advisor(s) and students must stay in the same hotel facility/complex. Students and advisor(s) must travel together during any off campus trips. The faculty/staff member or club advisor must complete and submit an official student travel packet at least ten days prior to the sponsored trip. For more information, please see the Student Organization Handbook.

Students in good standing, with at least a 2.0 GPA, and without holds on their account, are eligible to travel. Each student will be evaluated on a case by case basis.

Students driving personal vehicles and/or transporting others in their personal vehicles on college trips must

sign waivers and show proof of current liability insurance. Students will be required to ride in state vehicles or contracted transportation on long trips offered by the College. Those students traveling in a state vehicle sign a field trip release form. Students are not permitted to drive state vehicles. For full policy, please reference Statewide Operating Standard ES 3.22.

Student Leadership & Clubs
Statewide
956-364-4302 or 956-364-4370

Student Identification Cards

All new college credit students are required to obtain TSTC identification (ID) cards when they register; ID cards are optional for students in Workforce Training & Continuing Education depending on the course or program.

Students should carry these cards at all times. They must be presented for various purposes, such as cashing checks, paying fees, checking out library books, or as requested by authorized officials. Misuse of ID cards may result in disciplinary action.

Learning Resource Centers

The TSTC Learning Resource Center (LRC) serves as a central point for learning, exploration and community. The LRC provides the materials necessary to support the college's curricula and programs, fostering information literacy and lifelong learning skills, while meeting the broad reading and informational needs of a multicultural campus.

The LRC provides resources for students and employees including books, databases, e-books, media and serials. Electronic resources and databases are accessible 24/7. Trained staff are available to assist in locating and using library materials. Library services include but are not limited to: library tutorials and instruction videos, research help, program/subject LibGuides, and reference support available through chat and email. Physical library services, hours of operation, study spaces and collection availability vary by campus.

For more information, visit: tstc.libguides.com, email asklibrary@tstc.edu or chat/submit questions at tstc.libanswers.com

The Campus Store

The Campus Store offers a wide selection of books, technology tools, and supplies required for classes and labs. Visit your Campus Store to buy new and used books or to sell back your textbooks at the end of the semester.

TSTC Café

TSTC provides food service at various campuses. Meals are not offered on weekends. Please contact your local food service for hours of operation and cost.

Meal plans are offered on the Harlingen, Sweetwater and Waco campuses. Purchase of a meal plan is required for housing residents under age 21. Visit tstc.edu/campuses for details.

Campus Security

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, originally known as the Student Right-to-Know & Campus Security Act, is a federal law that requires colleges and universities to publish an annual report by October1 each year that contains data related to reports of crimes occurring on campus, at off-campus college facilities, residence halls and public property immediately adjacent to the campus. In addition, this report identifies specific policy statements.

The Campus Fire Safety Right-to-know Act became federal law with the passage of the Higher Education Opportunity Act of 2008. The new law requires colleges and universities that maintain on-campus housing facilities to compile an annual Fire Safety report that gives students, parents and the public current information about fires in on-campus housing.

The Texas State Technical College Police Department maintains a Crime Log with summary information about crimes reported to the College Police, and also maintains a Fire Log that records, by date reported, any fire that occurs in an on-campus student housing facility. The crime log and fire log are open for public inspection during normal business hours.

It is the policy of Texas State Technical College to fully comply with the federal mandates of the Clery Act by collecting and furnishing the Annual Security and Fire Safety Report.

The Clery Report contains data about specific criminal offenses that occurred on campus during the most recent calendar year and the two preceding calendar years, as well as the number of arrests for crimes occurring on campus. The Clery Report also includes geographical breakdown, expanded definition of campus, reporting of hate-crimes and a public crime log. TSTC's Annual Clery Report is available online.

Information provided by the state of Texas concerning registered sex offenders may be obtained through the Department of Public Safety's website. Additional information about college safety or information relating to state or federally mandated public information requirements, can be found on TSTC's safety and security website.

Racial Profiling Policy

It is the policy of the TSTC Police Department to police in a proactive manner and, to aggressively investigate suspected violations of law. Officers shall actively enforce state and federal laws in a responsible and professional manner, without regard to race, ethnicity or national origin. The right of all persons to be treated equally and to be free from unreasonable searches and seizures must be respected. Officers are strictly prohibited from engaging in racial profiling as defined in this policy. Racial profiling is an unacceptable patrol tactic and will not be condoned. This policy shall be applicable to all persons, whether drivers, passengers or pedestrians.

The prohibition against racial profiling does not preclude the use of race, ethnicity or national origin as factors in a detention decision. Race, ethnicity or national origin may be legitimate factors in a detention decision when used as part of an actual description of a specific suspect for whom an officer is searching. Detaining an individual and conducting an inquiry into that person's activities simply because of that individual's race, ethnicity or national origin is racial profiling.

Examples of racial profiling include but are not limited to the following:

- Citing a driver who is speeding in a stream of traffic where most other drivers are speeding because of the cited driver's race, ethnicity or national origin.
- Detaining the driver of a vehicle based on the determination that a person of that race, ethnicity or national origin is unlikely to own or possess that specific make or model of vehicle.
- Detaining an individual based upon the determination that a person of that race, ethnicity or national origin does not belong in a specific part of town or place.
- The TSTC Police Department holds two basic principles based on the adoption of this definition of racial profiling:
- Police may not use racial or ethnic stereotypes as factors in selecting whom to stop and search, while police may use race in conjunction with other known factors of the suspect.
- Law enforcement officers may not use racial or ethnic stereotypes as factors in selecting whom to stop and search.

Racial profiling is not relevant as it pertains to witnesses, etc. Students who have questions or complaints about TSTC Police Department's racial profiling policies or procedures may call the local campus office:

Abilene, Breckenridge, Brownwood, and Sweetwater	325-235-7400
Fort Bend County	956-364-4220
Harlingen	956-364-4220
Waco	254-867-3690

Making a False Alarm or Report

A person commits an offense under Section 42.06, Texas Penal Code, if he or she knowingly initiates, communicates or circulates a report of a present, past, or future bombing, fire, offense, or other emergency that he or she knows is false or baseless and that would ordinarily: (1) cause action by an official or volunteer agency organized to deal with emergencies; (2) place a person in fear of imminent serious bodily injury; or (3) prevent or interrupt the occupation of a building, room, place of assembly, place to which the public has access, or aircraft, automobile, or other mode of conveyance. The offense under Section 42.06, Texas Penal Code, of making such a false alarm or report involving a public or private institution of higher education is a state jail felony. An individual adjudged guilty of a state jail felony shall be punished by confinement in a state jail for any term of not more than two years or less than 180 days and, in addition to confinement, an individual adjudged guilty of a state jail felony may be punished by a fine not to exceed $10,000."

Parking and Traffic Regulations

Parking permits will not be required this academic school year.

Vehicle and Parking on Campus

Students are to follow all federal, state and campus statutes pertaining to the operation or parking of any and all vehicles. Any damage caused by any unauthorized activities will be charged to the offender's account. No repair work of any kind is to be done in any parking or common area. No vehicle may be left on jacks, logs, blocks, etc. Inoperable vehicles are not allowed on campus.

All vehicles are required to be in legal, operable condition to be parked on campus. Vehicles must have proper license, inspection, registration and parking permits (if applicable). Parking in the grass, on the sidewalk, in front of trash dumpsters or any area marked restricted is prohibited. Those in violation will be towed at the owner's expense.

Eighteen-wheelers, trailers of any type, boats, recreational vehicles and all motorized off-road vehicles are prohibited on campus.

Any vehicle found in violation of these restrictions may be subject to a ticket, wheel lock or towing at the owner's expense.

Operating any type of vehicle on campus is regulated by the College police department and requires your cooperation with all guidelines and safe-driving practices. As a TSTC student or employee, it is your responsibility to be familiar with these regulations and abide by them at all times. Read over the regulations carefully so you will avoid traffic and parking violations during your stay on campus. Additional information about parking regulations, violations and fees can be found at tstc.edu/about/collegesafetyandsecurity under Parking and Traffic Regulations.

Lost and Found

Lost and found items are turned over to the college police department, or designated office, who makes every effort to return the items to the owner.

Provisions will be made for lost and found property to be reclaimed at the College Police Department, the Security Department or designated office for each campus Monday through Friday from 8 a.m. to 5 p.m.

Proper identification, such as a Texas Driver's License, must be provided and the property must be sufficiently identified to be reclaimed.

If an owner cannot be contacted, the property will be held for 30 days. After 30 days unclaimed property will be disposed of in accordance with the Texas Code of Criminal Procedure Article 18.17.

Abilene: Campus Police	325-235-3605
Breckenridge: Associate Provost	254-559-7707
Brownwood: Associate Provost	325-641-3911
East Williamson County: Temple College Security	512-759-5911
Fort Bend: Security Office	346-239-3390
Harlingen: Campus Police	956-364-4220
Marshall: Security Office	903-923-3351
North Texas: Provost Office	469-820-6795
Sweetwater: Campus Police	325-235-7400
Waco: Campus Police	254-867-3690

Office of Student Success

The Office of Student Success coordinates and implements student success initiatives that provide students with opportunities to achieve their academic, career, and personal goals.

Student Success initiatives include:

- Supplemental Instruction and Tutoring services include tutoring sessions in academic and technical subject areas. Tutoring services are provided face-to-face as well as virtually, through the use of online tools and platforms, and MyTSTC Video Library. The video library consists of short video tutorials developed by our Peer Tutors on subjects like math, English, history, biology and chemistry, as well as some technical subject areas. Note: At this time, all Student Success services are done virtually and remotely. In-person tutoring or mentoring is currently not available.
- The HATSS Mentoring Program (Helping a TSTC Student Succeed) which provides mentoring, guidance and academic support to students on scholastic and/or financial aid suspension appeal.
- A referral system where students can be referred to campus and community resources.
- Seminars and workshops on academic policies, test-taking strategies, learning strategies, time management, GPA and Completion Rate Forecasting, and related topics.

Helping a TSTC Student Succeed (HATSS) Mentoring Program

Students in the HATSS Mentoring Program are required to participate in all program interventions. HATSS Mentoring Program students who fail to participate risk being administratively withdrawn from all their classes, even when staff is unable to reach the student to let them know they are being administratively dropped. HATSS Mentoring Program students administratively withdrawn, who fail their classes, or who drop all their classes on their own, will be suspended for the following semester. Suspended students who wish to return to TSTC will again be required to appeal through the HATSS Mentoring Program. Past participation in HATSS Mentoring Program interventions, or lack thereof, will be considered for the appeal request.

More information can be found on the Student Learning page on the Portal.

Supplemental Instruction and Tutoring

The Supplemental Instruction and Tutoring program at TSTC offers free tutoring and academic support services to help you achieve your academic and career goals. You

can request tutoring services by clicking on the "Need Tutoring" icon located at the top of the Student Portal landing page. You can also access the tutoring schedule, tutoring FAQs, the MyTSTC video library, Moodle reference videos, and other resources by visiting the Portal and clicking on the Student Learning drop-down menu.

For more information, please contact Norma A. Salazar, statewide lead for Student Success, at 956-364-4557 or nasalazar@tstc.edu.

Career Services

TSTC provides job placement services to all students and graduates. Every effort is made to assist registered candidates as they seek full-time and part-time employment in business, industry and government. Career Services maintains information on employers, job listings and salaries. The staff schedules interview sessions, hosts industry job fairs for employers and coordinates communication between industry and the College. Students are able to search for jobs, communicate directly with employers and post their résumés by logging in to their hireTSTC account at www.hireTSTC.com. Students may access their hireTSTC account as early as their first semester.

Students may register as early as their first semester.

The College places a high priority on helping graduating students find employment in their chosen field of study. The philosophy of the College is that its job is not complete when the student finishes his or her studies, but continues through assistance in securing employment.

Career Services conducts follow-up studies which help to determine the effectiveness of education and training and overall student success. Career Services is committed to equal opportunity in employment and does not discriminate on the grounds of race, color, gender, national origin, age, genetic information, disability, or veteran status. Facilities and placement services are available only to employers whose practices are consistent with this policy.

Some of the companies and government agencies which routinely employ TSTC graduates include: 3M, Brownwood Regional Medical Center, Chevron, Coca-Cola Southwest Beverages, Crown Lift Trucks, Eastman Chemical, Eastland Memorial Hospital, ICU Medical, Kirby Smith, Koenig & Bauer, National Field Services, NextEra Energy Resources, Oncor, Plastipak Packaging, Samsung, SEVEN Networks, TA Petro, Texas Instruments, Toyota Motor Manufacturing, Trinity Industries and Valley Baptist Medical Center.

Student Rights and Responsibilities

As members of the college community, TSTC Students are entitled to certain rights associated with attending an institution of higher education. These rights are published and can be found online on the TSTC website and in SOS ES 3.23. Student Rights and Responsibilities.

Statement of TSTC Student Rights and Responsibilities

1. The right to freedom from discrimination on the basis of race, color, religion, gender, age, national origin, genetic information, sexual orientation, disability, veteran status, or any other class that may be specified by laws or the United States Constitution.
2. The right to develop one's individual potential.
3. The right to expect a quality education.
4. The right to pursue an education without undue interference.
5. The right to be free from hazing, threats, stalking, violence, and other harassing actions.
6. The right to petition the appropriate College unit or body for redress of grievances in accordance with College procedures.
7. The right to confidentiality of official records, transcripts, disciplinary records, and other educational records consistent with the Family Educational Rights & Privacy Act (FERPA) of 1974 (Buckley Amendment).
8. The right to communicate with administrators, faculty, and staff through appropriate processes.
9. The right to publish and distribute information through the appropriate forums subject to the standards of reasonable journalism and applicable regulations/statements of the United States Constitution, the Federal Communications Commission, and the College.
10. The right, in accordance with the law and with College procedures, to freedom of speech and assembly which are subject to the College's requirements for the maintenance and order and the protection of rights and privileges of other members in the College's community.
11. The right and opportunity to participate in the formulation of procedures directly affecting students through membership or appointment to appropriate committees as determined by the College, student leadership organizations, and other recognized groups within the College.
12. The right of access to designated College facilities through student organizations that are recognized/approved by the College for business meetings,

special meetings, and programs open to the public in accordance with College procedures.

Statement of TSTC Academic Student Responsibilities

1. **Academic Freedom** - Students and all other members of the College's community are guaranteed the rights freely to study, discuss, investigate, teach, conduct research, and publish as appropriate to their respective roles and responsibilities. In the classroom and in conference, students have the right within the scope of the course of study to state divergent opinions, challenge ideas, and take reasoned exception to the data or the views offered.
Responsibility - Students and faculty share the responsibility to protect and to preserve conditions that are conducive to the learning process, including withholding judgment on matters of opinion, ensuring a fair hearing for divergent viewpoints, and observing rules of courtesy in the classroom.

2. **Academic Standards** - Students have the right to know the standards of academic performance established for each course in which they are enrolled.
Responsibility - Students are responsible for seeking clarification of any standard in question at the beginning of the term, for preparing assignments in advance of each class session, and for learning the content of any course of study for which they are enrolled. Rules applying to academic dishonesty must be followed, including those related to plagiarism and cheating.

3. **Academic Evaluation** - Students have the right to be evaluated solely on an academic basis, without regard to issues of diversity, opinions, or conduct in matters unrelated to academic standards. Students have the right to review tests and other written works after the instructor has evaluated them and are accorded protection through the Student Grievance Procedure against prejudiced or capricious academic evaluation.
Responsibility - Students are responsible for bringing academic grievances to the attention of the instructor who performed the evaluation in an effort to resolve the issue. If the matter cannot be settled at this level, the grievance may be appealed in writing as outlined in the Student Grievance Procedure.

4. **Confidentiality** - Except when disclosure may be required by state or federal law, students have the right to confidentiality of information about views, beliefs, and political associations shared privately with instructors, advisers, or academic counselors. Judgment of a student's ability and character may be provided under appropriate circumstances, normally with the knowledge and consent of the student.
Responsibility - Students have the responsibility to state clearly what type of personal information should not be disclosed to others.

5. **Academic Environment** - Students have the right to pursue an education without disruption or interference and to expect enforcement of norms for acceptable classroom behavior that prevents disruption of the teaching/learning process.
Responsibility - Students may not disrupt class or any other collegiate process by any means whatsoever (including sideline conversations, comments, arguments, intentional noisiness, or other activity which would hinder access to or utilization of academic information).

6. **Non-Discrimination** - Students have the right to learn in an environment where diversity is respected.
Responsibility - Students are responsible for respecting diversity and for behaving courteously to faculty members and to other students in the classroom regardless of difference in sex, color, religion, gender, national origin, genetic information, disability, or veteran status.

7. **Intellectual Property** - Students have the right to expect that presentation of material in a class will be in compliance with copyright law and that their own creative work will not be disseminated or published without their permission.
Responsibility - Students who receive written notification from a faculty member that the information provided in his or her course is the faculty member's intellectual property shall not distribute, use for commercial purpose, or create derivative works of the intellectual property without obtaining the express permission of the faculty member. Students shall not assume permission absent written notification from a faculty member. Students shall also respect and treat in similar manner the intellectual property of other students.

Campus Assessment, Response and Education (CARE) Team

The TSTC CARE (Campus Assessment, Response and Education) Team strives to promote campus safety and student success throughout the TSTC community. The CARE Team meets on a weekly basis to ensure that students are connected to the resources they need and that appropriate steps are taken to keep all TSTC campuses safe. Any concerns about a student should be reported to the CARE Team, whether it be a mental health concern, safety concern, behavioral concern, academic concern, or any concern that may involve a student's well-being.

To submit a CARE Team report, fill out the form at: https://cm.maxient.com/reportingform.php?TexasStateTC&layout_id=10. This form is located on the TSTC Portal homepage by clicking on the Maxient icon.

In case of an emergency, call your campus or local police/security department for immediate assistance. A CARE Team report can be filled out after immediate needs have been addressed.

Abilene, Breckenridge, Brownwood, and Sweetwater
TSTC Police Department
325-235-7400

Harlingen
TSTC Police Department
956-364-4220

Fort Bend County
Rosenberg Police Department
2120 4th Street
Rosenberg, Texas 77471
832-595-3700

Waco
TSTC Police Department
254-867-3690

Marshall
TSTC Security Department
903-923-3313

North Texas
Red Oak ISD Police Department
972-617-4607

Email us at careteam@tstc.edu with any questions or concerns.

Pets on Campus

Out of consideration for all members of the TSTC College community and for reasons of health and cleanliness, pets are not allowed in College buildings (e.g., office, residential, recreational, and academic buildings). TSTC permits approved emotional support animals in residence facilities. For more information contact Access & Learning Accommodations (ALA) or the Housing Office.

Bicycle, Skateboard, Hoverboard (and other self-balancing boards/scooters) and Rollerblade Use Guidelines

Riding bicycles, Rollerblades, hoverboards, Swagways, Segways, IO Hawks, Skywalkers or other similar self-balancing boards/scooters, or skateboards will be allowed as long as all safety precautions are taken. They may not be utilized in buildings or left in hallways, staircases, classrooms, lounges or where otherwise prohibited by a campus rule, regulation or signage. Use of any of these items in a manner that damages property or endangers or inconveniences vehicles or pedestrians is prohibited.

Concealed Handguns

The unauthorized possession of any weapon in accordance with Title 10, Chapter 46.05 of the Texas Penal Code is prohibited on the physical premises of Texas State Technical College (TSTC) with the exception of a concealed handgun that a person is licensed to carry under Subchapter H, Chapter 411, Government Code in any area not properly designated as prohibited. TSTC is in compliance with SB11 of the 84th Texas Legislative session under the policies established by TSTC regarding the carrying of concealed handguns with a permit.

Title IX

Prohibiting Sexual Misconduct and Gender-based Discrimination

To ensure and maintain a workplace and an educational environment free of, and protected from, sexual misconduct and discrimination based on gender. Texas State Technical College (TSTC) does not tolerate and expressly prohibits sexual misconduct which includes but is not limited to: sexual harassment, sexual assault, and/or sexual exploitation, stalking, dating and domestic violence. No person on the basis of sex, will be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity.

This practice applies to all members of the TSTC organization including all employees, students, and visitors. This practice and procedure includes incidents occurring on and off campus that would cause a substantial disruption in the learning environment. The procedures also include complaints filed by visitors on TSTC property. Respondents are subject to disciplinary action including possible suspension/expulsion from the College or termination of employment.

Pertinent Information

Title IX of the Education Amendments of 1972 protects people from discrimination based on sex in education programs or activities which receive federal financial assistance. Title IX states, "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

Definitions

Bullying: Repeated and/or aggressive physical or mental behavior that is intimidating or controlling.

Complainant: Individual making the complaint of sexual misconduct or gender discrimination.

Consent: Agreement to engage in sexual conduct or activity explicitly verbalized (saying "yes") or given by active, willing participation by all parties involved.

Sexual consent cannot be given by anyone who is underage, who is under the influence of alcohol or drugs, or who is otherwise mentally impaired or incapable of giving knowledgeable, informed consent.

Cyber Bullying: Repeated and/or aggressive written, graphic, or verbal harassment that is transmitted through any electronic/digital device.

Domestic Violence: Violent or aggressive behavior within the home, typically involving the violent abuse of a spouse or partner.

Gender Discrimination: Discrimination based on sex, including discrimination based on pregnancy, childbirth, false pregnancy, termination of pregnancy, or recovery from any of these conditions. The federal Title IX regulation also prohibits a school from applying any rule related to a student's parental, family, or marital status that treats students differently based on their sex.

Hazing: Acts related to the admission, initiation, or pledging of a formal or informal group that are likely to cause physical, psychological, or social harm.

Incapacitation: Lacking the ability or capacity to have a reasonable understanding of the situation one is in due to lack of sleep, disability, involuntary physical constraint, or consumption of alcohol or drugs.

Informal Resolution: An alternative to the grievance process that may be offered and facilitated by the College following the filing of a formal complaint and upon the voluntary, written consent of the parties.

Preponderance of the Evidence: The majority of the evidence which would cause a reasonable person to draw a conclusion.

Respondent: Individual against whom the complaint of sexual misconduct or gender discrimination is made.

Retaliation: An adverse action taken to try to keep someone from opposing a discriminatory practice.

Sexual Misconduct:

A. **Sexual Harassment** – includes unwelcomed gender based verbal or physical conduct that sufficiently severe, persistent, and pervasive. It has the effect of unreasonably interfering with, and/or denying or limiting someone's ability to participate in or benefit from the College's educational program and/or activities (hostile environment). It is based on power differentials (quid pro quo - "this for that") and can be the creation of a hostile environment and/or that of retaliation.
B. **Nonconsensual Sexual Contact (or Attempts)** – intentional sexual touching, however slight, with an object and/or body part(s) by an individual towards another individual that is without consent or done so forcefully.
C. **Nonconsensual Intercourse (or Attempts)** – any form of sexual intercourse (vaginal, oral, or anal) regardless of how slight the penetration without consent. Also referred to as a sexual assault/rape.
D. **Sexual Exploitation** – obtaining a personal gain for one's self or for another by taking advantage of an individual in a sexual nature. Examples include but are not limited to: invasion of sexual privacy, prostituting another person, nonconsensual video or audio taping of sexual activity, going beyond the boundaries of consent, engaging in voyeurism, knowingly transmitting a STD or HIV to another person, exposing one's genitals in nonconsensual circumstances or inducing another to expose their genitals, and sexually based stalking and/or bullying.
E. **Acquaintance Rape** – nonconsensual sexual intercourse (rape/sexual assault) by someone known to the complainant.
G. **Sexual Violence** – act penetrated against someone's will. Includes same sex violence/incidents.
H. **Sexual Abuse** – sexual interaction between an adult and a minor, including sexual intercourse, touching, or contact.

Stalking: Repetitive behavior that involves calling, texting, emailing, following, and/or otherwise communicating with an unwilling individual and which interferes with the peace of the individual and/or the individual's community. It is behavior that is directed toward a specific individual or individuals that would cause a reasonable person to fear for his/her own or another's safety and/or causes one to experience substantial emotional distress.

Complaints Involving Sexual Assault

TSTC recommends that victims of sexual assault report the offense immediately to TSTC Police Department/ Security/Local Agency. Evidence of the assault should be preserved whenever possible. The victim should not bathe

or shower and should not throw away or wash the clothes worn at the time of the assault. The victim will at all times be offered campus assistance in the reporting process and will, to the extent permitted by law, be offered anonymity if requested. Please see the section on "confidentiality" below to ensure complete anonymity.

Procedures For Complaints Made By Students

Students who believe they have been subjected to sexual misconduct or gender discrimination shall report to and consult with the designated Student Title IX Coordinator/ Representative (available through any Student Rights and Responsibilities office).

Any employee, including Resident/Community Assistants (RA/CAs), who has received a report or complaint from a student relating to sexual misconduct or gender discrimination shall immediately notify and refer that student to the designated Student Title IX Coordinator/ Representative.

A. The complaint may be oral or in writing, utilizing the Maxient form. After receiving the complaint, the designated Student Title IX Coordinator/ Representative shall initiate a thorough, prompt, and equitable investigation. Immediate interim actions may take place before the investigation is complete if determined necessary. These may include an interim suspension, no contact orders, or removal/change from campus housing. When issued, the involved parties shall be expected to adhere to the terms of the interim actions. Violations of interim measures shall not be tolerated and shall be addressed immediately. Students who violate such measures shall be subjected to further disciplinary action up to and including suspension and expulsion.
B. The Investigator shall follow the procedures outlined in the TSTC Code of Conduct under "Disciplinary Procedures." The only exception shall be the formal review process for both parties which shall follow the steps outlined below under "Formal Review Process." If the respondent is found responsible of the accusations, then the proper sanctions shall be imposed or mediation shall take place when it is acceptable to both parties. In incidents of sexual violence, mediation shall never be acceptable. If the complainant is found to have made a false accusation, then disciplinary sanctions may be imposed.
C. If the complaint involves actions of an employee at TSTC, the Investigator shall immediately notify the designated Employee Title IX Coordinator/ Representative who shall initiate the employee investigation in accordance with the steps outlined in Operating Requirements No. 2 above.
D. In all cases, a prompt, fair, and impartial investigation and resolution shall be afforded.
E. The Investigator will report to the Title IX Coordinator/ Representative for reporting purposes the date of the alleged misconduct, type of alleged misconduct, result of investigation, actions taken, if there was a formal review, results, and any other pertinent information. The complete investigation documentation shall be kept in the student's disciplinary records for the duration of the records retention length.

Formal Review Process

A request for a formal review may be submitted in writing to the appropriate Title IX Coordinator/Representative by either the respondent or complainant within three working days of receipt of the notice of the outcome of the investigation. The Title IX Coordinator shall arrange a review panel of three TSTC employees who are appointed to serve as the Review Board.

A. The College shall convene the Review Board in a timely manner, usually within five business days, but in certain situations it may be longer. Both parties shall be notified in advance of the date, time, and location of the review and the panelists. Both parties shall be afforded an opportunity to object to any member of the Review Board. This assures that the Title IX requirement to afford both parties a fair, impartial, and objective review by unbiased decision makers.
B. Communication with both parties shall continue during this process. Within two business days prior to the date of the review, a list of witnesses and all documentation must be submitted to the Title IX Coordinator by both parties. The objective of the Review Board shall be to assess the findings and sanctions imposed. The Review Board may not impose more severe penalties.
C. Because these proceedings are not designed to be a legal or judicial hearing, the Review Board operates on the basis of "Preponderance of the Evidence." The decision shall be made by majority vote.
D. If a student or employee brings an attorney for the review, he/she must provide sufficient notice (at least two business days) for TSTC to have an attorney present as well. Either attorney shall only serve in an advisory role and shall not be permitted to ask questions, present evidence, or make arguments before the Review Board. The presence of an attorney may cause a delay in the process. If an attorney refuses to follow these requirements, the Review Board may remove him or her.
E. All reviews shall be closed.

Retaliation

Any form of retaliation by either party will not be condoned by the College and the College will take immediate action to rectify the situation and additional disciplinary

action may occur, including separation from the College. Retaliation includes but is not limited to: intimidation, discrimination, coerce, or threats to either party.

Confidentiality

Privacy of individuals and confidentiality of information given will be maintained to the extent permitted by law throughout all phases of these procedures. TSTC strongly supports a complainant's interest in confidentiality in cases involving sexual misconduct. The College will try to honor this request except when the safety of the campus community is at risk or if it may create a nondiscriminatory environment for others. All employees, this includes Resident/Community Assistants (RA/CA's), are considered responsible employees and have the duty to report sexual misconduct to the proper Title IX Coordinator/ Representative and must report the name of the person disclosing the sexual misconduct, the alleged perpetrator, and all relevant facts regarding the incident, including date, time, and location. In cases involving minors, state mandatory laws may require disclosure. Steps to ensure the complainant's protection will be taken.

Texas State Technical College will provide written notification to students and employees of dating violence, domestic violence, sexual assault/misconduct, or stalking (whether the offense occurred on or off campus) of their rights and options.

Complainant's Rights

A. The right to a prompt and equitable resolution of sex discrimination complaints.
B. The right to present his/her case or have the College present. This includes the right to adequate, reliable, and impartial investigation of complaints, the right to have an equal opportunity to present witnesses and other evidence, and the right to the same review processes, for both parties.
C. The right to be notified of the time frame within which: (a) the College will conduct a full investigation of the complaint; (b) the parties will be notified of the outcome of the complaint; and (c) the parties may file a review, if applicable.
D. The right to be informed of and have access to campus resources, advisory services and information on counseling and medical resources/services.
E. The right for the complaint to be decided using a preponderance of the evidence standard (i.e., it is more likely than not that sexual harassment or violence occurred).
F. The right to be notified, in writing, of the outcome of the complaint.
G. Right to not have irrelevant past sexual history admitted.

Respondent's Rights

A. The right to a prompt and equitable resolution of all credible complaints of sexual misconduct made in good faith to college officials against the accused.
B. The right to present his or her case. This includes the right to adequate, reliable, and impartial investigation of complaints, the right to have an equal opportunity to present witnesses and other evidence, and the right to the same review processes, for both parties.
C. The right to be notified of the time frame within which: (a) the College will conduct a full investigation of the complaint; (b) the parties will be notified of the outcome of the complaint; and (c) the parties may file a review, if applicable.
D. The right to be fully informed of the nature, rules and procedures of the campus conduct process and to timely written notice of all alleged violations within the complaint.
E. The right to be informed of and have access to campus resources, advisory services and information on counseling and medical resources/services.
F. Right to not have irrelevant past sexual history admitted in a hearing. (Unless previously known behavior is similar to the alleged in the current investigation and there is evidence of a pattern of behavior.)

Reduce the Risk of Being Sexually Assaulted

1. Know your sexual intentions and limits. You have the right to say "NO" to any unwanted sexual contact. If you are uncertain of what you want, ask your partner to respect your feelings.
2. Communicate with your partner. Do not assume that someone will automatically know how you feel or will eventually "get the message" without you having to say anything. Just as it's okay to say "NO" to unwanted activities, it's okay - and important - to give clear consent to activities you would like to engage in. Avoid giving "mixed messages"; back up your words with a firm voice and clear body language (e.g., if you consent, you can verbalize with "yes" or by your active participation).
3. Remember that some people think that drinking, dressing provocatively, or going to your or someone else's room is saying you are willing to have sex. Be clear upfront about your limits in such situations.
4. Listen to your gut feelings. If you feel uncomfortable or think you might be at risk, leave the situation immediately and go to a safe place.
5. If you feel you are being pressured or coerced into sexual activity, you have a right to state your feelings and/or leave the situation. If you are concerned about the other person becoming angry, it is okay to make up an excuse to leave or create time to get help.
6. Attend large parties with friends you trust. Agree to

"look out" for one another. Leave with the group, not alone. Avoid leaving with people that you don't know very well.

Texas State Technical College will provide written notification to students and employees regarding community-related services, victim advocacy, legal assistance, visa and immigration assistance, student financial aid, and other services available for victims, both within the institution and in the community. In addition, the Title IX Coordinator/Representative will provide written notification to victims about options for, and available assistance in, changing academic, living, transportation, and working situations along with information on protective measures. This information will be provided regardless of whether the victim chooses to report the crime to campus police or local law enforcement. This request can be made to the Title IX Coordinator/Representative.

To report an incident of Sexual Misconduct or Gender-based Discrimination, or to obtain a list of available local, state, or federal victim services, please contact your local Title IX representative:

East Williamson County

Student Title IX Representative
Chemese Armstrong
Campus Enrollment Executive
chemese.armstrong@tstc.edu
512-759-5907

Employee Title IX Representative
Kori Miller
Human Resources Business Partner
kori.miller@tstc.edu
254-867-2360

Fort Bend County

Student Title IX Representative
Michelle Atkinson
Campus Enrollment Executive
michelle.atkinson@tstc.edu
903-923-3231

Employee Title IX Representative
Melissa Aleman
Human Resources Business Partner
melissa.aleman@tstc.edu
956-364-4044

Harlingen

Student Title IX Representative
Janette Gomez
Community Standards Liaison
janette.gomez@tstc.edu
956-364-4383

Employee Title IX Representative
Melissa Aleman
Human Resources Business Partner
melissa.aleman@tstc.edu
956-364-4044

Marshall

Student Title IX Representative
Michelle Atkinson
Campus Enrollment Executive
michelle.atkinson@tstc.edu
903-923-3231

Employee Title IX Representative
Kelly Contella
Executive Director, Human Resources
kelly.contella@tstc.edu
254-867-2368

North Texas

Student Title IX Representative
Jenny Rowe
Community Standards Liaison
jenny.rowe@tstc.edu
254-867-3925

Employee Title IX Representative
Amanda Oswalt
Manager, Human Resources
amanda.oswalt@tstc.edu
903-923-3221

Waco

Student Title IX Representative
Jenny Rowe
Community Standards Liaison
jenny.rowe@tstc.edu
254-867-3925

Employee Title IX Representative
Amanda Smyth
Human Resources Business Partner
amanda.smyth@tstc.edu
254-867-4825

West Texas (Abilene, Breckenridge, Brownwood and Sweetwater)

Student Title IX Representative
Griselda Sanchez
Coordinator of Transition Services
griselda.sanchez@tstc.edu
325-235-7311

Employee Title IX Representative
Carminia Del Toro
Human Resources Business Partner
carminia.deltoro@tstc.edu
325-236-8277

Student Title IX Deputy Coordinator –

Christine Stuart-Carruthers, Ph.D.
Associate Vice Chancellor of Enrollment Management
Decision Maker for Students
1902 N. Loop 499
Harlingen, TX 78550
956-364-4328

Employee Title IX Deputy Coordinator –

Pamela Mayfield
Associate Vice Chancellor for Human Resources
Decision Maker for Employees
3801 Campus Drive
Waco, TX 76705
254-867-3118

Title IX Coordinator for Students, Employees and Visitors

Edda Urrea
Sr. Executive Director of Human Resources
Learning and Development
titleix.employee@tstc.edu
956-364-4041

State/National Resources

Rape, Abuse, and Incest National Network-RAINN
1-800-656-HOPE (4763) 24 hr. hotline

Texas Crime Victims' Clearinghouse
800-848-4284
www.tdcj.texas.gov/ks_victim.html

Crime Victims' Compensation
800-983-9933
www.texasattorneygeneral.gov/cvs/crime-victims-compensation

Crime Victim's Institute
936-294-3100
www.crimevictimsinstitute.org

IMAlive
www.imalive.org

National Suicide Prevention Lifeline
800-273-TALK (8255)
www.suicidepreventionlifeline.org

Veterans Crisis Line
800-273-8255 (when connected, press 1)
www.veteranscrisisline.net

National Domestic Violence Hotline
800-799-7233
www.thehotline.org

National Sexual Violence Resource Center
877-739-3895
www.nsvrc.org

TAASA – Texas Association Against Sexual Assault
512-474-7190
taasa.org
taasaconference.org

RAINN – Rape Abuse and Incest National Network
800-656-4673
www.rainn.org

Office for Civil Rights
800-421-3481 or 214-661-9600 (Dallas)
OCR.Dallas@ed.gov

Office for Violence Against Women
202-307-6026
www.justice.gov/ovw

Noah Project – Victim Advocate
800-444-3551
noahproject.org

Women's Protective Services
800-736-6491
www.wpslubbock.org

Local Resources

Harlingen
TSTC Police
956-364-4220
After hours: 956-873-2677
Weekends: 956-873-2677

Advocacy & Resource Center
Student Center, Room 123
1902 N. Loop 499
Harlingen, Texas 78550
956-364-4520
TTY: 956-364-4526

www.tstc.edu/student_life/titleix

Marshall
Campus Resources:
Student Support Services
Admissions and Administration Building
Room 150
2650 East End Blvd. South
Marshall, Texas 75671
903-923-3301

TSTC Campus Security
903-923-3351

Area Resources:

Good Shepherd Medical Center Marshall	903-927-6000
Marshall Rural Health Clinic	903-927-6140
Health Department	903-927-6607
HealthCare Express	903-938-4363
Access Family Health	903-927-2824
Marshall Internal Medicine	903-927-6800
CVS Pharmacy	903-935-6661
Walgreens Pharmacy	903-923-0605
Matthewson Drug Co.	903-938-6741
Sabine Valley Regional MH	903-938-7725

North Texas
http://tx-elliscounty.civicplus.com/BusinessDirectoryII.aspx?lngBusinessCategoryID=22&PREVIEW=YES

Waco
TSTC Police
3801 Campus Drive
Waco, TX 76705
254-867-3690

Fort Bend County
TSTC Advocacy Resource Center
Brazos Center, Room 113
26706 SW Freeway
Rosenberg, TX 77471
346-239-3233

Fort Bend Women's Center
281-344-5750
24-HR Support Line: 281-342-HELP (4357)
http://fortbendwomenscenter.org

Houston Area Women's Center
1010 Waugh Drive
Houston, TX 77019
713-528-2121
Domestic Violence Support Line: 713-528-2121
Sexual Assault Support Line: 713-528-7273
hawc.org

LGBTQ-Houston
401 Branard Street
Houston, TX 77006
713-529-3211
montrosecenter.org

Katy Christian Ministries
5504 First Street
Katy, TX 77493
281-391-4504
Domestic Abuse Hotline: 281-391-HELP (4357)
Sexual Abuse Hotline: 281-693-RAPE (7273)
ktcm.org/crisiscenter

East Williamson County
East Williamson County Higher Education Center
1600 Innovation Blvd (CR 108)
Hutto, TX 78634
512-759-5907

Williamson County Crisis Center
Hotline 1-800-460-7233
Toll Free 1-800-460-7233
Business 512-255-1212

Hope Alliance
hopealliancetx.org
1-800-460-7233

Waco
Advocacy Resource Center
Murray Watson Jr. Student Recreation Center
3801 Campus Dr.
Waco, TX 76705
254-867-3634

Family Abuse Center
www.familyabusecenter.org
254-772-4770

The Advocacy Center
www.advocacycntr.org
3312 Hillcrest Dr.
Waco, Texas 76708
254-752-7233 (Crisis Line)
254-752-9330 (Office)

Scott & White Waco Hillcrest Baptist Medical Center
100 Hillcrest Medical Blvd.
Waco, Texas 76712
254-202-2000
www.bswhealth.com

Ascension Providence Hospital
6901 Medical Pkwy.
Waco, Texas 76712
254-751-4000
healthcare.ascension.org/Locations/Texas/TXWAC/Waco-Ascension-Providence

West Texas
Abilene, Breckenridge, Brownwood and Sweetwater
Advocacy Resource Center
300 Homer K. Taylor Drive
Sweetwater, TX 79556
325-236-8292

Abilene Area Resources:
Abilene Police Department
911
www.abilenepolice.org

Hendrick Medical Center South
6250 US-83
Abilene, TX 79606
325-428-1000
hendrickhealth.org/locations/hendrick-medical-center-south

Hendrick Health
325-670-2000
hendrickhealth.org

Regional Victim Crisis Center (24 hrs)
325-677-7895
http://regionalvictimcrisiscenter.org

Noah Project, Family Violence (24 hrs)
325-676-7107
http://noahproject.org

MHMR – Betty Hardwick Center (24 hrs)
800-758-3344
bettyhardwick.org

Love and Care Ministries
325-670-0246
www.lcmin.com

Abilene Hope Haven
325-677-4673
abilenehopehaven.org

The Salvation Army
325-677-1408
salvationarmytexas.org/abilene

Taylor County District Attorney – Protective Order Unit:
325-674-1261
www.taylorcountytexas.org/index.aspx?nid=125

Legal Aid of Northwest Texas (Abilene)
325-677-8591 or 800.933.8591
www.lanwt.org

Breckenridge Area Resources:
Breckenridge Police Department
911 or 254-559-2211
https://breckenridgetx.gov/police

Stephens County Sheriff's Office
911 or 254-559-2481
www.co.stephens.tx.us/default.aspx?Stephens_County/Sheriff

Stephens Memorial Hospital
254-559-2241
www.smhtx.com

Crime Victim Assistance Center
254-629-3223 (Eastland)
888-686-3222 (24 hr. hotline)
eastlandcrisis.org/crime-victim-assistance-center.html

MHMR – Betty Hardwick Center (24 hrs)
800-758-3344
1612 West Walker Street
Breckenridge, TX 76424
bettyhardwick.org

Brownwood Area Resources:
The Ark (Domestic Violence & Sexual Assault Shelter)
325-643-2699 or 888-313-2699 (24/7)
www.arkshelter.org

Legal Aid of Northwest Texas (Brownwood)
325-646-8659
www.lanwt.org

Central Texas MHMR (Center for Life Resources)
325-646-9574
Crisis Hotline: 800-458-7788
cflr.us/ns

Heart of Texas Children's Advocacy Center
1305 Early Blvd.
Early, TX 76802
www.cactx.org/find-a-local-center/early-cac

The Brownwood Police Dept.
325-646-2525
www.ci.brownwood.tx.us/243/Police-Department

Hendrick Medical Center Brownwood
325-646-8541
hendrickhealth.org/locations/hendrick-medical-center-brownwood

Sweetwater Campus Resources:
TSTC Police
325-235-7400 (on campus phone - call 400)

Sweetwater Local Resources:
Sweetwater Police Department
325-236-6686
sweetwatertx.gov/departments/police-department

Nolan County Sheriff's Office
325-235-5471
www.nolanso.com

Rolling Plains Memorial Hospital
325-235-1701
www.rpmh.net

Nolan County - MHMR
325-236-6619
www.wtcmhmr.org/poc/view_doc.php?type=doc&id=10429

Nolan County - District Attorney
325-235-8639
www.co.nolan.tx.us/default.aspx?Nolan_County/District.Attorney

Nolan County - Victim Services Coordinator
325-235-2338
www.co.nolan.tx.us

Hope Unlimited
325-235-1910
http://hopehousesweetwater.com

Family and Individual Counseling- Carol Frye, LPC
325-235-9896

Children's Advocacy Centers of West Texas, Inc.
325-235-1818
www.cactx.org/find-a-local-center/west-texas-childrens-advocacy-center

Bystander Intervention

Bystander Intervention is a philosophy and strategy for prevention of various types of violence, including bullying, sexual harassment, sexual assault, and intimate partner violence. Simply put, it's when someone interrupts a potentially harmful situation. That includes stopping actions or comments that promote sexual violence.

TSTC encourages members of our community to speak up and say something if they see a potentially harmful situation.

Five Steps to Accountability
1. Notice the event.
2. Recognize it as a risky situation.
3. Take responsibility for helping in the situation.
4. Have the skills necessary to intervene.
5. Take Action!

Intervening in Any Situation
- Gather details about the situation.
- Ask for help from other bystanders or friends.
- Be sensitive and understanding.
- Intervene early and in a safe manner.
- Consider multiple options.
- Don't be afraid to call for help! Resident Assistants (RA)/ Community Assistants (CA), TSTC Police, local police at 911

Nonemergency Intervention
- Don't make assumptions about the people involved or the situation.
- Keep your eyes open for red flags.
- Set a goal or a plan.
- In conversations, keep in mind that it is about mutual respect.

Emergency Intervention
- Try to keep everyone calm.
- Know your exit strategies.
- Understand that situations can escalate quickly.
- Be clear and concise when asking for help.
- Keep yourself and others safe.
- Tell whoever involved that you are committed to helping them.
- Encourage value-based decisions.

National Bystander Intervention

A CALL TO MEN
www.acalltomen.org

hollaback!
www.ihollaback.org

Take Action
www.ihollaback.org/take-action

Know Your IX
www.knowyourix.org

www.loveisrespect.org

Support a Friend
www.loveisrespect.org/supporting-others/support-a-friend-or-roommate

National Domestic Violence Hotline
www.thehotline.org

Help for Friends and Family
www.thehotline.org/support-others/ways-to-support

Legal Assistance:
Abilene
Legal Aid of NorthWest Texas
500 Chestnut, Ste. 901
Abilene, Texas 79602
325-677-8591 or 800-933-8591
www.lanwt.org

Breckenridge
Legal Aid of NorthWest Texas
500 Chestnut, Ste. 901
Abilene, Texas 79602
325-677-8591 or 800-933-8591
www.lanwt.org

Brownwood
Legal Aid of NorthWest Texas
300 N. Fisk Ave.
Brownwood, Texas 76801
325-646-8659
www.lanwt.org

Fort Bend County
Lone State Legal Aid
500 Jefferson Street, 17th Floor
Houston, Texas 77002
713-652-0077
800-733-8394
www.lonestarlegal.org

Harlingen
Texas RioGrande Legal Aid, Inc.
308 East Harrison Ave.
Harlingen, Texas 78550
956-364-3800
800-369-2651
www.trla.org

Marshall
Lone State Legal Aid
140 East Tyler, Suite 150
Longview, Texas 75601
903-758-9123 or 800-866-0821
www.lonestarlegal.org

North Texas
Legal Aid of NorthWest Texas
110 E. Main Street, Ste. 200
Waxahachie, Texas 75165
866-614-3344 or 972-923-3344
www.lanwt.org

Sweetwater
Legal Aid of NorthWest Texas
500 Chestnut, Ste. 901
Abilene, Texas 79602
325-677-8591 or 800-933-8591
www.lanwt.org

Waco
Lone Star Legal Aid
900 Austin Ave. 7th Floor
Waco, Texas 76701
254-756-7944 or 800-299-5596
www.lonestarlegal.org

Williamson County
Texas RioGrande Legal Aid
4920 N. I-35
Austin, Texas 78751
512-374-2700
800-369-9270
www.trla.org

Student Financial Aid Assistance:
Jackie Adler, Executive Director of Financial Aid
254-867-3620
jackie.adler@tstc.edu

Student Records Assistance:
Paula Arredondo, Executive Registrar
956-364-4322
paula.arredondo@tstc.edu

TSTC has an ongoing comprehensive prevention and awareness campaign and can be found on the TSTC website under Title IX.

Amnesty for Alcohol and Drug Emergencies

Alcohol poisoning and drug overdose are serious and life threatening medical emergencies. Students may encounter this type of emergency during their time at Texas State Technical College. Sometimes students are afraid to seek emergency medical care when alcohol poisoning or drug overdose is suspected because they do not want to get themselves or others in trouble. In order to encourage students to seek emergency medical care, TSTC

has instituted the Student Amnesty for Alcohol and Drug Emergencies.

Amnesty means current TSTC students can avoid formal college disciplinary action and the creation of a formal disciplinary record when they call for help for an alcohol or drug-related medical emergency.

Student Amnesty for Alcohol and Drug Emergencies applies in the case of the following:
- Possession of alcohol or drugs by a minor (minor in possession).
- Unauthorized possession or use of alcohol or drugs on campus.
- Consumption of alcohol by a minor (minor in consumption).
- Use of drugs.
- Intoxication as the result of using alcohol (including public intoxication).

Student Rights and Responsibilities office deems students appropriate for amnesty when they are referred for alcohol and drug related incidents.

The Procedure
1. Call 911 when alcohol poisoning or drug overdose is present or suspected.
2. Stay with the person under the influence.
3. Cooperate with all emergency personnel.

After the Incident
1. Student(s) will be referred to the Student Rights and Responsibilities office and will be evaluated for amnesty.
2. Student(s) eligible for amnesty will still be required to participate in an educational component and may be referred for an individual consultation however they will not face formal disciplinary action.
3. Student(s) who decline or fail to attend the educational component or fail to comply will become subject to formal disciplinary action.

There are limitations to this program and inclusion in the program is not automatic.

This program is separate, but in congruence with, the state amnesty policy, Senate Bill 1331 (Texas 911 Lifeline legislation), which provides amnesty against criminal citations for those seeking medical attention as the result of an illegal action, such as minor in consumption or possession of alcohol by a minor. Student Amnesty for Alcohol Emergencies provides protection against formal disciplinary action by the college, whereas the Texas 911 Lifeline legislation provides protection against legal action.

Amnesty for Victims of Sexual Misconduct (Title IX/VAWA)

The TSTC community encourages students to report violations involving sexual misconduct which includes sexual harassment, sexual assault, dating violence and stalking. Sometimes victims are hesitant to report to College officials because they fear that they themselves may be charged with policy violations. TSTC will not pursue disciplinary action against students (complainants or witnesses) for disclosure of personal consumption of alcohol or other drugs (underage or illegal) where the disclosure is made in connection with a good faith report or investigation of prohibited conduct and the personal consumption did not place the health or safety of any other person at risk.

Code of Student Conduct

Purpose

It is the practice of Texas State Technical College (TSTC) to encourage fair and efficient solutions for problems arising out of the student/college relationship. As responsible members of the college community, students and organizations/clubs are expected to maintain the highest level of academic and social conduct and are responsible for knowing TSTC's policies and standards. The Code of Student Conduct (the Code) is reviewed every academic year, but it is a living document which can be modified to comply with federal, state, or local law.

Definitions

Board of Regents – governing body of TSTC, appointed by the Governor of Texas.

Code of Student Conduct (the Code) – standards of conduct and procedures established to provide a full and fair opportunity for review of alleged misconduct.

College – Texas State Technical College (TSTC).

College Premises – all buildings, facilities, land, and other property that is owned, used, leased or controlled by the College.

Complaint – a statement of the essential facts constituting a violation of the Code or policy of the College.

Conduct Officer – college official authorized to investigate alleged violations of the Code and to administer the procedures and sanctions of the Code.

Disciplinary Conference (Conference) – an informal conversation with the student to review the alleged violation(s) and give them an opportunity to respond directly and present relevant information including witnesses, documents, etc.

Drug Paraphernalia – any equipment, product, or material that is used for making, using, or concealing drugs, regardless of that item's intended use at the time of its production.

Established Student Relationship – from the time of application for admissions to the College through an award of degree which will include breaks of enrollment if the student continues to have an association with the College.

Notice of Complaint – the initial document that identifies alleged misconduct in violation of the Code.

Review – a request made by a student who disagrees with the Conduct Officer's decision or sanction and requests that the Student Conduct Review Board evaluate the decision.

Review Administrator – Chair/individual assigned to collect, schedule, and be a liaison for the review process.

Preponderance of Evidence – the majority of the evidence would cause a reasonable person to support a conclusion (it is more likely than not it happened, 51 percent rule).

Residential Facilities – any facility operated by the College or under agreement by an outside agency, with sole purpose of providing housing for students.

Student – an individual who has established a relationship with the College for the purpose of taking a course or courses.

Student Conduct Review Board – a group convened at the request of a student or student group to evaluate the Dean's decision or sanction placed on an individual.

Working Day – Monday through Friday, except for official college holidays or college closings.

Application

- The Code shall provide an educational and non-adversarial process designed to resolve matters concerning student conduct. It is not designed to be a legal or judicial process.
- The Code is designed to be reliable, fair, and effective.
- Individuals who have established a student relationship with the College are subject to the Code.
- The Code shall apply to all aspects of campus life, including those in the classroom, on College property, in residential facilities, and at an off-campus sponsored activity. It may also apply to conduct that occurs off-campus.
- The Code shall operate by preponderance of evidence. (The majority of the evidence would cause a reasonable person to support a conclusion.)
- Disciplinary records shall be maintained by the Conduct Officer or designee of the local campus in accordance with the College's records and retention policy.
- The College's disciplinary process shall proceed during the pendency of any related criminal or civil proceedings and shall not be subject to reconsideration even if related charges are dismissed or otherwise resolved.
- Student clubs/organizations shall be expected to conduct themselves in a manner consistent with the College's function as an educational institution. Student clubs/organizations must observe all international, federal, state, or local laws, as well as the College's policies, including the Code, both on-campus and off-campus.

Prohibited Conduct

The Conduct Officer may initiate disciplinary proceedings against a student for violations of the Code. Specific examples of prohibited conduct subject to disciplinary action include, but are not limited to, the following:

A. Acts Violating Statewide Operating Standards (SOS), and College Policies.
B. Acts of Dishonesty
    1. Intentionally furnishing false or misleading information to the College or a college official.
    2. Forging, altering, falsifying or misusing any college document or instrument of identification.
    3. Intentionally interfering with any election process.
C. Acts Affecting the College Community
    1. Engaging in disruptive behavior or activity, including but not limited to such acts defined in the Texas Education Code.
    2. Failure to comply with the reasonable directive(s) of a college employee which includes Resident/Community Assistants.
    3. Failure to heed an official summons within the designated time or failure to identify oneself to an institutional representative in response to a request.
    4. Violation of a rule or regulation relating to residence life policies, a breach of a housing contract/lease or motor vehicle regulations.
    5. Gambling in any form.
    6. Failure to fulfill financial or contractual obligation(s) to the College.
    7. Engaging in or use of obscene, lewd, or vulgar

language, behavior and display regardless of the medium.
8. Violating the TSTC Pet Policy

D. Acts Affecting Property or Service
1. Theft or attempted theft of property or services.
2. Possession of stolen or lost property.
3. Destruction or damage to college property or the property of others.
4. Unauthorized possession, duplication or use of access devices to college property or the property of others.
5. Unauthorized entry onto or use of college or individual's premises, equipment or resources.

E. Acts Affecting Computing Resources or Technology
1. Unauthorized access, use or misuse of college computing resources, systems or data.
2. Disrupting college computer operations or the availability of computing resources.
3. Using another individual's identification, password or other credential.
4. Unauthorized use or sharing of copyrighted materials through electronic means.
5. Initiating or contributing to attacks against external networks or college systems.
6. Use of college computers to access lewd, offensive or pornographic material.
7. Transporting copies of college programs, records or data to another person or computer without written authorization.
8. Using the College's computer resources for personal gain.

F. Acts Affecting Health, Safety or Welfare
1. Engaging in physical or verbal abuse, domestic violence, threats, intimidation, harassment, bullying, coercion, physical/electronic stalking or any other conduct that threatens or endangers the health, safety or welfare of another person.
2. Possession, use, sale or distribution of any quantity, whether usable or not, of an illicit drug (including synthetic), narcotic, controlled substance, illegal drug paraphernalia or equipment. This includes medication not prescribed to oneself.
3. Public intoxication, use, possession or distribution of an alcoholic beverage(s).
4. Being under the influence of alcohol, an illicit drug, narcotic, synthetic, or controlled substance.
5. Providing minors or any other individual intoxicating beverages in violation of any state, federal or local law.
6. Hazing, as defined by the Texas Education Code, including engaging in, soliciting, encouraging, directing, aiding, or voluntarily submitting in behavior that could cause physical, mental or emotional harm to another or is considered humiliating or degrading.
7. Engaging in acts of gender discrimination, sexual misconduct, abuse, assault or harassment.
8. Engaging in speech, either orally or in writing that is directed to incite, produce lawless action, or intimidate another.
9. Possession or use of a dangerous weapon, defined as any instrument, device or object capable of inflicting physical harm. Examples of a dangerous weapon include unlicensed firearms, explosive, devices, dangerous chemicals, illegal length knives, fireworks, compressed air guns, pellet guns, stun or zip guns, tasers, BB guns, paintball guns, batons, nunchucks, etc.
10. Misuse or tampering of fire or other life safety equipment or interfering with any college or public safety function.
11. Reporting a false emergency or threat.
12. Smoking inside campus buildings or designated nonsmoking areas. Smoking means the lighting or carrying of a lighted cigar, cigarette, pipe or similar device, including an e-cigarette.
13. Engaging in acts which violate TSTC, Centers for Disease Control and Infection (CDC), and/or Occupational Safety and Health Administration (OSHA) safety anCd/or wellness guidelines.

The Office of Student Rights and Responsibilities reserves the right to contact parents/guardians or identified responsible parties related to any student safety concern or serious student issue. Federal legislation allows a College to notify parents/guardians of student (who are under the age of 21, regardless of dependency) misconduct that results in the student being found responsible for violating the alcohol/drug policy on campus. Notification to parents/guardians is at the discretion of the Conduct Officer in the event he/she feels there is a concern to be conveyed to parents/guardians

G. Acts Violating Law
1. Engaging in conduct that constitutes a criminal offense under federal, state or local law whether convicted or not, and regardless of whether the incident happened on campus or off campus.
2. Breaching the peace; or abetting or inciting another to breach the peace.
3. Disorderly conduct as defined by state law or any activity that includes, but may not be limited to: physical or verbal abuse, injury to another person, indecent displays or use of indecent language, nonconsensual acts of sexual contact/assault or disrespect for the rights and privileges of others.

H. Facilitating Acts of Misconduct
1. Planning or facilitating an act of misconduct.
2. Being present during the commission of an act of misconduct, supporting/encouraging the act or not reporting the act to the appropriate officials.

I. Acts interfering with the Disciplinary Process

1. Failure to comply with a request to schedule and attend a conference with the Conduct Officer within a designated time.
2. Failure to comply with sanction(s) imposed under the Code or by the College.
3. Falsifying or misrepresenting information at any stage of the disciplinary process.
4. Knowingly initiating a false complaint to a college official.
5. Attempting to discourage a person's participation in or use of the disciplinary process.
6. Harassment, intimidation, coercion, bribery, or retaliation against a college official or person involved in the disciplinary process.

J. Violations of Academic Integrity
Includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, any act designed to give unfair advantage to the student or any attempt to commit such an act.
1. Cheating: Activity that includes, but is not limited to:
    a. Copying from another student's assignment, test, or other academic work.
    b. Possessing material, such as class notes or textbooks, during a test that is not authorized by the instructor of record.
    c. Collaborating, without authority, or seeking aid from another student during an examination or assignment, or in preparing academic work.
    d. Using, buying, selling, stealing, transporting, or soliciting, in whole or in part, the contents of an unadministered test, test key, homework solution, or computer program.
    e. Substituting for another student or permitting another student to substitute for oneself to take a test or prepare other academic work.
    f. Paying, offering money or other valuables to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program, or to obtain information about an unadministered test, test key, homework solution, or computer program.
    g. Falsifying laboratory reports and/or other academic work offered for credit.
    h. Taking, keeping, misplacing, or damaging property of the College, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct.
    i. Willfully failing to comply with instructions given by a person administering a test.
    j. Discussing, without express permission from the instructor of record, the contents of an examination with another student who will take the examination.
    k. Divulging the contents of an examination for the purpose of preserving questions for use by another when the instructor has designated that the examination is not to be removed from the examination room or not to be returned to the student.
    l. Misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining academic or financial benefit or for the purpose of injuring another student academically or financially.
2. Collusion: The unauthorized collaboration with another person in preparing academic or lab assignments offered for credit, or the collaboration with another person to commit a violation of academic integrity.
3. Falsifying Academic Records: Activity that includes, but is not limited to, the alteration of grades or other falsification of an academic record such as a grade report, test paper, registration material, or reporting form used by the College.
4. Plagiarism: Activity that includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of another's work as one's own academic work offered for credit.

Disciplinary Procedures

The Conduct Officer or designee shall have primary authority and responsibility for administering student discipline. The Conduct Officer or designee shall assess all suspected and reported violations of the Code. Complaints regarding alleged misconduct must be submitted to the Student Rights and Responsibilities Office as soon as possible after the alleged violation.

After completing an initial inquiry, the Conduct Officer or designee may:

- Dismiss the allegations as unfounded.
- Summon the student for a conference.
- Dismiss, upon completion of the conference, the allegations or impose disciplinary sanctions.
- Impose immediate interim action if the continued presence of the student poses a danger or perceived threat to persons or property or a disruption of the academic process of the College.

Notice of Complaint

- The Conduct Officer or designee shall deliver a notice summarizing the alleged misconduct either by mail, hand delivery, or electronic means. All students are responsible for maintaining a current physical mailing address with the College. If documents are sent electronically, the student's official TSTC email address shall be used.

- The Conduct Officer or designee shall give notification of a date by which the student has to complete the conference. If the conference is not completed by that date, the student automatically waives his/her right to a conference, and the Conduct Officer or designee shall make a decision based solely on the information at hand.

Notice of Disciplinary Findings

- If it is determined that the greater weight of evidence or preponderance of evidence indicates that a student engaged in a violation of the Code, then the Conduct Officer or designee shall deliver a Notice of Disciplinary Findings.
- The Notice of Disciplinary Findings shall include information regarding the Review process.
- This notice shall inform the student of the findings, any imposed sanctions or restrictions, and the student's right to appeal, if applicable.

Sanctions for Misconduct

- Admonition – Oral or written reprimand.
- Discretionary sanctions – These include work assignments, service to the College, etc.
- Disciplinary probation – Probation indicates that the student has engaged in unacceptable behavior and that a period of observation is needed to substantiate that behavior has improved. Additional conditions may be imposed during the probationary period, such as counseling, educational seminars/courses, etc. An additional violation may result in more severe action.
- Withholding of grades, official transcript, certificate of completion, or degree.
- Suspension of rights and privileges – This type of suspension includes, but is not limited to, participation in intramurals/recreation center, participation in extracurricular activities, election to office, restrictive building or area access, revocation of housing or visitation privileges, etc.
- Administrative withdrawal from course(s).
- Bar against readmission – This action is for a specific period of time and/or may involve the student's drop from current enrollment entirely or from enrollment in one or more courses.
- Restitution – This action requires reimbursement for damages to property or for misappropriation of property. Restitution may be achieved either monetarily or by specific duties.
- Failing grade or other academic penalty.
- Denial of degree – A denial shall become part of the student's permanent record.
- Revocation of a degree, grade, or certification – A revocation shall become part of the student's permanent record.
- Suspension – A suspension shall result in the student's removal from the College for a specified period of time. A suspended student shall be administratively withdrawn from TSTC, prohibited from entering the College's premises, and blocked from future registration until approval is granted by the Conduct Officer or his/her designee. Suspension shall become a part of the student's permanent record and may be removed at the completion of the sanction, at the student's request.
- Expulsion – This action results in permanent removal from the College. An expelled student shall be administratively withdrawn from TSTC and prohibited from entering the College's premises. Expulsion shall become part of the student's permanent record.
- Other penalties as seen fit by the appropriate administrator at the College.
- Non-Academic Transcript Notation – In accordance with Texas State law under House Bill 449, postsecondary educational institutions are required to include on the student's transcript, official or unofficial, a disciplinary notation stating that the student has been expelled.

Review Process

- Only sanctions that include restrictions, loss of privileges, withholding/revocation of grades or degrees, suspension, or expulsion shall be reviewed by the Student Conduct Review Board (Board). All Title IX cases will follow the Sexual Misconduct Policy and the policies and procedures of the Title IX Review Board.
- A student shall have three working days to request a review from the Review Administrator.
- The student shall be notified within five working days of the time, date, and location of the review by the Review Administrator. Any delays due to extenuating circumstances shall be documented, and all parties shall be notified accordingly.
- At least two working days prior to the hearing, a list of witnesses and documentation must be provided to the Review Administrator.
- The Conduct Officer or designee shall present the College's case followed by the student's presentation. Each Party shall have the opportunity to present testimony and evidence in support of his position. The Board shall be allowed to question both parties and request additional information or clarification.
- Review procedures shall be confidential and closed to the public.

Student Conduct Review Board

- The Board shall consist of five (5) members of the campus community, to include a Chairperson who also serves as the Review Administrator, three (3) faculty/staff, and two (2) students. The Chairperson and the faculty and staff members shall be approved by the Executive Management Council. Designated students selected to serve on the Board must be currently enrolled and must be in good disciplinary standing.

- The Chairperson shall direct proceedings of the review and participate fully in all reviews to include voting.
- The objective of the Board is to review the findings and sanctions originally imposed by the Conduct Officer or designee. The Board may not impose more severe penalties.
- The decision shall be made by majority vote. All votes shall be recorded by secret ballot and tabulated by the Chairperson.
- The findings and conclusions of the Board shall be final.
- The Chairperson will have three (3) working days to provide written results of the review to all involved.

General Rules for Reviews

- Reviews are informal proceedings, and traditional rules of the courtroom evidence shall not apply. However, the Conduct Officer or his/her designee must show preponderance of evidence and that the sanction imposed was reasonable based upon the circumstances.
- An advisor, attorney, or support person for the student may be present for the review; however, the advisor, attorney, or support person may not make statements, represent the accused, or question witnesses.
- If an attorney accompanies a student for the review, the attorney shall not be permitted to present evidence before the Board. The College reserves the right to counsel in the event it is deemed necessary. The time frame for scheduling a review may be extended if the College elects to retain counsel.

Academic Dishonesty Procedures

Procedures for discipline due to academic dishonesty will first be considered and reviewed by Student Learning.

Notice of Complaint

- The instructor of record shall give advance written notice to the student to inform of the alleged violation and to request a meeting at a designated date, time, and location. The instructor shall notify the student of the alleged violation and provide the student an opportunity for explanation..
- If student chooses not to attend the meeting, the student automatically waives his/her right to a conference, and the faculty member will make a decision based solely on the information at hand.

Notice of Disciplinary Findings

- The instructor shall assess and render academic sanctions by completing the Academic Integrity Discipline Report Form. The student shall receive a copy of the completed form.
- The completed Academic Integrity Discipline Report Form shall inform the student of the findings, any academic sanctions imposed, and the student's right to a review if applicable. The faculty member shall report the violation and sanctions by submitting the form to the Student Conduct Officer via the official incident reporting system.

Academic Sanctions

- May include reduced or failing grade on an assignment or examination.
- May include reduced or failing grade in a course.
- May be rendered in addition to other disciplinary measures imposed by TSTC.
- Further disciplinary sanctions may occur if circumstances warrant or multiple academic dishonesty violations.

Review Process

Students may request a Review of the instructor's decision to the Student Conduct Review Board. A written, final decision will be provided to the student by the Associate Provost or designee within five working days of the Student Conduct Review Board's formal findings letter.

Compact With Texans

Texas State Technical College (TSTC) is a public coeducational institution of higher education offering courses of study in technical education leading to the award of Certificates and Associate of Applied Science Degrees. TSTC also provides workforce training to business and industry, continuing education to the public, and training programs for community and state economic development.

Compact With Texas Complaint Representatives:

Abilene, Breckenridge, Brownwood, and Sweetwater
Griselda Sanchez, Coordinator of Transition Services
griselda.sanchez@tstc.edu
325-235-7311

East Williamson County
Chemese Armstrong, Campus Enrollment Executive
chemese.armstrong@tstc.edu
512-759-5907

Fort Bend County
Michelle Atkinson, Campus Enrollment Executive
michelle.atkinson@tstc.edu
903-923-3231

Harlingen
Janette Gomez, Community Standards Liaison
janette.gomez@tstc.edu
956-364-4383

Marshall
Michelle Atkinson, Campus Enrollment Executive
michelle.atkinson@tstc.edu
903-923-3231

Waco & North Texas
Jenny Rowe, Community Standards Liaison
jenny.rowe@tstc.edu
254-867-3925

TSTC campuses are located at Abilene, Brownwood, Breckenridge, East Williamson County Higher Education Center, Fort Bend County, Harlingen, Marshall, North Texas Center, Sweetwater and Waco. TSTC serves students from more than 220 counties in Texas, and TSTC graduates may begin their careers in high-paying jobs across the state or continue their education at colleges and universities.

TSTC graduates are highly valued by business and industry for their work ethic, knowledge and workplace skills.

TSTC's Customer Service Goal

It is the goal of Texas State Technical College faculty and staff to provide a level of customer service that is beyond expectation. We pledge to be . . .

Friendly to all we meet in our work,
Helpful in all that we do,
Courteous in all of our dealings,
Responsive to customers' needs, and
Accountable for our actions.

We will deliver the highest quality services possible with the highest regard for honesty, integrity, and ethical behavior

TSTC's Formal Written Complaint /Compact With Texans Complaint Handling Procedure

It is the practice of Texas State Technical College to seek fair, efficient, and equitable solutions for problems that arise out of the student/college relationship and to allow any student to be heard when he/she feels that his/her rights have been violated or that an action taken by an employee of the College is unfair.

This procedure is available to all students to present complaints concerning disagreement or dissatisfaction arising out of the student/college relationship.

The filing of a student grievance is not to be interpreted as a way to change existing school policy or rules. The policy, rules or regulations of the College are of themselves not subject to a grievance process, only their implementation. This student grievance procedure is simply a way for the student to indicate that either:

1. An action taken by a school official or employee is inappropriate, improper, or too harsh; or
2. He/she is being treated differently from other students.

Most questions or complaints can be resolved through routine channels. Students are encouraged to discuss questions or complaints with the instructor or employee with whom the question or complaint has arisen. Complaints received verbally and resolved through routine channels are not considered official written complaints and are not subject to this procedure.

The right of a student to prompt an equitable resolution of the complaint filed shall not be impaired by the student's pursuit of other remedies, such as filing of a grievance with the responsible federal department or agency. The Student Grievance and Complaint Procedure is posted to the college website at: ES. 3.24 Students Grievance and Complaints (PDF).

Neither the Board nor any College employee shall retaliate against any student for bringing a concern or complaint. Any student who has been retaliated against should contact your local campus Title IX Representative immediately. Please visit tstc.edu/student_life/titleix for more information.

Nonacademic Grievance Procedures

A. Initial Contact – The student must first contact the parties responsible for the action or decision that is the basis of the grievance. Students are encouraged to resolve the matter through discussions with the relevant College personnel most directly associated with the matter. College personnel with whom a concern is raised by a student shall address the matter in an open and professional manner and take reasonable and prompt action to resolve it informally. The initial contact should occur within 10 working days from the date of the action or decision that is the basis of the grievance.

B. Representative – If unsuccessful in resolving the problem, the student must contact the Representative at his/her local campus. The Representative's name is available online in the TSTC Catalog and Student Handbook. The Representative shall assist the student by:
    1. Reviewing the grievance policy with the student. The Representative shall also provide the student with a copy of or a link to this SOS, ES 3.24 Student Grievances and Complaints.

2. Providing the student with the Effective Customer Service form, so that a formal written grievance may be submitted. The form is also available online in the TSTC Catalog and Student Handbook. The student shall include a summary of the nature of the grievance on the form or in an attached writing.
3. Acknowledging receipt of the grievance in writing within five working days. The notice is intended to inform the student that the matter is receiving attention and to provide the student with an estimate of the length of time needed to resolve the issue.

C. The grievance shall be submitted to the immediate supervisor or designee of the party whose actions are being grieved. The immediate supervisor or designee shall propose a resolution consistent with TSTC policies and with applicable local, state, and federal laws. The immediate supervisor or designee shall notify the student and Representative of the resolution within 15 working days from receipt of the grievance. The immediate supervisor shall also provide the student with a written copy of the proposed resolution.

D. If dissatisfied with the proposed resolution, the student may request that the Grievance Resolution Committee review the grievance. This request must be made in writing to the Representative within three (3) working days of receipt of the letter outlining the proposed resolution and must specify what in the resolution is unsatisfactory. The committee shall meet within 10 working days of receiving the student's request to review all available documentation. The Grievance Resolution Committee shall provide its written decision to both the student and the employee within five (5) working days from the date of the review. In the event that extenuating circumstances prevent the Grievance Resolution Committee from completing its investigation and/or report within five (5) working days, the student shall be notified of a new time frame. The Grievance Resolution Committee's decision shall be final.

Academic Grievance Procedures

A. Initial Contact – The student must first contact the parties responsible for the action or decision that is the basis of the grievance. Students are encouraged to resolve the matter through discussions with the relevant College personnel most directly associated with the matter. College personnel with whom a concern is raised by a student shall address the matter in an open and professional manner and take reasonable and prompt action to resolve it informally. The initial contact should occur 10 ten working days from the date of the action or decision that is the basis of the grievance.

B. Representative – If unsuccessful in resolving the problem, the student must contact the Representative at his/her local campus. The Representative's name is available online in the TSTC Catalog and Student Handbook. The Representative shall assist the student by:
   1. Reviewing the grievance policy with the student. The Representative shall also provide the student with a copy of or a link to this SOS, ES 3.24 Student Grievances and Complaints.
   2. Providing the student with the Effective Customer Service form, so that a formal written grievance may be submitted. The form is also available online in the TSTC Catalog and Student Handbook. The student shall include a summary of the nature of the grievance on the form or in an attached writing.
   3. Acknowledging receipt of the grievance in writing within five working days. The notice is intended to inform the student that the matter is receiving attention and to provide the student with an estimate of the length of time needed to resolve the issue.

C. The grievance shall be submitted to the Provost or designee of the party whose actions are being grieved. The Provost or designee shall propose a resolution consistent with TSTC policies and with applicable local, state, and federal laws. The Provost or designee shall notify the student and Representative of the resolution within fifteen (15) working days from receipt of the grievance. The Provost or designee shall also provide the student with a written copy of the proposed resolution.

D. If dissatisfied with the proposed resolution, the student may request that the Grievance Resolution Committee review the grievance. This request must be made in writing to the Representative within three (3) working days of receipt of the letter outlining the proposed resolution and must specify what in the resolution is unsatisfactory. The committee shall meet within 10 working days of receiving the student's request to review all available documentation. The Grievance Resolution Committee shall provide its written decision to both the student and the employee within five (5) working days from the date of the review. In the event that extenuating circumstances prevent the Grievance Resolution Committee from completing its investigation and/or report within five (5) working days, the student shall be notified of a new time frame. The Grievance Resolution Committee's decision shall be final.

Review Procedures

1. The Chair of the Grievance Resolution Committee will be responsible for assembling the committee to hear the review.
2. The decision of the Grievance Resolution Committee is final.
3. In extenuating circumstances, the time frame(s) may take longer than expected and the student with the grievance will be notified with a new time frame.
4. The Grievance Resolution Committee has a maximum of five working days from the date of the review to respond to the student and employee with a decision in writing.

Compact With Texans Complaint Handling Procedures

A. The Effective Customer Service Form must be completed and submitted to the local Representative. The form and the Representative's name are available online in the TSTC Catalog and Student Handbook.

B. The Representative shall acknowledge receipt of the grievance in writing within five (5) working days. The notice is intended to let the student know the matter is receiving attention and to provide the student with an estimate of the length of time needed to resolve the issue.

C. The Representative shall contact the immediate supervisor about the complaint. The supervisor shall review the complaint and interview the employee and/or any witnesses, if applicable.

D. The immediate supervisor shall provide a letter within 15 working days to the complainant that addresses the complaint and what actions, if any, were taken by TSTC. This letter shall also acknowledge that the complaint has been addressed and resolved in a reasonable time period and in a manner consistent with TSTC policies and with applicable local, state, and federal laws.

Student disciplinary decisions that involve severe disciplinary penalties are not subject to the Student Grievance Policy, but should be run through the student conduct review process.

Discrimination of a student or a Title IX grievance will be handled according to the appropriate policy.

Prohibiting Racial Harassment Policy

TSTC prohibits any act, deed or speech interpreted as racial harassment, by or against, students, employees, and guests of the College. Students or employees engaging in such conduct are subject to disciplinary action ranging from probation or suspension to termination of employment. For more information please see SOS HR 2.4.5 Racial Harassment.

Philosophy Statement

TSTC is committed to the principles of free inquiry and free expression. Members of the College community have the right to hold, vigorously defend and promote their ideas and opinions to flourish or wither according to their merits.

Respect for this right requires that students and employees tolerate expression of views that they find offensive. All members of the educational community should however, voluntarily adopt standards of civility and good taste that reflect mutual respect, understanding and sensitivity among its diverse racial, ethnic and cultural groups.

TSTC is also committed to the principles of equal opportunity and nondiscrimination. Each student and employee has the right to work and be educated without discrimination on the basis of race, color, gender, national origin, age, genetic information, disability, or veteran status.

Harassment of students or employees on the basis of race contributes to a hostile work or school environment that makes access to work or education for those subjected to it less than equal. Racist behavior also brings dishonor to the perpetrator, demoralizes and disrupts the academic community as a whole and diminishes the stature of TSTC.

Racist communication and acts that demean, ridicule and humiliate the victim and also can cause serious emotional distress, impede the learning process and in the form of "fighting words" may provoke a violent response.

For all these reasons, TSTC unequivocally condemns racist behavior in all of its forms. The Conduct Officer or designee at the local campus has the primary responsibility for responding to an accusation or complaint of racial harassment and will inform the student of complaint, investigation and resolution procedures during the initial meeting.

Upon receipt of an allegation of racial harassment, the Conduct Officer or designee shall ascertain the facts and provide mediation services to assist the student. These mediation services may include consultation with the student and alleged wrongdoer, either separately or together, and with student services staff, vice president's or other approved administrative officials of the College. If such mediation efforts result in a solution satisfactory to the student, the student shall be asked to complete a written and signed statement to the effect.

Where such mediation efforts fail or the student does not wish to pursue mediation, the student complainant may seek formal resolution concerning potential suspects of criminal behavior. The term is not relevant as it pertains to witnesses, complainants or other citizen contacts.

Instructional Philosophy

TSTC trains employees for tomorrow's careers, helping to strengthen the economic competitiveness of Texas and improve the lives of its people. TSTC believes in "learning by thinking and doing." Its curricula give students the technical knowledge, skills and abilities they need to be successful in their chosen careers. Its faculty is highly qualified, with years of business and industry experience in their respective fields. And its facilities and equipment provide students with significant opportunities to apply what they learn.

Industry Advisory Committees

Industry Advisory Committees are an essential component of TSTC's graduate success. Their members guide curriculum development by advising faculty on the skills, knowledge, and abilities that employees need. They help to create and equip facilities so students gain experiences that enhance their value to employers. Their on-going involvement ensures that TSTC students receive the right kind of education.

The TSTC Foundation

The TSTC Foundation, created in 2000, is recognized by the United States Internal Revenue Service as a 501(c)3 non-profit organization, and is purposed to "promote the interests and general welfare of all components of the Texas State Technical College System, to encourage the development of community support for technical education across Texas; to contact legislators and other governmental agencies in support of TSTC's role and mission; to influence public opinion in support of technical education in general and Texas State Technical College in particular." The TSTC Foundation can assist TSTC by providing funding for scholarships and other important purposes, investing gifts and donations, building relationships and collaborating with individuals and outside entities, and by providing financing arrangements for capital purposes.

Family Educational Rights and Privacy Act (FERPA)

TSTC complies with the Family Educational Rights and Privacy Act and informs students of their rights under the act. Student's rights covered by the act are as follows::

1. The right to inspect and review the academic record within 45 days after the day Texas State Technical College receives a request for access.
   A student should submit to the Office of the Registrar or other appropriate official, a written request that identifies the record(s) the student wishes to inspect. The school official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the school official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right of a student to petition to the College to amend or correct any part of his/her academic record which is believed to be inaccurate, misleading or in violation of the privacy or other rights of the student. When the College decides it will not amend or correct a student's record, the student has a right to a hearing to present evidence that the record is inaccurate, misleading or in violation of the privacy or other rights of the student.
   A student who wishes to petition to amend or correct a record may submit a written statement to the Custodian of Student Records identifying the part of the record the student wants changed, and specify why it should be changed. If the College decides not to amend the record as requested, the College will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment.
3. The right to provide written consent before the College discloses personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

   Texas State Technical College discloses education records without a student's prior written consent under the exception for disclosure to school officials with legitimate educational interests. A school official is as a person employed by Texas State Technical College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person approved by and under contract to TSTC in a faculty position; a person or company with whom the College has contracted (such as an attorney, auditor or collection agent); a person appointed by the Governor

and confirmed by the State Senate as a member of the Texas State College Board of Regents; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibilities for Texas State Technical College.

Upon request, the College may also disclose educational records without student written consent to the following:

a. parents of an eligible student who claim the student as a dependent for income tax purposes (form available in the Office of Admissions and Records);
b. in order to comply with a judicial order or a lawfully issued subpoena;
c. appropriate parties in a health or safety emergency;
d. an alleged victim of any crime of violence or non-forcible sex offense; the disclosure may only include the final results of any institutional disciplinary proceeding with respect to that alleged crime or offense, regardless of whether the institution concluded a violation was committed;
e. the general public if the institution determines as a result of disciplinary hearing that the student committed a crime of violence or non-forcible sex offense in violation of the institution's rules or policy or state or federal law, as authorized by state law;
f. parents of a student under the age of 21 regarding a college's determination that the student violated federal, state or local law or institutional policy governing the use or possession of alcohol or a controlled substance.

4. The right of a student to consent to release of semester credit hours taken at other institutions to the Texas Higher Education Coordinating Board.
5. The right of any person to file a complaint with the Family Education Rights and Privacy Act Office, Department of Education, Family Policy Compliance Office, 400 Maryland Avenue SW, Washington, DC 20202-4605, if TSTC violates the FERPA.

Directory Information

Under the Family Education Rights and Privacy Act of 1974, the following is designated by TSTC as directory information and may be made public unless the student desires to withhold all or any portion of it: name, preferred address, preferred telephone number, email address, classification of coursework level, enrollment status, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of college attendance, photograph images, degrees, certificates and awards received and most recent previous educational agency or institution attended by the student. A currently enrolled student may prohibit the release of directory information by completing an appropriate request form in the Enrollment Center during registration or within the first five class days of each term. Under the Privacy Act of 1974, official records are not open to the public and will not be divulged without consent from the student. Minors attending the College have the same right regarding their records as adult students. If a student is still a legal dependent of a parent or guardian, the parent has the right to access the records of the dependent student provided the parent can establish this dependency as defined by the Internal Revenue Code of 1954, section 152. This request must be made in person at the Office of Admissions & Records by providing a copy of the most recent federal income tax return and required picture identification.

If you have any questions concerning disclosure of information contact the Office of the Registrar. Student Privacy and FERPA updates are available at TSTC's website.

Use of Student Photographs and Signatures for Publications

It is the policy of Texas State Technical College to utilize images or signatures of students for promotion or advertising purposes after obtaining the student's written permission to do so. A release form shall be obtained for each set of student images or signatures retained for use by the College. The release form shall be maintained in the student's permanent academic record file. Other copies may be maintained elsewhere at the College's decision.

Academic Calendar

Information applies to a 15-week semester only. Contact the Executive Registrar for mini or flex sessions. Dates are subject to change due to COVID-19.

Fall 2021

August 2	Payment Deadline
August 27	Fall Registration Ends
August 30	Fall 2021 First Class Day
September 6	Student and Staff Holiday
September 14	Official Census Date (11th Class Day)
October 18	Early Registration begins 22/SP (Continuing students only)
October 22	Mid-Term grades Due
November 12	Last Day to Drop with a "W"
November 15	Registration Begins 22/SP (New & Probation Students)
November 25–26	Student and Staff Holiday
December 7	Final Exams Begin
December 10	End of Semester (Classes may continue beyond this date as scheduled, e.g., Saturday classes)
December 13	All Final Grades Due by 10 a.m.

Spring 2022

December 13	Payment Deadline
January 7	Spring Registration Ends
January 10	Spring 2022 First Class Day
January 17	Student and Staff Holiday
January 25	Official Census Date (11th Class Day)
March 4	Mid-Term Grades Due
To Be Determined	Spring Break Week (May vary per campus)
March 21	Registration Begins 22/SU & 22/FA (Continuing Students Only)
April 1	Last Day to Drop with a "W"
April 11	Registration Begins 22/SU & 22/FA (New & Probation Students)
April 26	Final Exams Begin
April 29	End of Semester (Classes may continue beyond this date as scheduled, e.g., Saturday classes)
May 2	All Final Grades Due by 10 a.m.

Summer 2022

April 11	Payment Deadline
May 6	Summer Registration Ends
May 9	Summer 2022 First Class Day
May 24	Official Census Date (12th Class Day)
May 30	Student and Staff Holiday
July 1	Mid-Term Grades Due
July 22	Last Day to Drop with a "W"
August 16	Final Exams Begin
August 19	End of Semester (Classes may continue beyond this date as scheduled, e.g., Saturday classes)
August 23	All Final Grades Due by 10 a.m.

ASSOCIATE DEGREES & CERTIFICATES

Due to COVID-19, programs may be taught online or hybrid. To check the modality of your program, see: tstc.edu/coronavirus/methodofinstruction

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Aircraft Airframe Technology	AAS	▲					▲				▲		■	
Aircraft Airframe Technician	CER2	▲					▲				▲		■	
Aircraft Pilot Training Technology-Airplane Specialization	AAS										▲		■	
Aircraft Powerplant Technology	AAS	▲					▲				▲		■	
Aircraft Powerplant Technician	CER2	▲					▲				▲		■	
Architectural Design & Engineering Graphics Technology	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Basic Architectural/Mechanical Drafting	OSA	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Basic Computer Aided Drafting	OSA	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Architectural/Civil Drafting Technology	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Associate Degree in Nursing	AAS						▲			▲			■	
Vocational Nursing	CER2		▲				▲			▲			■	
Auto Collision & Management Technology-Refinishing Specialization	AAS						▲				▲		■	
Auto Collision Refinishing	CER1						▲				▲		■	
Auto Collision & Management Technology-Repair COOP Specialization	AAS										▲		■	
Auto Collision & Management Technology-Repair Specialization	AAS						▲				▲		■	
Auto Collision Repair	CER2						▲				▲		■	
Auto Collision Repair	CER1						▲				▲		■	
Automation and Controls Technology	AAS							▲					■	
Automotive Technology	AAS						▲			▲	▲		■	
Automotive Technician	CER2						▲			▲	▲		■	
Chrysler Specialization	CER2										▲		■	
Toyota T-TEN Specialization	CER2										▲		■	
Automotive Maintenance & Light Repair	CER1						▲			▲	▲		■	
Basic Automotive	OSA										▲		■	
Automotive Tesla Start Technician Certificate	ATC										▲		■	
Avionics Technology	AAS										▲		■	
Biology	AS						▲					●		
Biomedical Equipment Technology	AAS						▲				▲		■	
Medical Imaging Systems Technology	AAS										▲		■	

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Building Construction Technology	AAS						▲				▲		■	
Building Construction Craftsman	CER1						▲				▲		■	
Business Management Technology	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		♦
Business Management Technology	CER2	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		♦
Basic Accounting and Bookkeeping	OSA	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		♦
Chemical Dependency Counseling	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Chemical Dependency Counseling	CER1	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Computer Networking & Systems Administration	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		♦
Basic Computer Networking & Systems Administration	OSA	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		♦
Cloud Computing	ATC	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		♦
Computer Programming Technology	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Computer Science	AS						▲					●		
Culinary Arts	AAS	▲			▲		▲				▲		■	
Culinarian	CER2	▲			▲		▲				▲		■	
Culinary Assistant	CER1	▲			▲		▲				▲		■	
Culinary Specialist	CER1	▲			▲		▲				▲		■	
Cybersecurity	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		♦
Basic Cybersecurity	OSA	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		♦
Digital Forensics Specialist	ATC	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		♦
Dental Hygiene	AAS						▲						■	
Diesel Equipment Technology-Heavy Truck Specialization	AAS					▲			▲	▲	▲		■	
Diesel Equipment Technology-Heavy Truck	CER2					▲			▲	▲	▲		■	
Diesel Equipment Technology-Heavy Truck	CER1					▲			▲	▲	▲		■	
Diesel Equipment Technology-John Deere Construction & Forestry	AAS										▲		■	
Diesel Equipment Technology-Off Highway Specialization	AAS							▲			▲		■	
Diesel Equipment Technology-Off Highway Specialization	CER2							▲			▲		■	
Diesel Equipment Technology-Off-Highway Equipment	CER1							▲			▲		■	
Digital Media Design	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		♦
Education and Training	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		

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Education and Training	CER2	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Electrical Construction	CER1										▲		■	
Electrical Lineworker Technology	AAS					▲	▲	▲			▲		■	
Electrical Lineworker	CER1					▲	▲	▲			▲		■	
Electrical Power and Controls	AAS	▲				▲			▲		▲		■	
Electromechanical Technology	AAS									▲			■	
Electromechanical Technician	CER2									▲			■	
Emergency Medical Services-Paramedic	AAS	▲		▲			▲						■	
Emergency Medical Services-Paramedic	CER2	▲		▲			▲						■	
Emergency Medical Services-Advanced EMT	CER1	▲		▲			▲						■	
Emergency Medical Services-EMT	CER1	▲		▲			▲						■	
Engineering Graphics and Design Technology	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Engineering	AS						▲					●		
Health Information Technology	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Medical Office Specialist	CER2	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Heating, Ventilation & Air Conditioning Technology (HVAC)	AAS				▲	▲	▲		▲		▲		■	◆
HVAC Residential Service Technician	CER1				▲	▲	▲		▲		▲		■	◆
HVAC Technician	CER1				▲	▲	▲		▲		▲		■	◆
Basic HVAC	OSA				▲								■	◆
Industrial Systems-Electrical Specialization	AAS							▲	▲				■	
Industrial Systems Mechanic-Electrical	CER2							▲	▲				■	
Basic Industrial Systems Electrical	OSA							▲					■	
Industrial Systems-Mechanical Specialization	AAS	▲			▲	▲					▲		■	
Industrial Systems Mechanic	CER1	▲			▲	▲					▲		■	
Basic Industrial Systems	OSA										▲		■	
Instrumentation Technology	AAS										▲		■	
Mathematics	AS						▲					●		
Mechatronics Technology	AAS						▲						■	
Basic Electromechanical Automation (Programmable Logic Controllers)	OSA					▲	▲	▲		▲	▲		■	

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Occupational Safety and Environmental Compliance	AAS		▲			▲					▲		■	
Physics	AS						▲					●		
Plumbing & Pipefitting Technology	CER1										▲		■	
Basic Plumbing	OSA										▲		■	
Precision Machining Technology	AAS				▲	▲	▲	▲	▲		▲		■	
Machining	CER1				▲	▲	▲	▲	▲		▲		■	
Basic Machining	OSA					▲		▲			▲		■	
Process Operations	AAS							▲					■	
Robotics Technology	AAS					▲					▲		■	
Solar Energy Technology	AAS										▲		■	
Energy Efficiency Specialist	CER1										▲		■	
Surgical Technology	AAS						▲						■	
Visual Communication Technology	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		
Web Design and Development	AAS	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		◆
Web Design and Development	CER1	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		◆
Basic Web Design	OSA	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●		◆
Welding Technology	AAS	▲			▲	▲	▲				▲		■	
Structural and Pipe Welding	CER2	▲			▲	▲	▲	▲	▲		▲		■	
Structural Welding	CER1	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		■	
Basic Welding - Multiple Processes	OSA	▲				▲	▲	▲	▲		▲		■	
Wind Energy Technology	AAS						▲			▲			■	
Wind Energy Technician	CER1						▲			▲			■	
Academic Core Curriculum	CCC						▲					●		

For the latest program and course offerings, visit: tstc.edu/programslist

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TSTC
TM

TSTC'S MONEY-BACK GUARANTEE

The premise is simple.
Get a **degree**. Get a **job**. Or get a **refund**.

We are so confident in the quality of our technical education programs that we guarantee you will find a job within six months of graduation – or your money back.

TSTC has been training and placing Texans in great jobs for over 50 years, but there continues to be a skills gap in highly skilled technicians in the workforce. The Money-Back Guarantee (MBG) reinforces our commitment to prepare and place highly skilled, technically competent students in the workforce.

Associate degree programs eligible for the MBG program include:

- Diesel Equipment (Heavy Truck, John Deere Construction & Forestry and Off-Highway)
- Electrical Lineworker
- Electrical Power & Controls
- Instrumentation
- Welding

For more information, visit tstc.edu/about/moneybackguarantee.

Academic Core

TSTC's Academic Core can provide you with a broad general understanding of communication skills, critical thinking, inquiry and research, and multiple perspectives about an individual and the world that we live in. With Academic Core classes, you can transfer credits to another public college or university, complete an AAS or AS at TSTC and transfer all the classes as a block to another public college or university, and get your "basics" out of the way. After completing the Academic Core courses at TSTC, you'll receive an institutional certificate of completion.

Academic Core is available at the Harlingen campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Academic Core Curriculum Certificate of Completion

Semester 1		**Credits**
ENGL 1301	Composition I	3
GOVT 2305	Federal Government (Federal constitution & topics)	3
ACGM X3XX	Creative Arts Elective	3
ACGM X3XX	Component Area Option B	3
	Semester Totals	**12**

Semester 2		**Credits**
ENGL 1302	Composition II [1]	3
GOVT 2306	Texas Government (Texas constitution & topics)	3
HIST 1301	United States History I	3
ACGM X3XX	Life and Physical Science Elective	3
ACGM X3XX	Component Area Option A	3
	Semester Totals	**15**

Semester 3		**Credits**
ACGM X3XX	Life and Physical Science Elective	3
HIST 1302	United States History II	3
ACGM X3XX	Gen Ed Mathematics Elective	3
ACGM X3XX	Language, Philosophy and Culture Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**15**
	Program Totals	42

Prerequisites:
[1] ENGL 1301

Component Area Option A (3 hours)		**Credits**
BIOL 1106	Biology for Science Majors Laboratory I (lab)	1
BIOL 1107	Biology for Science Majors Laboratory II (lab)	1
BIOL 1108	Biology for Non-Science Majors Laboratory I (lab)	1
BIOL 1109	Biology for Non-Science Majors Laboratory II (lab)	1
BIOL 2101	Anatomy & Physiology I (lab)	1
BIOL 2102	Anatomy & Physiology II (lab)	1
CHEM 1111	General Chemistry I (lab)	1
CHEM 1112	General Chemistry II (lab)	1
ENGL 2321	British Literature (single-semester course)	3
ENGL 2326	American Literature (single-semester course)	3
ENGL 2331	World Literature (single-semester course)	3
PHYS 1101	College Physics Laboratory I (lab)	1
PHYS 1102	College Physics Laboratory II (lab)	1
PHYS 1115	Physical Science Laboratory I (lab)	1
PHYS 1117	Physical Science Laboratory II (lab)	1
PSYC 2314	Lifespan Growth & Development	3

Component Area Option B (3 hours)		**Credits**
SPCH 1311	Introduction to Speech Communication	3
SPCH 1315	Public Speaking	3
SPCH 1318	Interpersonal Communication	3
SPCH 1321	Business & Professional Communication	3

Communication (6 hours)		**Credits**
ENGL 1301	Composition I	3
ENGL 1302	Composition II	3

Mathematics (3 hours)*		**Credits**
MATH 1314	College Algebra (3 SCH version)	3
MATH 1316	Plane Trigonometry	3
MATH 1332	Contemporary Mathematics (Quantitative Reasoning)	3
MATH 2312	Pre-Calculus Math (3 SCH version)*	3

*This course includes a 1 hour lab

Life and Physical Science (6 hours)		**Credits**
BIOL 1306	Biology for Science Majors I (lecture)	3
BIOL 1307	Biology for Science Majors II (lecture)	3
BIOL 1308	Biology for Non-Science Majors (lecture)	3
BIOL 1309	Biology for Non-Science Majors II (lecture)	3
BIOL 2301	Anatomy & Physiology I (lecture)	3
BIOL 2302	Anatomy & Physiology II (lecture)	3
CHEM 1311	General Chemistry I (lecture)	3
CHEM 1312	General Chemistry II (lecture)	3
PHYS 1301	College Physics I (lecture)	3
PHYS 1302	College Physics II (lecture)	3
PHYS 1315	Physical Science I (lecture)	3
PHYS 1317	Physical Science II (lecture)	3

Language, Philosophy and Culture (3 hours)		**Credits**
ENGL 2321	British Literature (single-semester course)	3
ENGL 2326	American Literature (single-semester course)	3
ENGL 2331	World Literature (single-semester course)	3
PHIL 1304	Introduction to World Religions	3

Creative Arts (3 hours)		**Credits**
ARTS 1301	Art Appreciation	3
MUSI 1306	Music Appreciation	3

American History (6 hours)		**Credits**
HIST 1301	United States History I	3
HIST 1302	United States History II	3

Government/Political Science (6 hours)		**Credits**
GOVT 2305	Federal Government (Federal constitution & topics)	3
GOVT 2306	Texas Government (Texas constitution & topics)	3

Social and Behavioral Sciences (3 hours)		**Credits**
ECON 2301	Principles of Macroeconomics	3
ECON 2302	Principles of Microeconomics	3
PSYC 2301	General Psychology	3
PSYC 2314	Lifespan Growth & Development	3
SOCI 1301	Introduction to Sociology	3

Aircraft Airframe Technology

Aviation maintenance technicians are a vital part of the aerospace industry workforce, inspecting, servicing and maintaining aircraft worldwide. The Aircraft Airframe specialty trains students specifically in major airframe components and structures such as hydraulics/pneumatics, landing gear systems, sheet metal and composite technology. Airframe technicians are employed by repair stations, contract maintenance facilities, general aviation maintenance, and regional and national airlines. For quicker entry into the industry, an Aircraft Airframe Technician certificate is also available.

Aircraft Airframe Technology is available at the Abilene, Harlingen and Waco campuses. Course sequence varies from campus to campus. Contact your local campus for details.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Aircraft Airframe Technology Associate of Applied Science

Semester 1		**Credits**
AERM 1107	Aviation Mathematics	1
AERM 1109	*and* Aviation Physics	1
AERM 1112	*and* Aviation Drawings	1
AERM 1315	*or* Aviation Science	
AERM 1203	Shop Practices	2
AERM 1205	Weight and Balance	2
AERM 1208	Federal Aviation Regulations	2
AERM 1210	Ground Operations	2
AERM 1314	Basic Electricity	3
	Semester Totals	**14**

Semester 2		**Credits**
AERM 1247	Airframe Auxiliary Systems [1]	2
AERM 1345	Airframe Electrical Systems [2]	3
AERM 1350	Landing Gear Systems	3
AERM 1449	Hydraulic, Pneumatic, and Fuel Systems [3]	4
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	**15**

Semester 3		**Credits**
AERM 1241	Wood, Fabric, and Finishes	2
AERM 1243	Instruments and Navigation/Communication [4]	2
AERM 1253	Aircraft Welding [5]	2
AERM 1254	Aircraft Composites	2
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**14**

Semester 4		**Credits**
AERM 1452	Aircraft Sheet Metal [6]	4
AERM 2230	FAA Review - Airframe	2
AERM 2231	Airframe Inspection	2
AERM 2333	Assembly and Rigging	3
ACGM X3XX	Gen Ed Elective	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	3
	Semester Totals	**17**
	Program Totals	**60**

Capstone Course(s):
AERM 2230 - FAA Review - Airframe

Prerequisites
[1] AERM 1109 or AERM 1315, [2,4] AERM 1314, [3] AERM 1109 or AERM 1315 (Prerequisite or Corequisite), [5] AERM 1203, [6] (AERM 1107, AERM 1112, AERM 1203) or (AERM 1315, AERM 1203)

Aircraft Airframe Technician Certificate 2

Semester 1		**Credits**
AERM 1107	Aviation Mathematics	1
AERM 1109	*and* Aviation Physics	1
AERM 1112	*and* Aviation Drawings	1
AERM 1315	*or* Aviation Science	
AERM 1203	Shop Practices	2
AERM 1205	Weight and Balance	2
AERM 1208	Federal Aviation Regulations	2
AERM 1210	Ground Operations	2
AERM 1314	Basic Electricity	3
	Semester Totals	**14**

Semester 2		**Credits**
AERM 1247	Airframe Auxiliary Systems [1]	2
AERM 1345	Airframe Electrical Systems [2]	3
AERM 1350	Landing Gear Systems	3
AERM 1449	Hydraulic, Pneumatic, and Fuel Systems [3]	4
	Semester Totals	**12**

Semester 3		**Credits**
AERM 1241	Wood, Fabric, and Finishes	2
AERM 1243	Instruments and Navigation/Communication [4]	2
AERM 1253	Aircraft Welding [5]	2
AERM 1254	Aircraft Composites	2
	Semester Totals	**8**

Semester 4		**Credits**
AERM 1452	Aircraft Sheet Metal [6]	4
AERM 2230	FAA Review - Airframe	2
AERM 2231	Airframe Inspection	2
AERM 2333	Assembly and Rigging	3
	Semester Totals	**11**
	Program Totals	**45**

Capstone Course(s):
AERM 2230 - Airframe Inspection

Prerequisites
[1] AERM 1109 or AERM 1315,[2,4] AERM 1314
[3] AERM 1109 or AERM 1315 (Prerequisite or Corequisite),[5] AERM 1203
[6] (AERM 1107, AERM 1112, AERM 1203) or (AERM 1315, AERM 1203)

Aircraft Pilot Training Technology

With aviation experience dating back over 50 years, TSTC has been a proud provider of professional pilots throughout the aviation industry. Our students get first-class education with hands-on training in the world's most popular training aircraft, along with classroom and one-on-one ground instruction with industry professionals. Students spend most of their time learning by doing while training to become industry professionals. All Aircraft Pilot Training students must submit an application to the program after being accepted as TSTC students. The application includes providing evidence of a Class II flight physical and a current Class II medical record. All new students must successfully complete a Texas Success Initiative evaluation (or equivalent) and any necessary remedial academic courses before registering for classes in the APT program. Flight costs vary per term and are subject to change due to variables such as fluctuating fuel and flight-time costs.

Aircraft Pilot Training is available at the Waco campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Aircraft Pilot Training Technology-Airplane Specialization Associate of Applied Science

Semester 1		**Credits**
AIRP 1215	Private Flight	2
AIRP 1301	Air Navigation	3
AIRP 1307	Aviation Meteorology	3
AIRP 1417	Private Pilot Ground School	4
	Semester Totals	**12**

Semester 2		**Credits**
AIRP 1451	Instrument Ground School	4
AIRP 2250	Instrument Flight [1]	2
AIRP 2331	Advanced Meteorology	3
ACGM X3XX	Gen Ed Mathematics Elective	3
	Semester Totals	**12**

Semester 3		**Credits**
AIRP 1343	Aerodynamics	3
AIRP 2355	Propulsion Systems	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**12**

Semester 4		**Credits**
AIRP 1175	Intermediate Flight [2]	1
AIRP 1345	Aviation Safety	3
AIRP 2337	Commercial Ground School	3
AIRP 2239	Commercial Flight [3]	2
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**12**

Semester 5		**Credits**
AIRP 2175	Human Factors in Aviation	1
AIRP 2236	Certified Flight Instructor - Flight [4]	2
AIRP 2251	*or* Multiengine Flight [5]	
AVIM 2337	Aviation Law	3
AIRP 2349	Instructor Ground School	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**12**

	Program Totals	**60**

Capstone Course(s):
AIRP 2349 Instructor Ground School

Prerequisites
[1,2] AIRP 1215
[3] AIRP 2250
[4,5] AIRP 2239

Aircraft Powerplant Technology

Engine maintenance facilities, contract maintenance, general aviation operators, and regional and national airlines employ technicians specializing in powerplant accessories, components, and reciprocating and turbine engine technology. Aircraft Powerplant Technology students learn basic aviation knowledge, shop practices, aircraft engines and electrical, troubleshooting and overhaul. For quicker entry into the industry, an Aircraft Powerplant Technology certificate is available.

Aircraft Powerplant Technology is available at the Abilene, Harlingen and Waco campuses. Course sequence varies from campus to campus. Contact your local campus for details.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Aircraft Powerplant Technology Associate of Applied Science

Semester 1		**Credits**
AERM 1107	Aviation Mathematics	1
AERM 1109	*and* Aviation Physics	1
AERM 1112	*and* Aviation Drawings	1
AERM 1315	*or* Aviation Science	
AERM 1203	Shop Practices	2
AERM 1205	Weight and Balance	2
AERM 1208	Federal Aviation Regulations	2
AERM 1210	Ground Operations	2
AERM 1314	Basic Electricity	3
	Semester Totals	**14**

Semester 2		**Credits**
AERM 1351	Aircraft Turbine Engine Theory [1]	3
AERM 1357	Fuel Metering and Induction Systems	3
AERM 1444	Aircraft Reciprocating Engines [2]	4
AERM 1456	Aircraft Powerplant Electrical [3]	4
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	**17**

Semester 3		**Credits**
AERM 1240	Aircraft Propellers [4]	2
AERM 2341	Powerplant and Auxiliary Power Units	3
AERM 2351	Aircraft Turbine Engine Overhaul [5]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**14**

Semester 4		**Credits**
AERM 2234	FAA Review - Powerplant	2
AERM 2352	Aircraft Powerplant Inspection	3
AERM 2447	Aircraft Reciprocating Engine Overhaul 6	4
ACGM X3XX	Gen Ed Elective	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	3
	Semester Totals	**15**
	Program Totals	**60**

Capstone Course(s):
AERM 2234 - FAA Review - Powerplant

Prerequisites
[1,2,4] AERM 1109 or AERM 1315
[3] AERM 1314
[5] AERM 1351
[6] AERM 1444

Aircraft Powerplant Technician Certificate 2

Semester 1		**Credits**
AERM 1107	Aviation Mathematics	1
AERM 1109	*and* Aviation Physics	1
AERM 1112	*and* Aviation Drawings	1
AERM 1315	*or* Aviation Science	
AERM 1203	Shop Practices	2
AERM 1205	Weight and Balance	2
AERM 1208	Federal Aviation Regulations	2
AERM 1210	Ground Operations	2
AERM 1314	Basic Electricity	3
	Semester Totals	**14**

Semester 2		**Credits**
AERM 1351	Aircraft Turbine Engine Theory [1]	3
AERM 1357	Fuel Metering and Induction Systems	3
AERM 1444	Aircraft Reciprocating Engines [2]	4
AERM 1456	Aircraft Powerplant Electrical [3]	4
	Semester Totals	**14**

Semester 3		**Credits**
AERM 1240	Aircraft Propellers [4]	2
AERM 2341	Powerplant and Auxiliary Power Units	3
AERM 2351	Aircraft Turbine Engine Overhaul [5]	3
	Semester Totals	**8**

Semester 4		**Credits**
AERM 2234	FAA Review - Powerplant	2
AERM 2352	Aircraft Powerplant Inspection	3
AERM 2447	Aircraft Reciprocating Engine Overhaul [6]	4
	Semester Totals	**9**
	Program Totals	**45**

Capstone Course(s):
AERM 2234 - FAA Review - Powerplant

Prerequisites
[1,2,4] AERM 1109 or AERM 1315
[3] AERM 1314
[5] AERM 1351
[6] AERM 1444

Architectural Design & Engineering Graphics Technology

The Architectural Design & Engineering Graphics Technology program works with designers and engineers to convert their ideas and concepts for new products and designs into accurate drawings that specify size, shape, materials and specifications. These drawings are then used by professionals in manufacturing, consulting and construction to produce the desired product or structure. Designs are created using computer-aided drafting (CAD) equipment. Solid modeling and parametric concepts are introduced and utilized early in the program and throughout the curriculum.

Architectural Design & Engineering Graphics Technology is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Architectural Design & Engineering Graphics Technology
Associate of Applied Science

Semester 1		Credits
DFTG 1309	Basic Computer-Aided Drafting	3
DFTG 1345	Parametric Modeling and Design [1]	3
ENGR 1304	or Engineering Graphics I (3 SCH Version) [2]	
MATH 1314	College Algebra (3 SCH Version)	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**12**

Semester 2		Credits
ARCE 1321	Architectural Illustration [3]	3
DFTG 1333	Mechanical Drafting [4]	3
SRVY 1341	Land Surveying [5]	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	**12**

Semester 3		Credits
DFTG 2302	Machine Drafting [6]	3
DFTG 1330	Civil Drafting I [7]	3
DFTG 1317	Architectural Drafting - Residential [8]	3
ACGM X3XX	Gen Ed Speech Elective	3
	Semester Totals	**12**

Semester 4		Credits
DFTG 2328	Architectural Drafting - Commercial [9]	3
DFTG 2321	Topographical Drafting [10]	3
DFTG 2335	Advanced Technologies in Mechanical Design and Drafting [11]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**12**

Semester 5		Credits
ARCE 1352	Structural Drafting [12]	3
DFTG 1393	Special Topics in Civil Drafting and Civil Engineering CAD/CADD [13]	3
DFTG 1392	Special Topics in Architectural Drafting and Architectural CAD/CADD [14]	3
DFTG 1395	*or* Special Topics in Mechanical Drafting and Mechanical Drafting CAD/CADD [15]	
DFTG 2386	*or* Internship - Drafting and Design Technology/Technician, General [16]	
DFTG 2357	Advanced Technologies in Pipe Design and Drafting [17]	3
	Semester Totals	**12**
	Program Totals	**60**

Capstone Course(s):
ARCE 1352 - Structural Drafting

Prerequisites
[1, 3, 5] DFTG 1309 (Prerequisite or Corequisite)
[2] MATH 1314
[4, 7, 16, 17] DFTG 1309 (Prerequisite)
[6] DFTG 1333 (Prerequisite)
[8] ARCE 1321 (Prerequisite)
[9] DFTG 1317 (Prerequisite)
[10] DFTG 1330 (Prerequisite)
[11] DFTG 2302 (Prerequisite)
[12, 14] DFTG 2328 (Prerequisite)
[13] DFTG 2321 (Prerequisite)
[15] DFTG 2335 (Prerequisite)

Basic Architectural/Mechanical Drafting OSA Occupational Skills Award

Semester 1		Credits
DFTG 1309	Basic CAD	3
DFTG 1345	Parametric Modeling and Design	3
DFTG 2331	Advanced Technologies in Architectural Design and Drafting	3
	Total	**9**

Basic Computer Aided Drafting OSA Occupational Skills Award

Semester 1		Credits
DFTG 1309	Basic CAD	3
DFTG 1345	Parametric Modeling and Design	3
DFTG 1325	Blueprint Reading and Sketching	3
	Total	**9**

Architectural/Civil Drafting Technology

Whether it's as large as a high-rise building or as small as a shed, nothing can be built without first envisioning a plan — a blueprint, sketch or drawing detailing everything a project needs for completion. Drafting is a universal language; it is the common language used in many major industries as a first step to bringing this vision to life. TSTC Architectural/Civil Drafting students prepare for drafting applications in commercial architecture; building structures; mechanical, electrical and plumbing systems for buildings; site work; and many other areas of construction-related drafting. During your educational training at TSTC, you will use the latest in computer software and hardware to gain valuable experience utilizing today's most popular drafting tool — Computer-Aided Drafting, or CAD, systems.

Architectural/Civil Drafting is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course

Architectural/Civil Drafting Technology Associate of Applied Science

Semester 1		**Credits**
DFTG 1309	Basic Computer-Aided Drafting	3
DFTG 1325	Blueprint Reading and Sketching	3
MATH 1314	College Algebra (3 SCH Version)	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	12

Semester 2		**Credits**
ARCE 1303	Architectural Materials and Methods of Construction	3
ARCE 1321	Architectural Illustration [1]	3
DFTG 1330	Civil Drafting I [2]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	12

Semester 3		**Credits**
DFTG 1317	Architectural Drafting - Residential [3]	3
DFTG 2321	Topographical Drafting [4]	3
ARCE 1342	Codes, Specifications, and Contract Documents [5]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	12

Semester 4		**Credits**
ARCE 2352	Mechanical and Electrical Systems [6]	3
DFTG 2328	Architectural Drafting - Commercial [7]	3
DFTG 1393	Special Topics in Civil Drafting and Civil Engineering [8]	3
ACGM X3XX	Gen Ed Speech Elective	3
	Semester Totals	12

Semester 5		**Credits**
ARCE 1352	Structural Drafting [9]	3
DFTG 2312	Technical Illustrations and Presentation [10]	3
DFTG 2331	Advanced Technologies in Architectural Design and Drafting [11]	3
DFTG 1392	Special Topics in Architectural Drafting and Arch CAD [12]	3
DFTG 2386	*or* Internship - Drafting and Design Technology, General [13]	
	Semester Totals	12
	Program Totals	60

Capstone Course(s):
ARCE 1352 - Structural Drafting

Prerequisites
[1] DFTG 1309 (Prerequisite or Corequisite)
[2,13] DFTG 1309 (Prerequisite)
[3] ARCE 1321 (Prerequisite)
[4] DFTG 1330 (Prerequisite)
[5] ARCE 1303 (Prerequisite or Corequisite)
[6] DFTG 2328 (Prerequisite or Corequisite)
[7] DFTG 1317 (Prerequisite)
[8] DFTG 2321 (Prerequisite)
[9,10,11,12] DFTG 2328 (Prerequisite)

Associate Degree in Nursing

Registered nurses (RNs) make up the largest health care occupation in the United States. Statistics show there are almost 3 million jobs available and over 100,000 vacant positions. Nurses are a critical and essential resource in patient care. They consider the patient as a "whole," which includes emotional, mental and physical needs. They work to restore health and wellness, prevent disease, provide and coordinate patient care, and educate patients and the public about various health conditions.

RNs can work in hospitals, physicians' offices, home health care services, nursing care facilities, correctional facilities, schools, the military and more. Students participate in an active learning environment, including simulation learning labs that are led by instructors with multiple medical/surgical backgrounds.

The Associate Degree in Nursing (ADN) program at TSTC, is a fast-paced associate degree nursing program. TSTC works hand in hand with healthcare industry leaders to train highly qualified nurses. There is a significant and growing need for registered nurses throughout the state of Texas and all over the United States.

The program includes three semesters of nursing related courses and clinicals. The entire program requires 60 credits, taking approximately three years to complete from start to finish (which includes one full year in the Vocational Nursing program).

Students scoring less than 80% as a final course average in nursing courses will not progress to the next level or graduate from the program. Otherwise, they will be dismissed and given the option to reapply and repeat the program in full. If students fail more than one course with less than an 80%, they will be dismissed from the program without the opportunity to apply for readmission to the TSTC RN program.

The 80% passing rate in the TSTC RN program is based on preparation of our students to pass the Texas Board of Nurses NCLEX Exam. The NCLEX Exam, which is required to become a Registered Nurse, requires 80% to pass.

Associate Degree in Nursing is available at the Harlingen and Sweetwater campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Associate Degree in Nursing
Associate of Applied Science

Semester 1		**Credits**
BIOL 2401	Anatomy & Physiology I (lecture + lab)	4
BIOL 2301	*or* Anatomy & Physiology I (lecture)	
BIOL 2101	*and* Anatomy & Physiology I (lab)	
ENGL 1301	Composition I	3
PSYC 2314	Lifespan Growth & Development	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**13**

Semester 2		**Credits**
BIOL 2402	Anatomy & Physiology II (lecture + lab)	4
BIOL 2302	*or* Anatomy & Physiology II (lecture)	
BIOL 2102	*and* Anatomy & Physiology II (lab)	
BIOL 2420	Microbiology for Non-Science Majors (lecture + lab)	4
BIOL 2320	*or* Microbiology for Non-Science Majors (lecture)	
BIOL 2120	*and* Microbiology for Non-Science Majors Laboratory (lab)	
PSYC 2301	General Psychology	3
	Semester Totals	**11**

Semester 3		**Credits**
RNSG 1210	Introduction to Community-Based Nursing	2
RNSG 1227	Transition to Professional Nursing	2
RNSG 1261	Clinical - Registered Nursing/Registered Nurse	2
RNSG 1300	Health Assessment Across the Lifespan	3
RNSG 1301	Pharmacology	3
	Semester Totals	**12**

Semester 4		**Credits**
RNSG 1343	Complex Concepts of Adult Health	3
RNSG 1412	Nursing Care of the Childbearing and Childrearing Family	4
RNSG 2162	Clinical - Registered Nursing/Registered Nurse	1
RNSG 2213	Mental Health Nursing	2
RNSG 2262	Clinical - Registered Nursing/Registered Nurse	2
	Semester Totals	**12**

Semester 5		**Credits**
RNSG 1463	Clinical - Registered Nursing/Registered Nurse	4
RNSG 2221	Professional Nursing: Leadership and Management	2
RNSG 2230	Professional Nursing Review and Licensure Preparation	2
RNSG 2432	Enhanced Concepts of Adult Health	4
	Semester Totals	**12**
	Program Totals	**60**

Capstone Course(s):
RNSG 2230 - Professional Nursing Review and Licensure Preparation

Auto Collision & Management Technology

According to autonews.com, auto collision repair is a $35 billion-a-year business in the United States. That's why the auto body industry is a great career choice for those seeking a relatively stable job with above-average wages. At TSTC, you'll get the crucial hands-on experience that can make you irresistible to employers. The Auto Collision program offers a specialization in auto body refinishing, collision repair and sheet metal fabrication. For quicker entry into the industry, certificate programs are available. Advanced certificate programs are also available.

Auto Collision & Management Technology is available at the Harlingen and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Auto Collision & Management Technology-Refinishing Specialization Associate of Applied Science

Semester 1		**Credits**
ABDR 1203	Vehicle Design and Structural Analysis	2
ABDR 1215	Vehicle Trim and Hardware	2
ABDR 1349	Automotive Plastic and Sheet Molded Compound Repair	3
ABDR 1371	Basic Paint Techniques, Equipment & Environmental Practices	3
ENGL 1301	Composition I	3
	Semester Totals	13

Semester 2		**Credits**
ABDR 1419	Basic Metal Repair	4
ABDR 1431	Basic Refinishing [1]	4
ABDR 1458	Intermediate Refinishing [2]	4
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	18

Semester 3		**Credits**
ABDR 2255	Collision Repair Estimating	2
ABDR 2371	Refinishing Process I [3]	3
ABDR 2449	Advanced Refinishing [4]	4
ABDR 2551	Specialized Refinishing Techniques [5]	5
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	17

Semester 4		**Credits**
ABDR 2270	Advanced Application Processes of Refinishing [6]	2
ABDR 2281	*or* Cooperative Education - Autobody/Collision *and* Repair Technology/Technician [7]	
ABDR 2357	Collision Repair Shop Management [8]	3
ABDR 2453	Color Analysis and Paint Matching [9]	4
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	12
	Program Totals	60

Capstone Course(s):
ABDR 2270 - Advanced Application Processes of Refinishing
or ABDR 2281 - Cooperative Education - Autobody/Collision and Repair Technology/Technician
ABDR 2453 - Color Analysis and Paint Matching

Prerequisites
[1,2] ABDR 1371
[3,4,5] ABDR 1458, ABDR 1431
[6,7] ABDR 2449, ABDR 2551
[8] ABDR 2255
[9] ABDR 2449, ABDR2551

Auto Collision Refinishing Certificate 1

Semester 1		**Credits**
ABDR 1203	Vehicle Design and Structural Analysis	2
ABDR 1215	Vehicle Trim and Hardware	2
ABDR 1349	Automotive Plastic and Sheet Molded Compound Repair	3
ABDR 1371	Basic Paint Techniques, Equipment & Environmental Practices	3
TECM 1303	Technical Calculations	3
	Semester Totals	13

Semester 2		**Credits**
ABDR 1419	Basic Metal Repair	4
ABDR 1431	Basic Refinishing [1]	4
ABDR 1458	Intermediate Refinishing [2]	4
POFT 1301	Business English	3
	Semester Totals	15

Semester 3		**Credits**
ABDR 2255	Collision Repair Estimating	2
ABDR 2371	Refinishing Process I [3]	3
ABDR 2449	Advanced Refinishing [4]	4
ABDR 2551	Specialized Refinishing Techniques [5]	5
	Semester Totals	14
	Program Totals	42

Capstone Course(s):
ABDR 2449 - Advanced Refinishing

Prerequisites
[1,2] ABDR 1371
[3,4,5] ABDR 1458, ABDR 1431

Auto Collision & Management Technology Repair Specialization Associate of Applied Science

Semester 1		Credits
ABDR 1203	Vehicle Design and Structural Analysis	2
ABDR 1215	Vehicle Trim and Hardware	2
ABDR 1349	Automotive Plastic and Sheet Molded Compound Repair	3
ABDR 1371	Basic Paint Techniques, Equipment & Environmental Practices	3
ENGL 1301	Composition I	3
	Semester Totals	**13**

Semester 2		Credits
ABDR 1307	Collision Repair Welding [1]	3
ABDR 2255	Collision Repair Estimating	2
ABDR 2435	Structural Analysis and Damage Repair IV [2]	4
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**15**

Semester 3		Credits
ABDR 1323	Front and Rear Wheel Alignment [3]	3
ABDR 1419	Basic Metal Repair	4
ABDR 2447	Advanced Collision Repair Welding [4]	4
ACGM X3XX	Gen Ed Elective	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**17**

Semester 4		Credits
ABDR 1442	Structural Analysis and Damage Repair II [5]	4
ABDR 1481	*or* Cooperative Education - Autobody/Collision and Repair Technology/Technician	
ABDR 2357	Collision Repair Shop Management [6]	3
ABDR 2359	Structural Sectioning [7]	3
ABDR 2502	Auto Body Mechanical and Electrical Service [8]	5
Semester Totals		15
	Program Totals	**60**

Capstone Course(s):
ABDR 1442 - Structural Analysis and Damage Repair II
or ABDR 1481 Cooperative Education - Autobody/Collision and Repair Technology/Technician
ABDR 2359 - Structural Sectioning
ABDR 2502 - Auto Body Mechanical & Electrical Service

Prerequisites
[1,2] ABDR 1215
[3] ABDR 2435
[4] ABDR 1307
[5] ABDR 1323, ABDR 1419, ABDR 2435
[6] ABDR 2255
[7,8] ABDR 1307, ABDR 1419, ABDR 2435

Auto Collision & Management Technology Repair Specialization Co-op Associate of Applied Science - Waco only

Semester 1: First Session		Credits
ABDR 1215	Vehicle Trim and Hardware	2
ABDR 1349	Automotive Plastic and Sheet Molded Compound Repair	3
ABDR 1371	Basic Paint Techniques, Equipment & Environmental Practices	3
ENGL 1301	Composition I	3
	Semester Totals	**11**

Semester 1: Second Session		Credits
ABDR 1280	Cooperative Education - Autobody/Collision and Repair Technology/Technician	2
	Semester Totals	**2**

Semester 2: First Session		Credits
ABDR 1307	Collision Repair Welding [1]	3
ABDR 2255	Collision Repair Estimating	2
ABDR 2435	Structural Analysis and Damage Repair IV [2]	4
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	**12**

Semester 2: Second Session		Credits
ABDR 2380	Cooperative Education - Autobody/Collision and Repair Technology/Technician	3
	Semester Totals	**3**

Semester 3: First Session		Credits
ABDR 1419	Basic Metal Repair	4
ABDR 2447	Advanced Collision Repair Welding [3]	4
ACGM X3XX	Gen Ed Elective	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**14**

Semester 3: Second Session		Credits
ABDR 2381	Cooperative Education - Autobody/Collision and Repair Technology/Technician	3
	Semester Totals	**3**

Semester 4: First Session		Credits
ABDR 1481	Cooperative Education - Autobody/Collision and Repair Technology/Technician	4
	Semester Totals	**4**

Semester 4: Second Session		Credits
ABDR 2359	Structural Sectioning [4]	3
ABDR 2502	Auto Body Mechanical and Electrical Service [5]	5
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**11**
	Program Totals	**60**

Capstone Course(s):
ABDR 1481 Cooperative Education - Autobody/Collision and Repair Technology/Technician
ABDR 2359 - Structural Sectioning
ABDR 2502- Auto Body Mechanical & Electrical Service

Prerequisites
1,2 ABDR 1215
3 ABDR 1307
4,5 ABDR 1307, ABDR 1419, ABDR 2435

Auto Collision Repair Certificate 1

Semester 1		Credits
ABDR 1203	Vehicle Design and Structural Analysis	2
ABDR 1215	Vehicle Trim and Hardware	2
ABDR 1349	Automotive Plastic and Sheet Molded Compound Repair	3
ABDR 1371	Basic Paint Techniques, Equipment & Environmental Practices	3
TECM 1303	Technical Calculations	3
	Semester Totals	**13**

Semester 2		Credits
ABDR 1307	Collision Repair Welding [1]	3
ABDR 1359	Sheet Metal Fabrication I	3
ABDR 2255	Collision Repair Estimating	2
ABDR 2435	Structural Analysis and Damage Repair IV [2]	4
	Semester Totals	**12**

Semester 3		Credits
ABDR 1323	Front and Rear Wheel Alignment [3]	3
ABDR 1419	Basic Metal Repair	4
POFT 1301	Business English	3
	Semester Totals	**10**
	Program Totals	**35**

Capstone Course(s):
ABDR 1419 - Basic Metal Repair
ABDR 2435 - Structural Analysis and Damage Repair IV

Prerequisites
[1,2] ABDR 1215
[3] ABDR 2435

Auto Collision Repair Certificate 2

Semester 1		Credits
ABDR 1203	Vehicle Design and Structural Analysis	2
ABDR 1215	Vehicle Trim and Hardware	2
ABDR 1349	Automotive Plastic and Sheet Molded Compound Repair	3
ABDR 1371	Basic Paint Techniques, Equipment & Environmental Practices	3
	Semester Totals	**10**

Semester 2		Credits
ABDR 1307	Collision Repair Welding [1]	3
ABDR 2255	Collision Repair Estimating	2
ABDR 2435	Structural Analysis and Damage Repair IV [2]	4
TECM 1303	Technical Calculations	3
	Semester Totals	**12**

Semester 3		Credits
ABDR 1323	Front and Rear Wheel Alignment [3]	3
ABDR 1359	Sheet Metal Fabrication I	3
ABDR 1419	Basic Metal Repair	4
POFT 1301	Business English	3
	Semester Totals	**13**

Semester 4		Credits
ABDR 1442	Structural Analysis and Damage Repair II [4]	4
ABDR 1481	*or* Cooperative Education - Autobody/Collision and Repair Technology/Technician	
ABDR 2359	Structural Sectioning [5]	3
ABDR 2502	Auto Body Mechanical and Electrical Service [6]	5
	Semester Totals	**12**
	Program Totals	**47**

Capstone Course(s):
ABDR 1442 - Structural Analysis and Damage Repair II
or ABDR 1481 - Cooperative Education - Autobody/Collision and Repair Technology/Technician
ABDR 2359 - Structural Sectioning

Prerequisites
[1,2] ABDR 1215
[3] ABDR 2435
[4,5,6] ABDR 1323, ABDR 1419, ABDR 2435

Automation and Controls Technology

Automation and Controls Technology students learn how to automate the industrial world. Be on the cutting edge of the automation technologies to which companies are upgrading their systems. Through instruction in how to troubleshoot, calibrate, implement, service, repair and replace analog and electromechanical instruments, students learn automation basics. Add in computerized control, robotic control, robotic assembly device and computer controlled manufacturing systems like Programmable Logic Controllers (PLC's) and Human Machine Interface (HMI's) and students know how to automate and control most industrial processes. Students will receive in-depth classroom instruction, followed by real world, hands-on training in labs, to gain the solid foundations necessary in this high tech field. Training begins with basic electrical concepts, motors and motor control application. Students then advance to solid state electronic principals, electrical codes, measurements, calibration and automation control schemes. Enhance your automation skills and knowledge with extensive, industry-driven, hands-on exercises in PLC concepts, design, maintenance and troubleshooting on state of the art lab equipment that includes robotics interfacing. Be a part of our automation nation.

Automation And Controls Technology is offered at the Marshall campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Automation and Controls Technology Associate of Applied Science

Semester 1		**Credits**
AACT 1371	Electronics Fundamentals in Automation	3
AACT 1372	Automation Safety and Compliance	3
AACT 1373	Administrative Skills for Technicians	3
ACGM X3XX	Gen Ed Mathematics Elective	3
	Semester Totals	12

Semester 2		**Credits**
CETT 1341	Solid State Circuits [1]	3
ELPT 1341	Motor Control [2]	3
INTC 1341	Principles of Automatic Control	3
ENGL 1301	Composition I	3
	Semester Totals	12

Semester 3		**Credits**
AACT 2371	Automation Control Systems Interfacing I [3]	3
ELPT 2319	Programmable Logic Controllers I [4]	3
INTC 1343	Application of Industrial Automatic Controls	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	12

Semester 4		**Credits**
ELMT 2339	Advanced Programmable Logic Controllers [5]	3
ELMT 2341	Electromechanical Systems	3
AACT 2372	Automation Control Systems Interfacing II [6]	3
INTC 2339	Instrument and Control Review [7]	3
	Semester Totals	12

Semester 5		**Credits**
EAACT 2373	Factory I/O [8]	3
INTC 2330	Instrumentation Systems Troubleshooting [9]	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	12
	Program Totals	60

Capstone Course(s):
AACT 2373 - Factory I/O

Prerequisites
[1] AACT 1371
[2] AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371
[3] ELPT 1341
[4] ELPT 1341 (Prerequisite or Corequisite)
[5] ELMT 1301 or ELPT 2319
[6,8] ELPT 2319
[7,9] INTC 1343

Automotive Technology

The Automotive program at TSTC features approximately $3 million worth of the latest equipment and laboratories. The program is accredited by ASE Program Accreditation, and instructors are certified by Automotive Service Excellence and bring years of industry experience to the classroom. Students receive intensive, hands-on training, spending more than 60 percent of their time in labs, learning by doing, and the curriculum is guided by an advisory board of industry leaders, helping to ensure that the training students receive is right on target with what the industry needs.

Automotive Technology offers specializations in Master Automotive Service Technology, Maintenance and Light Repair, Toyota T-TEN, and MOPAR CAP specialty programs. For quicker entry into the industry, certificates are available.

Automotive Technology is available at the Harlingen, Sweetwater and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Automotive Technology Associate of Applied Science

Semester 1		**Credits**
AUMT 1305	Introduction to Automotive Technology	3
AUMT 1307	Automotive Electrical Systems	3
AUMT 1416	Automotive Suspension and Steering Systems	4
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	3
	Semester Totals	**13**

Semester 2		**Credits**
AUMT 1310	Automotive Brake Systems	3
AUMT 1345	Automotive Climate Control Systems [1]	3
AUMT 1419	Automotive Engine Repair [2]	4
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**16**

Semester 3		**Credits**
AUMT 2321	Automotive Electrical Diagnosis and Repair	3
AUMT 2413	Automotive Drive Train and Axles	4
AUMT 2417	Automotive Engine Performance Analysis I [3]	4
ACGM X3XX	Gen Ed Elective	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**17**

Semester 4		**Credits**
AUMT 2302	Automotive Compression Ignition Engines & Fuel Systems [4]	3
AUMT 2328	*or* Automotive Service [5]	
AUMT 2357	*or* Automotive Alternative Fuels	
AUMT 2380	*or* Cooperative Education - Automobile/Automotive Mechanics Technology/Technician [6]	
AUMT 2337	Automotive Electronics [7]	3
AUMT 2425	Automotive Automatic Transmission and Transaxle [8]	4
AUMT 2434	Automotive Engine Performance Analysis II [9]	4
	Semester Totals	**14**
	Program Totals	**60**

Capstone Course(s):
AUMT 2337 - Automotive Electronics
AUMT 2425 - Automotive Automatic Transmission and Transaxle
AUMT 2434 - Automotive Engine Performance Analysis II

Prerequisites
[1] AUMT 1201 or AUMT 1305 (Prerequisite), AUMT 1307 (Prerequisite or Corequisite)
[2] AUMT 1305
[3] AUMT 1201 or AUMT 1305, AUMT 1307 (Prerequisite), AUMT 1419 (Prerequisite or Corequisite)
[4] AUMT 2417
[5,6] AUMT 2413, AUMT 2417, AUMT 2321
[7] AUMT 2321 (Prerequisite or Corequisite)
[8,9] AUMT 2417 (Prerequisite or Corequisite), AUMT 2321

Automotive Technician Certificate 2

Semester 1		**Credits**
AUMT 1305	Introduction to Automotive Technology	3
AUMT 1307	Automotive Electrical Systems	3
AUMT 1416	Automotive Suspension and Steering Systems	4
	Semester Totals	**10**

Semester 2		Credits
AUMT 1310	Automotive Brake Systems	3
AUMT 1345	Automotive Climate Control Systems [1]	3
AUMT 1419	Automotive Engine Repair [2]	4
	Semester Totals	10

Semester 3		Credits
AUMT 2321	Automotive Electrical Diagnosis and Repair	3
AUMT 2413	Automotive Drive Train and Axles	4
AUMT 2417	Automotive Engine Performance Analysis I [3]	4
	Semester Totals	11

Semester 4		Credits
AUMT 2302	Automotive Compression Ignition Engines & Fuel Systems [4]	3
AUMT 2328	*or* Automotive Service [5]	
AUMT 2357	*or* Automotive Alternative Fuels	
AUMT 2380	*or* Cooperative Education - Automobile/Automotive Mechanics Technology/Technician [6]	
AUMT 2337	Automotive Electronics [7]	3
AUMT 2425	Automotive Automatic Transmission and Transaxle [8]	4
AUMT 2434	Automotive Engine Performance Analysis II [9]	4
	Semester Totals	14
	Program Totals	45

Capstone Course(s):
AUMT 2337 - Automotive Electronics
AUMT 2425 - Automotive Automatic Transmission and Transaxle
AUMT 2434 - Automotive Engine Performance Analysis II

Prerequisites
[1] AUMT 1201 or AUMT 1305 (Prerequisite), AUMT 1307 (Prerequisite or Corequisite)
[2] AUMT 1305
[3] AUMT 1201 or AUMT 1305, AUMT 1307 (Prerequisite), AUMT 1419 (Prerequisite or Corequisite)
[4] AUMT 2417
[5,6] AUMT 2413, AUMT 2417, AUMT 2321
[7] AUMT 2321 (Prerequisite or Corequisite)
[8,9] AUMT 2417 (Prerequisite or Corequisite), AUMT 2321

Automotive Technology Chrysler Specialization Certificate 2 - Waco only

Semester 1: First Session		Credits
AUMT 1305	Introduction to Automotive Technology	3
AUMT 1307	Automotive Electrical Systems	3
AUMT 2321	Automotive Electrical Diagnosis and Repair	3
	Semester Totals	9

Semester 1: Second Session		Credits
AUMT 1166	Practicum (or Field Experience) - Automobile/ Automotive Mechanics Technology/Technician	1
	Semester Totals	1

Semester 2: First Session		Credits
AUMT 1310	Automotive Brake Systems	3
AUMT 1416	Automotive Suspension and Steering Systems	4
AUMT 2337	Automotive Electronics [1]	3
	Semester Totals	10

Semester 2: Second Session		Credits
AUMT 1167	Practicum (or Field Experience) - Automobile/ Automotive Mechanics Technology/Technician	1
	Semester Totals	1

Semester 3: First Session		Credits
AUMT 2188	Internship (or Field Experience) - Automobile/ Automotive Mechanics Technology/Technician	1
	Semester Totals	1

Semester 3: Second Session		Credits
AUMT 1345	Automotive Climate Control Systems [2]	3
AUMT 1419	Automotive Engine Repair [3]	4
	Semester Totals	7

Semester 4: First Session		Credits
AUMT 2189	Internship (or Field Experience) - Automobile/ Automotive Mechanics Technology/Technician [4]	1
	Semester Totals	1

Semester 4: Second Session		Credits
AUMT 2417	Automotive Engine Performance Analysis I [5]	4
AUMT 2434	Automotive Engine Performance Analysis II [6]	4
	Semester Totals	8

Semester 5: First Session		Credits
AUMT 1380	Cooperative Education - Automobile/Automotive Mechanics Technology/Technician [7]	3
	Semester Totals	3

Semester 5: Second Session		Credits
AUMT 2413	Automotive Drive Train and Axles	4
AUMT 2425	Automotive Automatic Transmission and Transaxle [8]	4
	Semester Totals	8
	Program Totals	49

Capstone Course(s):
AUMT 2337 - Automotive Electronics
AUMT 2434 - Automotive Engine Performance Analysis II
AUMT 2425 - Automotive Automatic Transmission and Transaxle

Prerequisites
[1] AUMT 2321 (Prerequisite or Corequisite)
[2] AUMT 1201 or AUMT 1305 (Prerequisite), AUMT 1307 (Prerequisite or Corequisite)
[3] AUMT 1305
[4] AUMT 2417 (Prerequisite or Corequisite), AUMT 2321 (Prerequisite)
[5] AUMT 1201 or AUMT 1305, AUMT 1307 (Pre), AUMT 1419 (Prerequisite or Corequisite)
[6,8] AUMT 2417 (Prerequisite or Corequisite), AUMT 2321
[7] AUMT 1310 (Prerequisite or Corequisite)

Automotive Maintenance & Light Repair Certificate 1 - Harlingen & Sweetwater only

Semester 1		Credits
AUMT 1305	Introduction to Automotive Technology	3
AUMT 1307	Automotive Electrical Systems	3
AUMT 1416	Automotive Suspension and Steering Systems	4
	Semester Totals	10

Semester 2		Credits
AUMT 1310	Automotive Brake Systems	3
AUMT 1345	Automotive Climate Control Systems [1]	3
AUMT 1419	Automotive Engine Repair [2]	4
AUMT 2413	Automotive Drive Train and Axles	4
	Semester Totals	14

Semester 3		Credits
AUMT 1312	Basic Automotive Service	3
AUMT 1380	*or* Cooperative Education - Automobile/Automotive Mechanics Technology/Technician [3]	
AUMT 2321	Automotive Electrical Diagnosis and Repair	3
AUMT 2417	Automotive Engine Performance Analysis I [4]	4
	Semester Totals	10
	Program Totals	34

Capstone Course(s):
AUMT 1312 - Basic Automotive Service
or AUMT 1380 - Cooperative Education - Automobile/Automotive Mechanics Technology/Technician

Prerequisites
[1] AUMT 1201 or AUMT 1305 (Prerequisite), AUMT 1307 (Prerequisite or Corequisite)
[2] AUMT 1305
[3] AUMT 1310 (Prerequisite or Corequisite)
[4] AUMT 1201 or AUMT 1305, AUMT 1307 (Prerequisite), AUMT 1419 (Prerequisite or Corequisite)

Automotive Technology Toyota T-TEN Specialization Certificate 2 - Waco only

Semester 1: First Session		Credits
AUMT 1305	Introduction to Automotive Technology	3
AUMT 1307	Automotive Electrical Systems	3
AUMT 2321	Automotive Electrical Diagnosis and Repair	3
	Semester Totals	9

Semester 1: Second Session		Credits
AUMT 1166	Practicum (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician	1
	Semester Totals	1

Semester 2: First Session		Credits
AUMT 1310	Automotive Brake Systems	3
AUMT 1416	Automotive Suspension and Steering Systems	4
AUMT 2337	Automotive Electronics [1]	3
	Semester Totals	10

Semester 2: Second Session		Credits
AUMT 1167	Practicum (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician	1
	Semester Totals	1

Semester 3: First Session		Credits
AUMT 1345	Automotive Climate Control Systems [2]	3
AUMT 2413	Automotive Drive Train and Axles	4
	Semester Totals	7

Semester 3: Second Session		Credits
AUMT 2188	Internship (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician	1
	Semester Totals	1

Semester 4: First Session		Credits
AUMT 2189	Internship (or Field Experience) - Automobile/ Automotive Mechanics Technology/Technician [3]	1
	Semester Totals	1

Semester 4: Second Session		Credits
AUMT 1419	Automotive Engine Repair [4]	4
AUMT 2417	Automotive Engine Performance Analysis I [5]	4
AUMT 2434	Automotive Engine Performance Analysis II [6]	4
	Semester Totals	12

Semester 5: First Session (5 weeks)		Credits
AUMT 1280	Cooperative Education - Automobile/Automotive Mechanics Technology/Technician	2
	Semester Totals	2

Semester 5: Second Session (9 weeks)		Credits
AUMT 2425	Automotive Automatic Transmission and Transaxle [7]	4
AUMT 2307	Hybrid Systems Diagnostics [8]	3
	Semester Totals	7
	Program Totals	51

Captsone Course(s):
AUMT 2337 - Automotive Electronics
AUMT 2434 - Automotive Engine Performance Analysis II
AUMT 2425 - Automotive Automatic Transmission and Transaxle e

Prerequisites
[1] AUMT 2321 (Prerequisite or Corequisite)
[2] AUMT 1201 or AUMT 1305 (Prerequisite), AUMT 1307 (Prerequisite or Corequisite)
[3] AUMT 2417 (Prerequisite or Corequisite), AUMT 2321 (Prerequisite)
[4] AUMT 1305
[5] AUMT 1201 or AUMT 1305, AUMT 1307 (Prerequisite), AUMT 1419 (Prerequisite or Corequisite)
[6,7] AUMT 2417 (Prerequisite or Corequisite), AUMT 2321
[8] AUMT 2413, AUMT 2425 (Corequisite))

Automotive Tesla Start Technician Certificate
Advanced Technical Certificate

Semester 1		Credits
AUMT 1471	Introduction and Theory of Tesla Vehicles	4
AUMT 1472	Automotive Electrical, Chassis, Driver Assist Systems	4
AUMT 1473	Automotive Electronics Theory	4
AUMT 1474	Infotainment Systems And Service Center Skills	4
	Total	16

Captsone Course(s):
AUMT 1473 - Automotive Electronics Theory

Basic Automotive OSA
Occupational Skills Award - Waco, Hybrid only

Semester 1		Credits
AUMT 1305	Introduction to Automotive	3
AUMT 1310	Brakes	3
AUMT 1416	Suspensions & Steering	4
	Total	10

Avionics Technology

Avionics is one of the most exciting and challenging careers in the aviation industry. Avionics technicians are responsible for installing, maintaining and repairing navigational and communication radios, transponders, digital audio systems, flight management computers and aircraft autopilot systems on all sizes of aircraft. TSTC's Avionics program helps prepare students for the Federal Communication Commission's General Radio-Telephone Operator's License (FCC GROL) and the Aircraft Electronic Technician certification from the National Center for Aerospace and Transportation Technologies (NCATT AET). The curriculum includes college-transferable courses in science, mathematics and English required for the Associate of Applied Science degree, which prepares you to meet the expanding responsibilities of today's avionics technician.

Avionics is available at the Waco campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Avionics Technology
Associate of Applied Science

Semester 1		**Credits**
AVNC 1303	Introduction to Aviation Electronic Systems	3
AVNC 1343	Aviation Electrical and Electronic Systems Installation	3
CETT 1302	Electricity Principles	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	**12**

Semester 2		**Credits**
AVNC 1353	Operational Testing of Aviation Electronic Systems	3
AVNC 2308	Aviation Electrical and Electronics Systems Installation II	3
CETT 1325	Digital Fundamentals [1]	3
MATH 1332	Contemporary Mathematics (Quantitative Reasoning)	3
MATH 1314	*or* College Algebra (3 SCH version)	
MATH 1316	*or* Plane Trigonometry	
	Semester Totals	**12**

Semester 3		**Credits**
AVNC 1306	FAA Regulations for Avionics Certified Repair Station	3
AVNC 1391	Installation & Operational Testing of Avionics & Pitot-Static Systems	3
CSIR 2301	Communication Electronics Components [2]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**12**

Semester 4		**Credits**
AVNC 2304	Foundations in Avionics Equipment Component Level Repairs	3
AVNC 2357	Aviation Communication Component Level Repair	3
CSIR 1355	Industry Certifications [3]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**12**

Semester 5		**Credits**
AVNC 2345	Aviation Navigational Equipment Component Level Repair	3
AVNC 2350	Aviation Pulsed RF Equipment Component Level Repair	3
AVNC 2355	Advanced Aviation Electronics Troubleshooting	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**12**
	Program Totals	**60**

Capstone Course(s):
AVNC 2355 - Advanced Aviation Electronics Troubleshooting

Prerequisites
[1] CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
[2,3] IEIR 1371 or CETT 1302

Biology

The Biology department offers course prerequisites for various nursing programs and other allied health programs. Biology faculty serve as student advisors for the Biology associate degree and can direct students to program advisors for the various allied health programs. Since, with a few exceptions, no particular course sequence needs to be followed and there is a varied selection of appropriate electives that may be chosen, students should consult with the appropriate advisor within the Biology department.

An Associate of Science degree in Biology is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Biology
Associate of Science

Semester 1		**Credits**
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
ACGM X4XX	BIO.AS - Approved Elective	4
SPCH X3XX	Gen Ed Speech Elective	3
	Semester Totals	**13**

Semester 2		**Credits**
ENGL 1302	Composition II [1]	3
HIST 1302	United States History II	3
MATH 1314	College Algebra (3 SCH version)	3
ACGM X4XX	BIO.AS - Approved Elective	4
	Semester Totals	**13**

Semester 3		**Credits**
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
ACGM X3XX	Creative Arts Elective	3
ACGM X4XX	BIO.AS - Approved Elective	4
ACGM X4XX	BIO.AS - Approved Elective	4
	Semester Totals	**14**

Semester 4		**Credits**
GOVT 2305	Federal Government (Federal constitution & topics)	3
ACGM X3XX	Language, Philosophy and Culture Elective	3
ACGM X3XX	BIO.AS - Approved Elective	3
ACGM X4XX	BIO.AS - Approved Elective	4
	Semester Totals	**13**

Semester 5		**Credits**
GOVT 2306	Texas Government (Texas constitution & topics)	3
ACGM X4XX	BIO.AS - Approved Elective	4
	Semester Totals	**7**
	Program Totals	**60**

Capstone Course(s):
BIOL 2320 - Microbiology for Non-Science Majors (Lec and Lab)
BIOL 2120 - Microbiology for Non-Science Majors (Lec and Lab)

Prerequisites
[1] ENGL 1301

BIO.AS - Approved Elective List
(24 credits)

BIOL 1106, 1306	Biology for Science Majors I (Lec and Lab) [2]
BIOL 1107, 1307	Biology for Science Majors II (Lec and Lab) [3]
BIOL 1108, 1308	Biology for Non-Science Majors I (Lec and Lab)
BIOL 1109, 1309	Biology for Non-Science Majors II (Lec and Lab)
BIOL 1111, 1311	General Botany (Lec and Lab) [4]
BIOL 1113, 1313	General Zoology (Lec and Lab) [5]
BIOL 2101, 2301	Anatomy & Physiology I (Lec and Lab)
BIOL 2102, 2302	Anatomy & Physiology II (Lec and Lab)
BIOL 2116, 2316	Genetics (Lec and Lab)
BIOL 2106, 2306	Environmental Biology (Lec and Lab) [6]
BIOL 2121, 2321	Microbiology for Science Majors (Lec and Lab) [7]
BIOL 2120, 2320	Microbiology for Non-Science Majors (Lec and Lab)
CHEM 1111, 1311	General Chemistry I (Lec and Lab) [8]
CHEM 1112, 1312	General Chemistry II (Lec and Lab) [9]
CHEM 1105, 1305	Introductory Chemistry
CHEM 2123, 2323	Organic Chemistry [10]
PHYS 1101, 1301	College Physics I (Lec and Lab) [11]
PHYS 1102, 1302	College Physics II (Lec and Lab) [12]
PHYS 1115, 1315	Physical Science I (Lec and Lab)
PHYS 1117, 1317	Physical Science II (Lec and Lab)

(3 credits)

BIOL 1322	Nutrition and Diet Therapy
MATH 1342	Statistics
MATH 1316	Trigonometry
MATH 2312	Pre-Calculus [13]
PSYC 2314	Lifespan Growth and Development
PSYC 2301	General Psychology
ANTH 2346	General Anthropology
SOCI 1301	Introduction to Sociology
GEOG 1303	World Regional Geography
HIST 2321	World Civilizations I

Prerequisites

[2] BIOL 1106 - BIOL 1306 (Prerequisite or Corequisite),
BIOL 1306 - BIOL 1106 (Recommended Corequisite) or MATH 1314 or MATH 1414 (Recommended Prerequisite) or Concurrent enrollment in higher-level mathematics

[3] BIOL 1107 - BIOL 1307 (Prerequisite or Corequisite)
BIOL 1307 - BIOL 1107 (Recommended Corequisite), MATH 1314 or MATH 1414 (Recommended Prerequisite) or Concurrent enrollment in higher-level mathematics

[4] BIOL 1111 - BIOL 1311 (Prerequisite or Corequisite)
BIOL 1311 - BIOL 1111 (Recommended Corequisite), MATH 1314 or MATH 1414 (Recommended Prerequisite) or Concurrent enrollment in higher-level mathematics

[5] BIOL 1113 - BIOL 1313 (Prerequisite or Corequisite)
BIOL 1313 - BIOL 1113 (Recommended Corequisite), MATH 1314 or MATH 1414 (Recommended Prerequisite) or Concurrent enrollment in higher-level mathematics

[6] BIOL 2106 - BIOL 2306 (Prerequisite or Corequisite)
BIOL 2306 - BIOL 2106 (Recommended Corequisite), MATH 1314 or MATH 1414 (Recommended Prerequisite) or Concurrent enrollment in higher-level mathematics

[7] BIOL 2121 - BIOL 2321 (Prerequisite or Corequisite)
BIOL 2321 - BIOL 2121 (Recommended Corequisite), CHEM 1311/1111 or 1411 plus 1 of following biology sequences for majors:
(BIOL 1306/1106 or 1406), (BIOL 1307/1107 or 1407)
or (BIOL 1311/1111 or 1411, BIOL 1313/1113 or 1413) (Prerequisite)

[8] CHEM 1111 - CHEM 1311 (Corequisite)
CHEM 1311 - CHEM 1111 (Corequisite), MATH 1314 or 1414 or equivalent academic preparation (Prerequisite)

[9] CHEM 1112 - CHEM 1312 (Corequisite)
CHEM 1312 - CHEM 1112 (Corequisite), CHEM 1311 & CHEM 1111, or CHEM 1411 or CHEM 1309 & CHEM 1109 or CHEM 1409 (Prerequisite)

[10] CHEM 2123 - CHEM 2323 (Corequisite)
CHEM 2323 - CHEM 2123 (Corequisite), CHEM 1312/1112 or CHEM 1412 (Prerequisite)

[11] PHYS 1101 - PHYS 1301 (Corequisite)
PHYS 1301 - PHYS 1101 (Corequisite), MATH 1314 or 1414 AND MATH 1316 or MATH 2312 or 2412 (Prerequisite)

[12] PHYS 1102 - PHYS 1302 (Prerequisite)
PHYS 1302 - PHYS 1102 (Corequisite), PHYS 1301/1101 or PHYS 1401 (Prerequisite)

[13] MATH 1314 or 1414 (Prerequisite)

Biomedical Equipment Technology

First-rate equipment, experienced staff and an advisory board that comprises top industry names are just a few of the benefits available at TSTC. Biomedical equipment technicians work on equipment such as defibrillators, heart monitors, medical imaging equipment (X-rays, CAT scanners and ultrasound equipment), voice-controlled operating tables and electric wheelchairs, so the industry needs sharp, professional technicians that can inspect, calibrate, maintain, troubleshoot and repair this critical medical equipment. Students in the program gain hands-on experience working with everything from the simplest suction pump to the most sophisticated laboratory equipment, cardiac monitors, and X-ray and ultrasound equipment.

Biomedical Equipment Technology is available at the Harlingen and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Biomedical Equipment Technology Associate of Applied Science

Semester 1		**Credits**
BIOM 1101	Biomedical Equipment Technology	1
BIOM 1270	Shop Skills for Biomedical Equipment Technicians	2
BIOM 1373	Medical Software and Hardware	3
CETT 1303	DC Circuits	3
ACGM X3XX	Gen Ed Mathematics Elective	3
	Semester Totals	12

Semester 2		**Credits**
BIOM 1309	Applied Biomedical Equipment Technology	3
BIOM 1315	Medical Equipment Networks [1]	3
ITNW 1325	*or* Fundamentals of Networking Technologies	
CETT 1305	AC Circuits [2]	3
ENGL 1301	Composition I	3
ACGM X3XX	Gen Ed Natural Science Elective	3
	Semester Totals	**15**

Semester 3		**Credits**
BIOM 1341	Medical Circuits/Troubleshooting [3]	3
BIOM 2301	Safety in Health Care Facilities [4]	3
BIOM 2311	General Medical Equipment I [5]	3
BIOM 2319	Fundamentals of X-Ray and Medical Imaging Systems [6]	3
CETT 1325	Digital Fundamentals [7]	3
	Semester Totals	**15**

Semester 4		**Credits**
BIOM 2215	Physiological Instruments I [8]	2
BIOM 2231	Biomedical Clinical Instrumentation	2
BIOM 2239	Physiological Instruments II [9]	2
BIOM 1291	*or* Special Topics in Biomedical Engineering-Related Technology/Technician	
BIOM 1250	*or* Diagnostic Ultrasound Imaging System	
BIOM 2343	General Medical Equipment II [10]	3
BIOM 1355	*or* Medical Electronic Applications [11]	
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**12**

Semester 5		**Credits**
BIOM 2388	Internship - Biomedical Technology/Technician	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	6
	Program Totals	**60**

Capstone Course(s):
BIOM 2388 Internship - Biomedical Technology/Technician

Prerequisites
[1] BIOM 1373
[2] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
[3,4,5,6] CETT 1303, CETT 1305
[7] CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
[8,10,11] BIOM 2301
[9] BIOM 2301 (Prerequisite), BIOM 2215 (Corequisite)

Medical Imaging Systems Technology - Specialization
Associate of Applied Science - Waco only

Semester 1		Credits
BIOM 1101	Biomedical Equipment Technology	1
BIOM 1270	Shop Skills for Biomedical Equipment Technicians	2
BIOM 1373	Medical Software and Hardware	3
CETT 1303	DC Circuits	3
ACGM X3XX	Gen Ed Mathematics Elective	3
	Semester Totals	**12**

Semester 2		Credits
BIOM 1309	Applied Biomedical Equipment Technology	3
BIOM 1315	Medical Equipment Networks [1]	3
ITNW 1325	*or* Fundamentals of Networking Technologies	
CETT 1305	AC Circuits [2]	3
ENGL 1301	Composition I	3
ACGM X3XX	Gen Ed Natural Science Elective	3
	Semester Totals	**15**

Semester 3		Credits
BIOM 1341	Medical Circuits/Troubleshooting [3]	3
BIOM 2301	Safety in Health Care Facilities [4]	3
BIOM 2319	Fundamentals of X-Ray and Medical Imaging Systems [5]	3
CETT 1325	Digital Fundamentals [6]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**15**

Semester 4		Credits
BIOM 1350	Diagnostic Ultrasound Imaging System [7]	3
BIOM 2333	Digital Radiography [8]	3
BIOM 2345	Advanced Imaging Systems [9]	3
BIOM 2347	RF/X-Ray System [10]	3
	Semester Totals	**12**

Semester 5		Credits
BIOM 2388	Internship - Biomedical Technology/Technician	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**6**
	Program Totals	**60**

Capstone Course(s):
BIOM 2388 - Internship - Biomedical Technology/Technician

Prerequisites
[1] BIOM 1373
[2] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
[3,4,5,7] CETT 1303, CETT 1305
[6] CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
[8,9,10] BIOM 2319

Building Construction Technology

TSTC's Building Construction program offers several options that can help you specialize, brush up your skills or move you on a faster track to build a career in this field. Students in this technology get crucial, hands-on experience using the tools that they will encounter when entering the world of construction, backed by a knowledgeable staff and advisors in key positions within the industry.

Building Construction Technology is available at the Harlingen and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Building Construction Technology Associate of Applied Science

Semester 1		**Credits**
CNBT 1300	Residential and Light Commercial Blueprint Reading	3
CNBT 1316	Construction Technology I	3
OSHT 1305	OSHA Regulations - Construction Industry	3
CNBT 1346	Construction Estimating I	3
	Semester Totals	**12**

Semester 2		**Credits**
CNBT 1313	Concrete I	3
CNBT 1315	Field Engineering I	3
CNBT 1342	Building Codes and Inspections	3
CNBT 1450	Construction Technology II [1]	4
	Semester Totals	**13**

Semester 3		**Credits**
CNBT 1302	Mechanical, Plumbing & Electrical Systems in Construction I	3
CNBT 1453	Construction Technology III [2]	4
CNBT 2342	Construction Management I	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**13**

Semester 4		**Credits**
CNBT 2337	Construction Estimating II	3
CNBT 1359	*or* Project Scheduling	
CNBT 2439	Construction Technology IV [3]	4
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	**13**

Semester 5		**Credits**
CNBT 2344	Construction Management II	3
ACGM X3XX	Gen Ed Elective	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**9**
	Program Totals	**60**

Capstone Course(s): CNBT 2344 - Construction Management II

Prerequisites
[1,2,3] CNBT 1316

Building Construction Craftsman Certificate 1

Semester 1		**Credits**
CNBT 1300	Residential and Light Commercial Blueprint Reading	3
CNBT 1316	Construction Technology I	3
OSHT 1305	OSHA Regulations - Construction Industry	3
CNBT 1346	Construction Estimating I	3
	Semester Totals	**12**

Semester 2		**Credits**
CNBT 1313	Concrete I	3
CNBT 1315	Field Engineering I	3
CNBT 1450	Construction Technology II [1]	4
CNBT 1453	Construction Technology III [2]	4
	Semester Totals	**14**

Semester 3		**Credits**
CNBT 1680	Cooperative Education - Construction Engineering Technology/Technician	6
CNBT 1302	*or* Mechanical, Plumbing & Electrical Systems in Construction I	3
CNBT 2439	*and* Construction Technology IV [3]	4
	Semester Totals	**7**
	Program Totals	33

Capstone Course(s):
CNBT 1680 - Cooperative Education - Construction Engineering Technology/Technician
or CNBT 1302 - Mechanical, Plumbing & Electrical Systems in Construction I
and CNBT 2439 - Construction Technology IV

Prerequisites
[1,2,3] CNBT 1316

Business Management Technology

Every business needs professionals to manage an office, administer payroll, balance books and hire employees to run a business. Our students receive instruction needed to succeed in a career in office management and accounting. Skills you will gain include: office software use, management techniques, business principles, accounting procedures, leadership methods and communication tools. This will prepare you to be a professional in any organization and give you the skills to be a successful business owner.

Business Management Technology is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

Business Management Technology is a Performance-Based Education (PBE) program.

First-Year Seminar Requirement
Students are required to enroll in the First Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First Year Seminar course.

Business Management Technology Associate of Applied Science

Semester 1		**Credits**
BUSG 1304	Financial Literacy	3
POFI 2301	Word Processing	3
ACGM X3XX	Gen Ed Speech Elective	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	12

Semester 2		**Credits**
ACNT 1325	Principles of Accounting I	3
POFI 1349	Spreadsheets	3
BMGT 1327	Principles of Management	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	12

Semester 3		**Credits**
ACNT 1329	Payroll & Business Tax Accounting	3
ITSW 1310	Introduction to Presentation Graphics Software	3
MRKG 1301	Customer Relationship Management	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	12

Semester 4		**Credits**
ACNT 1311	Introduction to Computerized Accounting	3
BUSG 1302	E-Business Management	3
ITSW 1307	Introduction to Database	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	12

Semester 5		**Credits**
BMGT 1309	Information and Project Management	3
BUSG 1315	Small Business Operations	3
POFT 2380	*or* Cooperative Education - Administrative Assistant and Secretarial Science, General	
HRPO 2301	Human Resources Management	3
POFT 2312	Business Correspondence & Communication	3
	Semester Totals	12
	Program Totals	60

Capstone Course(s):

BUSG 1315 - Small Business Operations

Business Management Technology Certificate 2

Semester 1		**Credits**
BMGT 1327	Principles of Management	3
POFI 1349	Spreadsheets	3
POFI 2301	Word Processing	3
BUSG 1304	Financial Literacy	3
	Semester Totals	12

Semester 2		**Credits**
BUSG 1302	E-Business Management	3
ITSW 1310	Introduction to Presentation Graphics Software	3
ACNT 1325	Principles of Accounting I	3
MRKG 1301	Customer Relationship Management	3
	Semester Totals	12

Semester 3		**Credits**
ACNT 1329	Payroll & Business Tax Accounting	3
BMGT 1309	Information and Project Management	3
ITSW 1307	Introduction to Database	3
HRPO 2301	Human Resources Management	3
	Semester Totals	12

Semester 4		**Credits**
ACNT 1311	Introduction to Computerized Accounting	3
POFT 2312	Business Correspondence & Communication	3
BUSG 1315	Small Business Operations	3
	Semester Totals	9
	Program Totals	45

Capstone Course(s):
BUSG 1315 Small Business Operations

Basic Accounting/Bookkeeping OSA Occupational Skills Award

Semester 1		**Credits**
POFI 1349	Spreadsheets	3
ACNT 1325	Principles of Accounting	3
ACNT 1311	Introduction to Computerized Accounting	3
	Total	9

Chemical Dependency Counseling

The Chemical Dependency Counseling program at TSTC facilitates the development of the skills necessary for success in the chemical dependency counseling services industry. The program focuses on clinical evaluations, treatment planning, referrals, service coordination, individual and group counseling, documentation, professional and ethical responsibilities, and client, family and community education. With this knowledge base, students will be prepared to work as counselor interns as they strive toward licensure requirements. Graduates of the program find work opportunities through the criminal justice system, substance abuse treatment centers, or hospitals.

A certificate is available for individuals who have a degree in the human services field and want expertise in alcohol and drug counseling.

Chemical Dependency Counseling is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Chemical Dependency Counseling Associate of Applied Science

Semester 1		**Credits**
DAAC 1319	Substance-Related and Addictive Disorders	3
PSYT 1313	Psychology of Personal Adjustment	3
PSYC 2301	General Psychology	3
ACGM X3XX	Gen Ed Elective	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	15

Semester 2		**Credits**
DAAC 1309	Assessment of Substance-Related and Addictive Disorders	3
DAAC 1311	Counseling Theories	3
DAAC 2306	Substance Abuse Prevention I	3
DAAC 2307	Addicted Family Intervention	3
DAAC 2343	Current Issues	3
	Semester Totals	15

Semester 3		**Credits**
DAAC 1304	Pharmacology of Addiction	3
DAAC 1305	Co-Occurring Disorders	3
DAAC 1317	Basic Counseling Skills	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	12

Semester 4		**Credits**
CJSA 1325	Criminology	3
DAAC 2301	Therapeutic Communities in a Criminal Justice Setting	3
DAAC 2341	Counseling Alcohol and Other Drug Addictions	3
DAAC 2354	Dynamics of Group Counseling	3
	Semester Totals	12

Semester 5		**Credits**
DAAC 2366	Practicum (or Field Experience) - Substance Abuse/Addiction Counseling	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	6
	Program Totals	60

Capstone Course(s):
DAAC 2366 - Practicum (or Field Experience) - Substance Abuse/Addiction Counseling

Chemical Dependency Counseling Certificate 1

Semester 1		**Credits**
DAAC 1319	Substance-Related and Addictive Disorders	3
DAAC 2301	Therapeutic Communities in a Criminal Justice Setting	3
DAAC 2307	*or* Addicted Family Intervention	
DAAC 2341	Counseling Alcohol and Other Drug Addictions	3
DAAC 2354	Dynamics of Group Counseling	3
DAAC 1317	*or* Basic Counseling Skills	
	Semester Totals	12

Semester 2		**Credits**
DAAC 1309	Assessment of Substance-Related and Addictive Disorders	3
DAAC 1311	Counseling Theories	3
CJSA 1325	*or* Criminology	
DAAC 2343	Current Issues	3
DAAC 2366	Practicum (or Field Experience) - Substance Abuse/Addiction Counseling	3
	Semester Totals	12
	Program Totals	24

Capstone Course(s):
DAAC 2366 - Practicum (or Field Experience) - Substance Abuse/Addiction Counseling

Computer Networking & Systems Administration

The Computer Networking & Systems Administration program produces dynamic, highly skilled IT professionals that today's industry demands. They have the expertise to build, secure and manage IT systems in the cloud and on-premise. They are in charge of keeping the infrastructure and services operational to ensure that everyone and everything stays connected.

In this program, you will engage with real equipment through hands-on labs and other interactive assessments designed to build knowledge and skills that are critical for success in high-demand fields. You will have the opportunity to learn how to configure and troubleshoot technology that is essential to any business, such as computers, switches, routers, servers and firewalls. All this will be through multiple pathway options and with many courses focused on industry certifications from Cisco, Amazon and CompTIA. The program is an official Cisco Network Academy and Amazon Web Services (AWS) Academy.

The Advanced Technical Certificate is focused on cloud computing and offers specialized training in topics such as DevOps, infrastructure development/automation, programming, database management, security, configuration management, and more. Students will leave with extensive knowledge of cloud computing.

Computer Networking & Systems Administration is a Performance-Based Education (PBE) program.

Computer Networking & Systems Administration is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First Year Seminar course

Computer Networking & Systems Administration
Associate of Applied Science Degree

Semester 1		**Credits**
ITNW 1308	Implementing and Supporting Client Operating Systems	3
ITNW 1358	Network+	3
ITSC 1325	Personal Computer Hardware	3
ACGM X3XX	Gen Ed Mathematics Elective	3
	Semester Totals	**12**

Semester 2		**Credits**
ITCC 1314	CCNA 1: Introduction to Networks	3
ITNW 1345	Implementing Network Directory Services	3
ITSE 1329	Programming Logic and Design	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	**12**

Semester 3		**Credits**
ITCC 1344	CCNA 2: Switching, Routing, and Wireless Essentials [1]	3
ITNW 1313	Computer Virtualization	3
ITSC 1316	Linux Installation and Configuration [2]	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**12**

Semester 4		**Credits**
ITCC 2320	CCNA 3: Enterprise Networking, Security, and Automation [3]	3
ITNW 2354	Internet/Intranet Server [4]	3
ITSY 1342	Information Technology Security [5]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**12**

Semester 5		**Credits**
ITNW 1309	Fundamentals of Cloud Computing	3
ITCC 2343	*or* Network Security	
ITNW 2352	Administering SQL Server	3
ITSC 2370	Final Project-Systems Administration	3
ITSC 2386	*or* Internship - Computer and Information Sciences, General	
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**12**
	Program Totals	**60**

Capstone Course(s):
ITSC 2370 - Final Project-Systems Administration
or ITSC 2386 - Internship - Computer and Information Sciences, General

Prerequisites
[1] ITCC 1314
[2] ITNW 1358 or ITCC 1314
[3] ITCC 1344
[4] ITNW 1345, ITSC 1316
[5] ITNW 1345 or ITNW 1354

Cloud Computing
Advanced Technical Certificate

Semester 1		Credits
ITNW 1436	Cloud Deployment & Infrastructure Management	4
ITSC 2425	Advanced Linux [1]	4
	Semester Totals	8

Semester 2		Credits
ITNW 2427	Advanced Cloud Concepts [2]	4
ITNW 2429	Application Development for the Cloud [3]	4
	Semester Totals	8
	Program Totals	16

Prerequisites
[1] ITSC 1316
[2,3] ITNW 1436

Basic Computer Networking & Systems Administration OSA
Occupational Skills Award

Semester 1		Credits
ITCC 1314	CCNA 1: Introduction to Networks	3
ITCC 1344	CCNA 2: Switching, Routing, and Wireless Essentials	3
ITCC 2320	CCNA 3: Enterprise Networking, Security, and Automation	3
	Total	9

Computer Programming Technology

Some of the hottest careers in the job market these days are within the Information Technology sector. That's why Computer Programming Technology at TSTC makes sense for a great career choice. Students in this program get a practical, hands-on education that teaches them the technical skills required in the IT field. In addition to technical skills, the student's training centers on the development of logic, problem-solving and soft skills. CPT provides specialized training in business application, mobile development, and database functionality that focuses on career expectations leading to a variety of positions, from program analyst and database administrator to consultant, systems analyst and computer engineer.

Computer Programming Technology is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Computer Programming Technology Associate of Applied Science

Semester 1		**Credits**
ITSE 1302	Computer Programming	3
ITSE 1311	Beginning Web Programming	3
ITSE 2309	Database Programming	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	12

Semester 2		**Credits**
ITSE 2302	Intermediate Web Programming [1]	3
ITSE 1330	Introduction to C# Programming	3
ITSE 2333	Implementing a Database on Microsoft SQL Server [2]	3
ACGM X3XX	Gen Ed Mathematics Elective	3
	Semester Totals	12

Semester 3		**Credits**
ITSE 1350	System Analysis and Design	3
ITSE 1307	Introduction to C++ Programming	3
ITSE 2353	Advanced C# Programming [3]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	12

Semester 4		**Credits**
ITSE 2331	Advanced C++ Programming [4]	3
ITSE 1333	Mobile Applications Development [5]	3
ITSE 2317	Java Programming	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	12

Semester 5		**Credits**
INEW 2332	Comprehensive Software Project: Coding, Testing, and Implementation	3
ITSE 2380	*or* Cooperative Education - Computer Programming/Programmer, General	
ITSE 2359	Advanced Computer Programming [6]	3
ITSE 2310	iOS Application Programming	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	12

	Program Totals	60

Capstone Course(s):
INEW 2332 - Comprehensive Software Project: Coding, Testing, and Implementation
or ITSE 2380 - Cooperative Education - Computer Programming/Programmer, General

Prerequisites
[1] ITSE 1311
[2] ITSE 2309
[3] ITSE 1330, ITSE 2309
[4] ITSE 1307
[5] ITSE 1330
[6] ITSE 2353, ITSE 2309, ITSE 1332

Computer Science

The computer science degree is planned for students who plan to transfer to a four-year degree program in computer science, or for students in mathematics, science, or technical areas who wish to obtain skills in computer software development for scientific and technical applications. The courses in the program provide the academic core of the theoretical concepts of computer science combined with the fundamentals of structured design and development techniques for computer programming.

As an Academic program, students are expected to demonstrate college-level skills in mathematics, English and fundamental programming.

Upon completion of this program a student will be able to:

- Demonstrate proficiency in a high level programming language.
- Apply logical skills and mathematical concepts to analyze, design and implement computer algorithms and programs.
- Demonstrate proficiency in current design techniques, I.e. Object Oriented Design.

Computer Science is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Computer Science
Associate of Science

Semester 1		**Credits**
COSC 1336	Programming Fundamentals I	3
ENGL 1301	Composition I	3
MATH 2312	Pre-Calculus Math (3 SCH version) [1]	3
MATH 1316	*or* Plane Trignometry	
ACGM X3XX	Creative Arts Elective	3
	Semester Totals	**12**

Semester 2		**Credits**
COSC 1337	Programming Fundamentals II [2]	3
ENGL 1302	Composition II [3]	3
GOVT 2305	Federal Government (Federal constitution & topics)	3
MATH 2413	Calculus I (4 SCH version) [4]	4
	Semester Totals	**13**

Semester 3		**Credits**
COSC 2325	Computer Organization [5]	3
GOVT 2306	Texas Government (Texas constitution & topics)	3
ACGM X3XX	Component Area Option A*	3
ACGM X3XX	Language, Philosophy and Culture Elective	3
	Semester Totals	**12**

Semester 4		**Credits**
COSC 2336	Programming Fundamentals III [6]	3
HIST 1301	United States History I	3
PHYS 1301	College Physics I (lecture) [7]	3
PHYS 1101	College Physics Laboratory I [8]	1
	Semester Totals	**10**

Semester 5		**Credits**
HIST 1302	United States History II	3
PHYS 1302	College Physics II (lecture) [9]	3
PHYS 1102	College Physics Lab II [10]	1
SPCH X3XX	Gen Ed Speech Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**13**

	Program Totals	**60**

Capstone Course(s):
COSC 2336 - Programming Fundamentals III

Prerequisites
[1] MATH 1314
[2,6] COSC 1336
[3] ENGL 1301
[4] MATH 1316 or MATH 2312 or MATH 2412
[6] COSC 1337
[7] MATH 1314, MATH 1316 or MATH 2312 or MATH 2412 (Prerequisite), PHYS 1101 (Corequisite)
[8] PHYS 1301 (Corequisite)
[9] PHYS 1301, PHYS 1101 or PHYS 1401 (Prerequisite), PHYS 1102 (Corequisite)
[10] PHYS 1302 (Corequisite)

***Component Area Option A**

ENGL 2321	British Literature (single-semester course)
ENGL 2326	American Literature (single-semester course)
ENGL 2331	World Literature (single-semester course)
PSYC 2314	Lifespan Growth & Development

Culinary Arts

As a Culinary Arts student at TSTC, you will be trained in a multitude of hands-on skill sets and talents. The chef-instructors of TSTC Culinary are all highly trained professional chefs with years of industry experience and knowledge that will guide you in your professional journey while in school and out in your career. The TSTC Culinary Arts program is based in classical cooking techniques, food preparation, meat and seafood fabrication, baking, pastry, American regional and international cuisines, dining room services, purchasing and cost analysis. It culminates with the associate degree capstone course that allow you to run the kitchen with your cuisine. The Culinary Arts department at TSTC also teaches food-related topics, including nutrition, sanitation and safety, food service equipment, supervision and culinary math. For quicker entry into the industry, Culinary Assistant, Culinary Specialist and Culinarian certificates are available.

Culinary Arts is available at the East Williamson County, Harlingen and Waco campuses through a hybrid format using online learning for content delivery and face-to-face lab training.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Culinary Arts
Associate of Applied Science

Semester 1		**Credits**
CCHEF 1205	Sanitation and Safety	2
IFWA 1205	Food Service Equipment and Planning	2
IFWA 1217	Food Production and Planning	2
IFWA 1218	Nutrition for the Food Service Professional	2
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**11**

Semester 2		**Credits**
IFWA 1401	Food Preparation I [1]	4
PSTR 1301	Fundamentals of Baking [2]	3
RSTO 1304	Dining Room Service [3]	3
RSTO 1380	*or* Cooperative Education - Restaurant, Culinary, and Catering Management/Manager	
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**13**

Semester 3		**Credits**
CHEF 1340	Meat Preparation and Cooking [4]	3
IFWA 1427	Food Preparation II [5]	4
PSTR 2431	Advanced Pastry Shop [6]	4
ENGL 2311	Technical & Business Writing	3
	Semester Totals	**14**

Semester 4		**Credits**
CHEF 1441	American Regional Cuisine [7]	4
CHEF 1445	International Cuisine [8]	4
RSTO 1313	Hospitality Supervision	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**14**

Semester 5		**Credits**
RSTO 2505	Management of Food Production and Service [9]	5
RSTO 1680	*or* Cooperative Education - Restaurant, Culinary, and Catering Management/Manager	
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	**8**
	Program Totals	**60**

Capstone Course(s):
RSTO 2505 - Management of Food Production and Service
or RSTO 1680 - Cooperative Education - Restaurant, Culinary, and Catering Management/Manager

Prerequisites
[1,2,3] CHEF 1205, IFWA 1205, IFWA 1217
[4,5] IFWA 1401
[6] PSTR 1301
[7,8] IFWA 1427, PSTR 2431
[9] CHEF 1441, CHEF 1445, PSTR 2431, RSTO 1313 (Pre or Co)

Culinarian
Certificate 2

Semester 1		**Credits**
CHEF 1205	Sanitation and Safety	2
IFWA 1205	Food Service Equipment and Planning	2
IFWA 1217	Food Production and Planning	2
IFWA 1218	Nutrition for the Food Service Professional	2
	Semester Totals	**8**

Semester 2		Credits
IFWA 1401	Food Preparation I [1]	4
PSTR 1301	Fundamentals of Baking [2]	3
RSTO 1304	Dining Room Service [3]	3
RSTO 1380	*or* Cooperative Education - Restaurant, Culinary, and Catering Management/Manager	
	Semester Totals	10

Semester 3		Credits
CHEF 1340	Meat Preparation and Cooking [4]	3
IFWA 1427	Food Preparation II [5]	4
PSTR 2431	Advanced Pastry Shop [6]	4
	Semester Totals	11

Semester 4		Credits
CHEF 1441	American Regional Cuisine [7]	4
CHEF 1445	International Cuisine [8]	4
RSTO 1313	Hospitality Supervision	3
	Semester Totals	11
	Program Totals	40

Capstone Course(s):
CHEF 1441 - American Regional Cuisine
CHEF 1445 - International Cuisine

Prerequisites
[1,2,3] CHEF 1205, IFWA 1205, IFWA 1217
[4,5] IFWA 1401
[6] PSTR 1301
[7,8] IFWA 1427, PSTR 2431

Culinary Assistant Certificate 1

Semester 1		Credits
CHEF 1205	Sanitation and Safety	2
IFWA 1205	Food Service Equipment and Planning	2
IFWA 1217	Food Production and Planning	2
IFWA 1218	Nutrition for the Food Service Professional	2
	Semester Totals	8

Semester 2		Credits
IFWA 1401	Food Preparation I [1]	4
PSTR 1301	Fundamentals of Baking [2]	3
RSTO 1304	Dining Room Service [3]	3
RSTO 1380	*or* Cooperative Education - Restaurant, Culinary, and Catering Management/Manager	
	Semester Totals	10
	Program Totals	18

Capstone Course(s):
IFWA 1401 - Food Preparation I
PSTR 1301 - Fundamentals of Baking

Prerequisites
[1,2,3] CHEF 1205, IFWA 1205, IFWA 1217

Culinary Specialist Certificate 1

Semester 1		Credits
CHEF 1205	Sanitation and Safety	2
IFWA 1205	Food Service Equipment and Planning	2
IFWA 1217	Food Production and Planning	2
IFWA 1218	Nutrition for the Food Service Professional	2
	Semester Totals	8

Semester 2		Credits
IFWA 1401	Food Preparation I [1]	4
PSTR 1301	Fundamentals of Baking [2]	3
RSTO 1304	Dining Room Service [3]	3
RSTO 1380	*or* Cooperative Education - Restaurant, Culinary, and Catering Management/Manager	
	Semester Totals	10

Semester 3		Credits
CHEF 1340	Meat Preparation and Cooking [4]	3
IFWA 1427	Food Preparation II [5]	4
PSTR 2431	Advanced Pastry Shop [6]	4
	Semester Totals	11
	Program Totals	29

Capstone Course(s):
IFWA 1427 - Food Preparation II
PSTR 2431 - Advanced Pastry Shop

Prerequisites
[1,2,3] CHEF 1205, IFWA 1205, IFWA 1217
[4,5] IFWA 1401
[6] PSTR 1301

Cybersecurity

There's a strong demand for those who understand the importance of protecting a company's data. It takes specialized skills and in-depth knowledge of computer networking, operating systems and administration, encryption, firewalls and much more.

The Cybersecurity (CYS) program will provide students with the knowledge/skills required to:

- Implement, maintain, and securely administer infrastructure hardware and software.
- Implement security controls to aid in preventing, defending, detecting, and responding to cyberattacks and threats.
- Use cyber defense tools/techniques for continual monitoring and analysis of system activity to identify abnormal/malicious activity.
- Perform security reviews and identify security gaps in security implementations, resulting in recommendations for inclusion in a risk mitigation strategy.
- Identify, collect, examine, and preserve evidence using controlled and documented analytical and investigative techniques.

In addition, those who pursue the associate degree have the opportunity to further their skills in digital forensics with the Digital Forensics Advanced Technical Certificate. This certificate is for students who have previously completed an associate degree in security and provides advanced, specialized instruction in Digital Forensics.

Cybersecurity is a Performance-Based Education (PBE) program.

Cyber Security is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First Year Seminar course.

Cybersecurity
Associate of Applied Science Degree

Semester 1		**Credits**
ITNW 1325	Fundamentals of Networking Technologies	3
ITNW 1354	Implementing and Supporting Servers	3
ITSC 1325	Personal Computer Hardware	3
ENGL 1301	Composition I	3
	Semester Totals	**12**

Semester 2		**Credits**
ITDF 1300	Introduction to Digital Forensics	3
ITNW 2321	Networking with TCP/IP	3
ITSY 1374	Secure Linux Administration [1]	3
ACGM X3XX	Gen Ed Mathematics Elective	3
	Semester Totals	**12**

Semester 3		**Credits**
ITNW 2312	Routers 2	3
ITNW 2355	Server Virtualization [3]	3
ITSY 2343	Computer System Forensics [4]	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**12**

Semester 4		**Credits**
ITSY 1342	Information Technology Security [5]	3
ITSY 2301	Firewalls and Network Security [6]	3
ITSY 2330	Intrusion Detection [7]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**12**

Semester 5		**Credits**
ITNW 2350	Enterprise Network [8]	3
ITNW 2380	*or* Cooperative Education - Computer Systems Networking and Telecommunications	
ITSY 1375	Security Scripting	3
ITSY 2359	Security Assessment and Auditing [9]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**12**

Program Totals		60

Capstone Course(s):
ITNW 2350 - Enterprise Network
ITSY 2359 - Security Assessment and Auditing

Prerequisites
[1] ITNW 1354, [2] ITNW 1325, [3,5] ITNW 1345 or ITNW 1354, [4] ITDF 1300, [6] ITNW 1325 or ITNW 2312, [7] ITNW 2321, [8] ITSY 2301, [9] ITSY 1342, ITSY 2301

Digital Forensics Specialist
Advanced Technical Certificate

Semester 1		**Credits**
ITDF 2420	Digital Forensics Collection	4
ITDF 2425	Digital Forensics Tools	4
	Semester Totals	**8**

Semester 2		**Credits**
ITDF 2430	Digital Forensics Analysis	4
ITDF 2435	Comprehensive Digital Forensics Project	4
	Semester Totals	**8**

	Program Totals	16

Basic Cybersecurity OSA
Occupational Skills Award

Semester 1		**Credits**
ITNW 1325	Fundamentals of Networking Technologies	3
ITNW 2321	Networking with TCP/IP	3
ITSY 1342	Information Technology Security [1]	3
	Total	**9**

Prerequisites
[1] TNW 1345 or ITNW 1354

Dental Hygiene

The Dental Hygiene program at TSTC prepares students for the industry of preventative dentistry with a well-rounded curriculum that includes preventative dental hygiene, pharmacology, periodontology, pathology, dental nutrition and more. Dental Hygiene students at TSTC are able to fulfill their clinical experiences at a beautiful, state-of-the-art dental clinic on campus. The students utilize the 14-chair clinic to receive over 600 hours of instruction in a 1-faculty-to-5-student ratio. External clinical experiences also allow a wide variety of patient treatment. Graduates of the program are well prepared to successfully complete the National Dental Hygiene Board and the Western Regional Board Examination, as well as the Texas Jurisprudence Examination for licensure.

Dental Hygiene is available at the Harlingen campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Dental Hygiene
Associate of Applied Science

Semester 1		Credits
BIOL 2101	Anatomy & Physiology I (lab)	1
BIOL 2301	Anatomy & Physiology I (lecture)	3
CHEM 1105	Introductory Chemistry Laboratory I (lab)	1
CHEM 1305	Introductory Chemistry I (lecture)	3
ENGL 1301	Composition I	3
SPCH X3XX	Gen Ed Speech Elective	3
	Semester Totals	**14**

Semester 2		Credits
DHYG 1227	Preventive Dental Hygiene Care	2
DHYG 1301	Orofacial Anatomy, Histology & Embryology	3
DHYG 1331	Preclinical Dental Hygiene	3
BIOL 2102	Anatomy & Physiology II (lab)	1
BIOL 2302	Anatomy & Physiology II (lecture)	3
	Semester Totals	**12**

Semester 3		Credits
DHYG 1211	Periodontology	2
DHYG 1260	Clinical - Dental Hygiene/Hygienist [1]	2
DHYG 1304	Dental Radiology	3
BIOL 2120	Microbiology for Non-Science Majors Laboratory (lab)	1
BIOL 2320	Microbiology for Non-Science Majors (lecture)	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**14**

Semester 4		Credits
DHYG 1235	Pharmacology for the Dental Hygienist	2
DHYG 1261	Clinical - Dental Hygiene/Hygienist [2]	2
DHYG 1319	Dental Materials	3
SOCI 1301	Introduction to Sociology	3
	Semester Totals	**10**

Semester 5		Credits
DHYG 1215	Community Dentistry	2
DHYG 1239	General and Oral Pathology	2
DHYG 2201	Dental Hygiene Care I	2
DHYG 2360	Clinical - Dental Hygiene/Hygienist [3]	3
PSYC 2301	General Psychology	3
	Semester Totals	**12**

Semester 6		Credits
DHYG 1207	General and Dental Nutrition	2
DHYG 2153	Dental Hygiene Practice	1
DHYG 2361	Clinical - Dental Hygiene/Hygienist [4]	3
	Semester Totals	**6**

Program Totals 68

Capstone Course(s):
DHYG 2361 - Clinical - Dental Hygiene/Hygienist

Prerequisites
[1] DHYG 1331
[2] DHYG 1260
[3] DHYG 1261
[4] DHYG 2360

Diesel Equipment Technology*

TSTC's Diesel Equipment Technology program offers several avenues of entry into the workforce: Off-Highway Equipment, Heavy Truck, and John Deere Construction & Forestry. TSTC's field-experienced faculty members work closely with related diesel industries to develop curriculum that meets workforce demands. Diesel Equipment Technology students will learn diesel engine testing and repair, brake systems, HVAC troubleshooting and repair, electrical systems, hydraulics, failure analysis and more. Because of the vast uses of highly advanced pneumatic, hydraulic and electronic systems technology, industry needs quality-trained technicians to repair and maintain the equipment, and TSTC students learn from skilled craftsmen who have actual field experience. For quicker entry into the industry, certificates are also available.

Diesel Equipment Technology is available at the Fort Bend County, Marshall, North Texas, Sweetwater and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

*This program is eligible for a Money-Back Guarantee. Visit page 95 for more details.

Diesel Equipment Technology Heavy Truck Specialization Associate of Applied Science -

Fort Bend County, North Texas, Sweetwater, Waco only

Semester 1		Credits
DEMR 1301	Shop Safety and Procedures	3
DEMR 1317	Basic Brake Systems	3
DEMR 1410	Diesel Engine Testing and Repair I	4
DEMR 2412	Diesel Engine Testing and Repair II [1]	4
ENGL 1301	Composition I	3
	Semester Totals	**17**

Semester 2		Credits
DEMR 1305	Basic Electrical Systems	3
DEMR 1316	Basic Hydraulics	3
DEMR 1321	Power Train I	3
DEMR 1323	Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	**15**

Semester 3		Credits
DEMR 1327	Tractor Trailer Service and Repair [2]	3
DEMR 1330	Steering and Suspension I	3
DEMR 1329	*or* Preventative Maintenance	
DEMR 1380	Cooperative Education - Diesel Mechanics Technology/Technician	3
DEMR 2348	*or* Failure Analysis	
DEMR 1447	Power Train II [3]	4
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**16**

Semester 4		Credits
DEMR 2332	Electronic Controls [4]	3
DEMR 2334	Advanced Diesel Tune-Up and Troubleshooting [5]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**12**
	Program Totals	**60**

Capstone Course(s):
DEMR 2334 - Advanced Diesel Tune-Up and Troubleshooting

Prerequisites
[1] DEMR 1410 (Prerequisite or Corequisite)
[2] DEMR 1317
[3] DEMR 1321 or DEMR 1421
[4] DEMR 1305, DEMR 2412
[5] DEMR 2412, DEMR 2312 or AUMT 2417

Diesel Equipment Technology-Heavy Truck Certificate 1 - Fort Bend County, North Texas, Sweetwater, Waco only

Semester 1		Credits
DEMR 1301	Shop Safety and Procedures	3
DEMR 1317	Basic Brake Systems	3
DEMR 1410	Diesel Engine Testing and Repair I	4
DEMR 2412	Diesel Engine Testing and Repair II [1]	4
	Semester Totals	**14**

Semester 2		Credits
DEMR 1305	Basic Electrical Systems	3
DEMR 1316	Basic Hydraulics	3
DEMR 1321	Power Train I	3
DEMR 1323	Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair	3
	Semester Totals	**12**

Semester 3		Credits
DEMR 1327	Tractor Trailer Service and Repair [2]	3
DEMR 1330	Steering and Suspension I	3
DEMR 1329	*or* Preventative Maintenance	
DEMR 1447	Power Train II [3]	4
	Semester Totals	**10**
	Program Totals	**36**

Capstone Course(s):
DEMR 1327 - Tractor Trailer Service and Repair

Prerequisites
[1] DEMR 1410 (Prerequisite or Corequisite), [2] DEMR 1317, [3] DEMR 1321 or DEMR 1421

Diesel Equipment Technology Heavy Truck Certificate 2 - Fort Bend County, North Texas, Sweetwater, Waco only

Semester 1		Credits
DEMR 1301	Shop Safety and Procedures	3
DEMR 1317	Basic Brake Systems	3
DEMR 1410	Diesel Engine Testing and Repair I	4
DEMR 2412	Diesel Engine Testing and Repair II [1]	4
	Semester Totals	14

Semester 2		Credits
DEMR 1305	Basic Electrical Systems	3
DEMR 1316	Basic Hydraulics	3
DEMR 1321	Power Train I	3
DEMR 1323	Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair	3
	Semester Totals	12

Semester 3		Credits
DEMR 1330	Steering and Suspension I	3
DEMR 1329	*or* Preventative Maintenance	
DEMR 1327	Tractor Trailer Service and Repair [2]	3
DEMR 1447	Power Train II [3]	4
	Semester Totals	10

Semester 4		Credits
DEMR 1380	Cooperative Education - Diesel Mechanics Technology/Technician	3
DEMR 2348	*or* Failure Analysis	
DEMR 2332	Electronic Controls [4]	3
DEMR 2334	Advanced Diesel Tune-Up and Troubleshooting [5]	3
	Semester Totals	9
	Program Totals	45

Capstone Course(s):
DEMR 2334 - Advanced Diesel Tune-Up and Troubleshooting

Prerequisites
[1] DEMR 1410 (Prerequisite or Corequisite)
[2] DEMR 1317
[3] DEMR 1321 or DEMR 1421
[4] DEMR 1305, DEMR 2412
[5] DEMR 2412, DEMR 2312 or AUMT 2417

Diesel Equipment Technology- John Deere Construction & Forestry Associate of Applied Science - Waco only

Semester 1		Credits
DEMR 1301	Shop Safety and Procedures	3
DEMR 1410	Diesel Engine Testing and Repair I	4
DEMR 2412	Diesel Engine Testing and Repair II [1]	4
ENGL 1301	Composition I	3
	Semester Totals	14

Semester 2		Credits
DEMR 1305	Basic Electrical Systems	3
DEMR 1316	Basic Hydraulics	3
DEMR 1321	Power Train I	3
DEMR 1323	Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair	3
PHYS 1315	Physical Science I (lecture)	3
	Semester Totals	15

Semester 3		Credits
DEMR 1680	Cooperative Education - Diesel Mechanics Technology/Technician	6
	Semester Totals	6

Semester 4		Credits
DEMR 2335	Advanced Hydraulics [2]	3
DEMR 2344	Automatic Power Shift and Hydrostatic Transmissions II [3]	3
HEMR 1401	Tracks and Undercarriages	4
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	13

Semester 5		Credits
DEMR 2332	Electronic Controls [4]	3
DEMR 2348	Failure Analysis	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	12
	Program Totals	60

Capstone Course(s):
DEMR 2332 - Electronic Controls

Prerequisites
[1] DEMR 1410 (Prerequisite or Corequisite)
[2] DEMR 1316 or DEMR 1416
[3] DEMR 1321 or DEMR 2312 or DEMR 2412
[4] DEMR 1305, DEMR 2412

Diesel Equipment Technology - Off-Highway Specialization Associate of Applied Science - Marshall, Waco only

Semester 1		Credits
DEMR 1301	Shop Safety and Procedures	3
DEMR 1317	Basic Brake Systems	3
DEMR 1410	Diesel Engine Testing and Repair I	4
DEMR 2412	Diesel Engine Testing and Repair II [1]	4
ENGL 1301	Composition I	3
	Semester Totals	17

Semester 2		Credits
DEMR 1305	Basic Electrical Systems	3
DEMR 1316	Basic Hydraulics	3
DEMR 1321	Power Train I	3
DEMR 1323	Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	15

Semester 3		Credits
AGME 1353	Harvesting Equipment	3
HEMR 1304	*or* Natural Gas Compression	
DEMR 2335	Advanced Hydraulics [2]	3
DEMR 2344	Automatic Power Shift and Hydrostatic Transmissions II [3]	3
HEMR 1401	Tracks and Undercarriages	4
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**16**

Semester 4		Credits
DEMR 2332	Electronic Controls [4]	3
DEMR 2334	Advanced Diesel Tune-Up and Troubleshooting [5]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**12**
	Program Totals	**60**

Capstone Course(s):
DEMR 2334 - Advanced Diesel Tune-Up and Troubleshooting

Prerequisites
[1] DEMR 1410 (Prerequisite or Corequisite)
[2] DEMR 1316 or DEMR 1416
[3] DEMR 1321 or DEMR 2312 or DEMR 2412
[4] DEMR 1305, DEMR 2412
[5] DEMR 2412, DEMR 2312 or AUMT 2417

Diesel Equipment Technology - Off-Highway Equipment Certificate 1 - Marshall, Waco only

Semester 1		Credits
DEMR 1301	Shop Safety and Procedures	3
DEMR 1317	Basic Brake Systems	3
DEMR 1410	Diesel Engine Testing and Repair I	4
DEMR 2412	Diesel Engine Testing and Repair II [1]	4
	Semester Totals	**14**

Semester 2		Credits
DEMR 1305	Basic Electrical Systems	3
DEMR 1316	Basic Hydraulics	3
DEMR 1321	Power Train I	3
DEMR 1323	Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair	3
	Semester Totals	**12**

Semester 3		Credits
AGME 1353	Harvesting Equipment	3
HEMR 1304	*or* Natural Gas Compression	
DEMR 2344	Automatic Power Shift and Hydrostatic Transmissions II [2]	3
HEMR 1401	Tracks and Undercarriages	4
	Semester Totals	**10**
	Program Totals	**36**

Capstone Course(s):
HEMR 1401 - Tracks and Undercarriages

Prerequisites
[1] DEMR 1410 (Prerequisite or Corequisite)
[2] DEMR 1321 or DEMR 2312 or DEMR 2412

Diesel Equipment Technology - Off-Highway Specialization Certificate 2 - Marshall, Waco only

Semester 1		Credits
DEMR 1301	Shop Safety and Procedures	3
DEMR 1317	Basic Brake Systems	3
DEMR 1410	Diesel Engine Testing and Repair I	4
DEMR 2412	Diesel Engine Testing and Repair II [1]	4
	Semester Totals	**14**

Semester 2		Credits
DEMR 1305	Basic Electrical Systems	3
DEMR 1316	Basic Hydraulics	3
DEMR 1321	Power Train I	3
DEMR 1323	Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair	3
	Semester Totals	**12**

Semester 3		Credits
AGME 1353	Harvesting Equipment	3
HEMR 1304	*or* Natural Gas Compression	
DEMR 2335	Advanced Hydraulics [2]	3
DEMR 2344	Automatic Power Shift and Hydrostatic Transmissions II [3]	3
HEMR 1401	Tracks and Undercarriages	4
	Semester Totals	**13**

Semester 4		Credits
DEMR 2332	Electronic Controls [4]	3
DEMR 2334	Advanced Diesel Tune-Up and Troubleshooting [5]	3
	Semester Totals	**6**
	Program Totals	**45**

Capstone Course(s):
DEMR 2334 - Advanced Diesel Tune-Up and Troubleshooting

Prerequisites
[1] DEMR 1410 (Prerequisite or Corequisite)
[2] DEMR 1316 or DEMR 1416
[3] DEMR 1321 or DEMR 2312 or DEMR 2412
[4] DEMR 1305, DEMR 2412
[5] DEMR 2412, DEMR 2312 or AUMT 2417

Digital Media Design

While you watch commercials, do you think to yourself, "I could do that better"? When you pass by a billboard, do you say to yourself, "I can't even read that"? In the Digital Media Design program, our goal is to inspire and teach a new generation of media artists how to be employable in the print, photography, videography and web design industries. We'll show you the techniques necessary to produce quality media design, and equip you with tools to grow as creative thinkers and innovators. Students in this program will manipulate sound, still images, 3-D images, animations, UXUI and digital video on computers. This program will provide training in desktop publishing, painting, drawing, color correction, solids modeling, animation, sound editing, nonlinear video editing web, page creating, photography, 3-D printing, marking and design.

Digital Media Design is a Performance-Based Education (PBE) program.

Digital Media Design is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First Year Seminar course.

Digital Media Design
Associate of Applied Science

Semester 1		**Credits**
ARTC 1317	Design Communication I	3
ARTC 1327	Typography	3
GRPH 1359	Vector Graphics for Production	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	12

Semester 2		**Credits**
ARTC 1302	Digital Imaging I	3
ARTC 2347	Design Communication II [1]	3
PHTC 1311	Fundamentals of Photography [2]	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	12

Semester 3		**Credits**
ARTC 1313	Digital Publishing I [3]	3
ARTC 2305	Digital Imaging II [4]	3
ARTV 1351	Digital Video	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	12

Semester 4		**Credits**
ARTV 2341	Advanced Digital Video [5]	3
IMED 1341	Interface Design	3
MRKG 2349	Advertising and Sales Promotion [6]	3
ARTV 1345	*or* 3-D Modeling and Rendering I [7]	
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	12

Semester 5		**Credits**
ARTC 2335	Portfolio Development for Graphic Design	3
IMED 1316	Web Design I [8]	3
IMED 1345	Interactive Digital Media I [9]	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	12

Program Totals	60

Capstone Course(s):
ARTC 2335 - Portfolio Development for Graphic Design

Prerequisites
[1] ARTC 1317
[2] ARTC 1302 (Prerequisite or Corequisite)
[3] AARTC 1302 or ARTC 1305
[4,6,7] ARTC 1302
[5] ARTV 1351
[8] ITSE 1311 or ARTC 1302 (Prerequisite or Corequisite)
[9] IMED 1341

Education and Training

The Education and Training program is designed to prepare students to meet the demands of an increasingly competitive and intellectually challenging future through educational and personal growth, practical skills development, academic courses and career preparation.The program is composed of educational classes with technical labs for hands-on learning and allows students to gain specialized training in one of the four developed educational areas of emphasis listed below: Bilingual Education, Early Childhood Education, Special Education, or General Education (emphasis in Reading and Writing). Students will require two courses from the correspondent Area of Emphasis as listed below. The students will create and develop instructional materials ready to be used in the school setting utilizing a variety of state-of-the-art media and technical resources. For quicker entry into the industry, a certificate is also available. It requires that the student take one course from their corresponding area of emphasis.

Education and Training is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Education and Training
Associate of Applied Science

Semester 1		**Credits**
EDTC 1301	Educational Systems	3
EDTC 1341	Instructional Technology and Computer Applications	3
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
	Semester Totals	**12**

Semester 2		**Credits**
CDEC 1359	Children with Special Needs	3
EDTC 2311	Instructional Practices and Effective Learning Environments	3
HIST 1302	United States History II	3
SPCH 1315	Public Speaking	3
	Semester Totals	**12**

Semester 3		**Credits**
EDTC 1307	Introduction to Teaching Reading	3
TECA 1354	Child Growth & Development	3
GOVT 2305	Federal Government (Federal constitution & topics)	3
MATH 1314	College Algebra (3 SCH version)	3
WECM X3XX	Area of Emphasis Course 1	3
	Semester Totals	**15**

Semester 4		**Credits**
EDTC 1374	Teaching Math & Science in the Elementary School	3
EDTC 2317	Guiding Student Behavior	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
WECM X3XX	Area of Emphasis Course 2	3
	Semester Totals	**12**

Semester 5		**Credits**
EDTC 1364	Practicum (or Field Experience) - Teacher Assistant/Aide	3
CDEC 1318	Wellness of the Young Child	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**9**

	Program Totals	**60**

Capstone Course(s:)
EDTC 1364 - Practicum (or Field Experience) - Teacher Assistant/Aide

Area of Emphasis Courses

Emphasis in Billingual Education (2 courses required)		**Credits**
EDTC 1321	Bilingual Education	3
EDTC 1325	Multicultural Education	3

Emphasis in Early Childhood Education (2 courses required)		**Credits**
CDEC 1321	The Infant and Toddler	3
CDEC 1356	Emergent Literacy for Early Childhood	3

Emphasis in General Education (2 courses required)		**Credits**
EDTC 1373	Writing Problems	3
EDTC 2305	Reading Problems	3

Emphasis in Special Needs Education (2 courses required)		**Credits**
CDEC 2340	Instructional Techniques for Children with Special Needs	3
EDTC 1375	Issues in Special Needs Education	3

Education & Training Certificate 2

Semester 1		Credits
EDTC 1301	Educational Systems	3
EDTC 1341	Instructional Technology and Computer Applications	3
HIST 1301	United States History I	3
SPCH 1315	Public Speaking	3
	Semester Totals	**12**

Semester 2		Credits
CDEC 1318	Wellness of the Young Child	3
CDEC 1359	Children with Special Needs	3
EDTC 2311	Instructional Practices and Effective Learning Environments	3
ENGL 1301	Composition I	3
HIST 1302	United States History II	3
	Semester Totals	**15**

Semester 3		Credits
EDTC 2317	Guiding Student Behavior	3
TECA 1354	Child Growth & Development	3
GOVT 2305	Federal Government (Federal constitution & topics)	3
MATH 1314	College Algebra (3 SCH version)	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**15**

Semester 4		Credits
EDTC 1164	Practicum (or Field Experience) - Teacher Assistant/Aide	1
WECM X3XX	Area of Emphasis Course	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**7**
	Program Totals	**49**

Capstone Course(s):
EDTC 1164 - Practicum (or Field Experience) - Teacher Assistant/Aide

Area of Emphasis Courses

EDTC 1321	Bilingual Education	3
EDTC 1325	Multicultural Education	3
CDEC 1321	The Infant and Toddler	3
CDEC 1356	Emergent Literacy for Early Childhood	3
EDTC 1373	Writing Problems	3
EDTC 2305	Reading Problems	3
CDEC 2340	Instructional Techniques for Children with Special Needs	3
EDTC 1375	Issues in Special Needs Education	3

Electrical Construction

The Electrical Construction certificate program offers specific coursework in residential and commercial wiring systems. The program also provides training opportunities to aid individuals interested in earning licenses specific to the electrical field. The program requires extensive hands-on work with electrical materials and equipment. Curriculum teaches students blueprint reading, technical calculations, electrical safety and theory, residential and commercial wiring, and more. Most graduates will begin their careers as assistants to experienced electricians, installing electrical wiring in new construction and servicing wiring in existing structures.

Electrical Construction is available at the Waco campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Electrical Construction Certificate 1

Semester 1		**Credits**
CNBT 1300	Residential and Light Commercial Blueprint Reading	3
DFTG 1313	*or* Drafting for Specific Occupations	
ELPT 1329	Residential Wiring	3
ITSC 1309	Integrated Software Applications I	3
TECM 1303	Technical Calculations	3
SOLR 1371	Introduction to Solar and Alternative Energy Technologies	3
	Semester Totals	15

Semester 2		**Credits**
ELPT 1311	Basic Electrical Theory	3
ELPT 1325	National Electrical Code I	3
ELPT 1345	Commercial Wiring	3
OSHT 1305	OSHA Regulations - Construction Industry	3
ELPT 1357	Industrial Wiring [1]	3
	Semester Totals	15

Semester 3		**Credits**
ELPT 1681	Cooperative Education - Electrical and Power Transmission Installation/Installer, General	6
	Semester Totals	6
	Program Totals	36

Capstone Course(s):
ELPT 1681 Cooperative Education - Electrical and Power Transmission Installation/Installer, General

Prerequisites
[1] ELPT 1329 or ELPT 1345

Electrical Lineworker Technology*

Lineworker occupations are among the most physically demanding but highest-paying careers in the nation, and Texas employs more than any other state. In TSTC's Electrical Lineworker program, you'll perform practical exercises on the safe use and operation of lineworker climbing gear, equipment and tools in an authentic utility training environment. To earn high wages in this exciting career, you must be able to work at elevated heights for long hours in all weather conditions. This industry is for those who want to reap the rewarding benefits of a high-demand career.

Please note: Candidates for this program will be required upon entry to provide a Valid Class C Driver's License, a valid Social Security Card (Authorized to work in the US), 18 years of age, DOT Physical Medical Examination Report and Certificate, and provide a copy of a Non-Certified Driving Record from the Department of Motor Vehicles for each state they have resided during the last 7 years without warrants or pending criminal charges.

Out-of-state students will be required to enter the program with a Class A Commercial Driver's License from their state of origin, or must stay in local housing or dorms to be eligible to change residency to the State of Texas while enrolled in classes.

A PDF of instructions on how to order a driver record for the Electrical Lineworker program can be found here.

Electrical Lineworker Technology is available at the Fort Bend County, Harlingen, Marshall and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

*This program is eligible for a Money-Back Guarantee. Visit page 95 for more details.

Electrical Lineworker Technology
Associate of Applied Science

Semester 1		**Credits**
CVOP 1305	Commercial Drivers License Written Skills [1]	3
LNWK 1301	Orientation and Line Skill Fundamentals	3
LNWK 1311	Climbing Skills	3
LNWK 1370	Rigging for Electrical Lineworker	3
	Semester Totals	**12**

Semester 2		**Credits**
CVOP 1301	Commercial Drivers License Driving Skills [2]	3
LNWK 2372	*or* Work Procedures and Safety in Electrical Lineworker [3]	
LNWK 1241	Distribution Operations [4]	2
LNWK 1470	Electrical Safety, Tools and Calculations [5]	4
LNWK 2321	Live Line Safety [6]	3
	Semester Totals	**12**

Semester 3		**Credits**
LNWK 1331	Transformer Connections [7]	3
LNWK 1391	Special Topics in Lineworker [8]	3
LNWK 2322	Distribution Line Construction [9]	3
OSHT 1305	OSHA Regulations - Construction Industry	3
	Semester Totals	**12**

Semester 4		**Credits**
LNWK 2324	Troubleshooting Distribution Systems [10]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	**12**

Semester 5		**Credits**
LNWK 2370	Transmission and Underground Utilities [11]	3
LNWK 2371	Maintenance, Testing, and Reconducting for Lineworker [12]	3
ACGM X3XX	Gen Ed Elective	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	**12**
	Program Totals	**60**

Capstone Course(s):
LNWK 2322 - Distribution Line Construction
LNWK 2371 - Maintenance, Testing, and Reconducting for Lineworker

Prerequisites
[1] DOT Physical and Medical Card
[2,3,4,5,6] CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370
[7,8,9] CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370, LNWK 2321, CVOP 1301, LNWK 1241
[10] CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370, LNWK 2321, CVOP 1301, LNWK 1241, LNWK 1391, LNWK 1331, LNWK 2322
[11,12] CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370, LNWK 2321, CVOP 1301, LNWK 1241, LNWK 1391, LNWK 1331, LNWK 2322, LNWK 2324

Electrical Lineworker Certificate 1

Semester 1		**Credits**
CVOP 1305	Commercial Drivers License Written Skills [1]	3
LNWK 1301	Orientation and Line Skill Fundamentals	3
LNWK 1311	Climbing Skills	3
LNWK 1370	Rigging for Electrical Lineworker	3
	Semester Totals	**12**

Semester 2		**Credits**
CVOP 1301	Commercial Drivers License Driving Skills [2]	3
LNWK 2372	*or* Work Procedures and Safety in Electrical Lineworker	
LNWK 1241	Distribution Operations [3]	2
LNWK 1470	Electrical Safety, Tools and Calculations [4]	4
LNWK 2321	Live Line Safety [5]	3
	Semester Totals	**12**

Semester 3		**Credits**
LNWK 1331	Transformer Connections [6]	3
LNWK 1391	Special Topics in Lineworker [7]	3
LNWK 2322	Distribution Line Construction [8]	3
OSHT 1305	OSHA Regulations - Construction Industry	3
	Semester Totals	**12**
	Program Totals	**36**

Capstone Course(s):
LNWK 2322 - Distribution Line Construction

Prerequisites
[1] DOT Physical and Medical Card
[2,3,4,5] CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370
[6,7,8] CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370, LNWK 2321, CVOP 1301, LNWK 1241

Electrical Power & Controls*

The Electrical Power & Controls program offers instruction in engineering and design; installation and calibration; maintenance, testing and troubleshooting; substation technician; and electric utility design . Through intensive classroom instruction and hands-on experience in high-tech labs, students gain a solid foundation in basic electrical concepts, motors and control applications, then advance to electronics, measurement and calibration, electrical codes and automated control systems. Knowledge is developed through extensive work with equipment, including DC and AC motors, PLCs, speed-drive systems, and computer software packages for engineering, designing and drafting.

Electrical Power & Controls is available at the Abilene, Fort Bend County, North Texas and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

*This program is eligible for a Money-Back Guarantee. Visit page 95 for more details.

Electrical Power & Controls
Associate of Applied Science - Abilene, Fort Bend County, North Texas, Waco only

Semester 1		**Credits**
CETT 1303	DC Circuits	3
ELPT 1321	Introduction to Electrical Safety and Tools	3
MATH 1316	Plane Trigonometry	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**12**

Semester 2		**Credits**
CETT 1305	AC Circuits [1]	3
ELPT 1341	Motor Control [2]	3
ENGL 2311	Technical & Business Writing	3
ENGL 1301	*or* Composition I	
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**12**

Semester 3		**Credits**
CETT 1325	Digital Fundamentals [3]	3
ELPT 1380	*or* Cooperative Education - Electrical and Power Transmission Installation/Installer, General	
DFTG 1313	Drafting for Specific Occupations	3
ELPT 2319	Programmable Logic Controllers I [4]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**12**

Semester 4		**Credits**
EEIR 1309	National Electrical Code [5]	3
ELPT 1351	Electrical Machines [6]	3
ELPT 2335	Electrical Theory and Devices [7]	3
ELPT 2339	Electrical Power Distribution	3
	Semester Totals	**12**

Semester 5		**Credits**
ELPT 2323	Transformers [8]	3
ELPT 2331	AC/DC Drives	3
ELPT 2343	Electrical Systems Design [9]	3
ELPT 2347	Electrical Testing and Maintenance	3
	Semester Totals	**12**

	Program Totals	**60**

Capstone Course(s):
ELPT 2343 - Electrical Systems Design

Prerequisites
[1] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
[2] AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371
[3] CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
[4] ELPT 1341 (Prerequisite or Corequisite)
[5] CETT 1305, ELPT 1341
[6] ELPT 1341
[7] CETT 1305 or MATH 1316
[8] ELPT 2335
[9] DFTG 1313, EEIR 1309 or ELPT 2339

Electromechanical Technology

The Electromechanical Technology program is a merging of various systems and controls, both mechanical and electrical. The program combines computers, control systems, electrical systems and mechanical systems, and gives students the opportunity to learn the principles and skills required to enter the industry. In the lab setting, students receive hands-on experience with top-notch !equipment and systems. They learn to troubleshoot and repair industrial equipment, and study the skills, tips and tricks to make them successful in this exciting field.

Electromechanical Technology is available at the Sweetwater campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Electromechanical Technology Associate of Applied Science

Semester 1		Credits
CETT 1303	DC Circuits	3
RBTC 1343	Robotics [1]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	**12**

Semester 2		Credits
CETT 1305	AC Circuits [2]	3
CETT 1325	Digital Fundamentals [3]	3
ELMT 1305	Basic Fluid Power	3
ELMT 1373	Pumps and Compressors Control	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**15**

Semester 3		Credits
CETT 1329	Solid State Devices [4]	3
ELMT 1301	Programmable Logic Controllers [5]	3
ENER 2325	SCADA and Networking [6]	3
INMT 1317	Industrial Automation	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	**15**

Semester 4		Credits
EELMT 2333	Industrial Electronics	3
ELMT 2239	Advanced Programmable Logic Controllers [7]	2
ELMT 2341	Electromechanical Systems	3
ELMT 2371	Industrial Control Power Devices [8]	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**14**

Semester 5		Credits
ELMT 2480	Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology	4
ELMT 1491	*or* Special Topics in Electromechanical Technology/Technician	
	Semester Totals	**4**
	Program Totals	**60**

Capstone Course(s):
ELMT 2480 - Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology
ELMT 1491 - Special Topics in Electromechanical Technology/Technician

Prerequisites
[1,2] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite), [3] CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite), [4] CETT 1305, IEIR 1371 or IEIR 1304, [5] CETT 1325, [7] CETT 1303, CETT 1305, [8] ELMT 1301, [9] CETT 1305

Electromechanical Technician Certificate 2

Semester 1		Credits
CETT 1303	DC Circuits	3
RBTC 1343	Robotics [1]	3
TECM 1303	Technical Calculations	3
MATH 1314	*or* College Algebra (3 SCH Version)	
	Semester Totals	**9**

Semester 2		Credits
CETT 1305	AC Circuits [2]	3
CETT 1325	Digital Fundamentals [3]	3
ELMT 1305	Basic Fluid Power	3
ELMT 1373	Pumps and Compressors Control	3
	Semester Totals	**12**

Semester 3		Credits
ELMT 1301	Programmable Logic Controllers [4]	3
CETT 1329	Solid State Devices [5]	3
ENER 2325	SCADA and Networking [6]	3
INMT 1317	Industrial Automation [7]	3
	Semester Totals	**12**

Semester 4		Credits
ELMT 2333	Industrial Electronics	3
ELMT 2239	Advanced Programmable Logic Controllers [8]	2
ELMT 2341	Electromechanical Systems	3
ELMT 2371	Industrial Control Power Devices [9]	3
	Semester Totals	**11**
	Program Totals	**44**

Capstone Course(s):
ELMT 2341 - Electromechanical Systems

Prerequisites
[1,2] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite), [3] CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite), [4] CETT 1325, [5] CETT 1305, IEIR 1371 or IEIR 1304, [6,7] CETT 1303, CETT 1305, [8] ELMT 1301, [9] CETT 1305

Emergency Medical Services

In TSTC's Emergency Medical Services program, you'll learn from experienced, certified instructors in an environment that combines hands-on labs with online lectures. You'll gain skills in medical procedures required to assess and treat victims at the scene and en route to the hospital, and you'll get to put your abilities to the test in a clinical learning environment to gain extensive, on-the-job experience. As a program, our goal is to prepare competent entry-level EMT's and paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains, with exit points at the Advanced Emergency Medical Technician, Emergency Medical Technician (Basic), and/or First Responder levels.

Students scoring less than 70 percent as a final course average in EMS will not progress to the next section. EMT students who fail EMSP 1501 will also fail EMSP 2237 and EMSP 1261, and would be required to repeat those courses in FULL. Should a student fail an advanced level course, the student will be dismissed and may be given the opportunity to reapply and repeat the program in FULL. Paramedic students are required to pass A&P (BIOL 2404) or equivalent to obtain a course completion. The 70 percent passing rate in the TSTC EMS Program is based on the preparation of our students to pass the National Registry Exam. The National Registry Exam is required to certify as a Registered EMT or Paramedic.

Students participating in clinical and field internships are required to purchase accident, needlestick and malpractice insurance.

Emergency Medical Services is available at the Abilene, Brownwood and Harlingen campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Paramedic
Associate of Applied Science

Semester 1		**Credits**
EMSP 1261	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 1501	Emergency Medical Technician	5
EMSP 2237	Emergency Procedures	2
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	12

Semester 2		**Credits**
EMSP 1355	Trauma Management	3
EMSP 1356	Patient Assessment and Airway Management	3
EMSP 1438	Introduction to Advanced Practice	4
MDCA 1313	Medical Terminology	3
BIOL 2404	Anatomy & Physiology (lecture + lab)	4
	Semester Totals	17

Semester 3		**Credits**
EMSP 2161	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2167	Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2206	Emergency Pharmacology	2
EMSP 2330	Special Populations	3
EMSP 2444	Cardiology	4
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	14

Semester 4		**Credits**
EMSP 2143	Assessment Based Management	1
EMSP 2168	Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2205	EMS Operations	2
EMSP 2262	Clinical - Emergency Medical Technology/ Technician (EMT Paramedic)	2
EMSP 2434	Medical Emergencies	4
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	13

Semester 5		**Credits**
EMSP 2169	Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)	1
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	4

	Program Totals	60

Capstone Course(s):
EMSP 2143 - Assessment Based Management
EMSP 2169 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)

Emergency Medical Services - Advanced EMT (AEMT) Certificate 1

Semester 1		**Credits**
EMSP 1261	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 1501	Emergency Medical Technician	5
EMSP 2237	Emergency Procedures	2
	Semester Totals	9

Semester 2		**Credits**
EMSP 1355	Trauma Management	3
EMSP 1356	Patient Assessment and Airway Management	3
EMSP 1438	Introduction to Advanced Practice	4
MDCA 1313	Medical Terminology	3
	Semester Totals	13

Semester 3		**Credits**
EMSP 2161	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2167	Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2205	EMS Operations	2
EMSP 2330	Special Populations	3
EMSP 2434	Medical Emergencies	4
	Semester Totals	11

	Program Totals	33

Capstone Course(s):
EMSP 2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)

Emergency Medical Services - EMT Certificate 1

Semester 1		Credits
EMSP 1261	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 1501	Emergency Medical Technician	5
EMSP 2237	Emergency Procedures	2
	Semester Totals	**9**

Semester 2		Credits
MDCA 1313	Medical Terminology	3
SCIT 1407	Applied Human Anatomy and Physiology I	4
	Semester Totals	**7**
	Program Totals	**16**

Capstone Course(s):
EMSP 1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Emergency Medical Services - Paramedic Certificate 2

Semester 1		Credits
EMSP 1261	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 1501	Emergency Medical Technician	5
EMSP 2237	Emergency Procedures	2
	Semester Totals	**9**

Semester 2		Credits
EMSP 1355	Trauma Management	3
EMSP 1356	Patient Assessment and Airway Management	3
EMSP 1438	Introduction to Advanced Practice	4
MDCA 1313	Medical Terminology	3
BIOL 2404	Anatomy & Physiology (lecture + lab)	4
	Semester Totals	**17**

Semester 3		Credits
EMSP 2161	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2167	Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2206	Emergency Pharmacology	2
EMSP 2330	Special Populations	3
EMSP 2444	Cardiology	4
	Semester Totals	**11**

Semester 4		Credits
EMSP 2143	Assessment Based Management	1
EMSP 2168	Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2205	EMS Operations	2
EMSP 2262	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2434	Medical Emergencies	4
	Semester Totals	**10**

Semester 5		Credits
EMSP 2169	Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)	1
	Semester Totals	**1**
	Program Totals	**48**

Capstone Course(s):
EMSP 2143 - Assessment Based Management
EMSP 2169 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)

Engineering

The Engineering program supports and enhances the College's technical education mission by providing Texas industry with employees who perform well at the entry level by virtue of their competence in math and problem-solving techniques using engineering principles. The Engineering program prepares graduates for advancement in the workplace through superior science and mathematics-based problem-solving skills, and facilitates progress toward successful completion of further educational goals and/or lifelong learning experiences.

Engineering is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Engineering
Associate of Science

Semester 1		**Credits**
ENGR 1201	Introduction to Engineering [1]	2
CHEM 1311	General Chemistry I (lecture) [2]	3
CHEM 1111	General Chemistry I (lab) [3]	1
ENGL 1301	Composition I	3
MATH 2312	Pre-Calculus Math (3 SCH version) [4]	3
	Semester Totals	**12**

Semester 2		**Credits**
ENGR 1304	Engineering Graphics I (3 SCH Version) [5]	3
ENGL 1302	Composition II [6]	3
GOVT 2306	Texas Government (Texas constitution & topics)	3
MATH 2413	Calculus I (4 SCH version) [7]	4
	Semester Totals	**13**

Semester 3		**Credits**
ENGR 2304	Programming for Engineers	3
MATH 2414	Calculus II (4 SCH version) [8]	4
PHYS 2325	University Physics I (lecture) [9]	3
PHYS 2125	University Physics Laboratory I (lab) [10]	1
	Semester Totals	**11**

Semester 4		**Credits**
ENGR 2301	Engineering Mechanics - Statics (3 SCH version) [11]	3
HIST 1301	United States History I	3
MATH 2415	Calculus III (4 SCH version) [12]	4
PHYS 2326	University Physics II (lecture) [13]	3
PHYS 2126	University Physics Laboratory II (lab) [14]	1
	Semester Totals	**14**

Semester 5		**Credits**
ENGR 2105	Electrical Circuits I Laboratory	1
ENGR 2302	Engineering Mechanics - Dynamics (3 SCH version) [15]	3
ENGR 2305	Electrical Circuits I [16]	3
MATH 2320	Differential Equations (3 SCH version) [17]	3
	Semester Totals	**10**
	Program Totals	**60**

Capstone Course(s):
ENGR 2305 Electrical Circuits I
ENGR 2105 Electrical Circuits I Laboratory

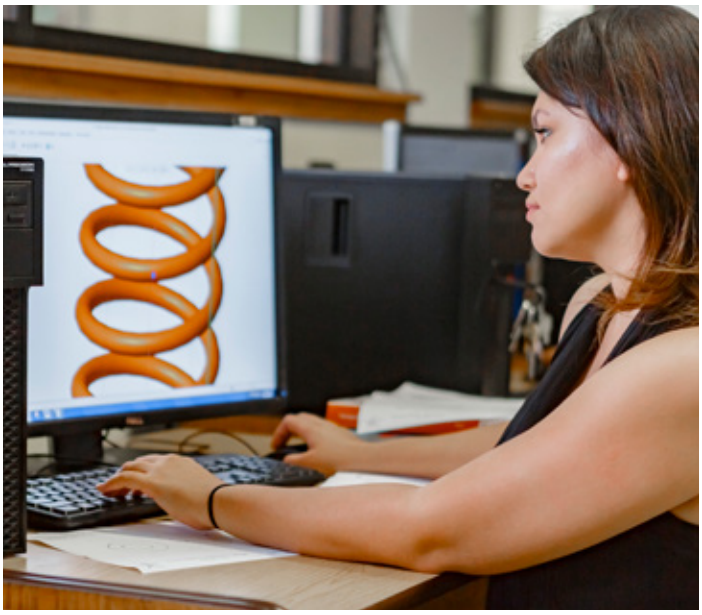
Prerequisites
[1,5,12] MATH 1314
[2] MATH 1314 (Prerequisite), CHEM 1111 (Corequisite)
[3] CHEM 1311 (Corequisite)
[4] MATH 1314 or MATH 1316
[6] ENGL 1301
[7] MATH 1316 or MATH 2312 or MATH 2412
[8] MATH 2413
[9] MATH 2413 (Prerequisite), PHYS 2125 (Corequisite)
[10] PHYS 2325 (Corequisite)
[11] PHYS 2325
[13] PHYS 2325, MATH 2414 (Prerequisite), PHYS 2126 (Corequisite)
[14] PHYS 2326 (Corequisite)
[15] ENGR 2301
[16] PHYS 2325, MATH 2414
[17] MATH 2414

Engineering Graphics and Design Technology

Demand for drafters varies by specialization, and nothing in the industry is more exciting than mechanical/electronic drafting. No longer are the pen and pencil the standard for drafters. Today in this field, student drafters are taught Computer-Aided Drafting (CAD) and can produce industrial drawings utilized in industry to produce all types of products. All students receive instruction in both two- and three-dimensional CAD systems. Students focus on drafting applications in mechanical, electro-mechanical, process piping, printed circuit board design, and many other areas of manufacturing and electronic-related drafting. Students will be exposed to the hottest drawing software on the market including AutoCad, Solid Works and Inventor.

Engineering Graphics and Design Technology is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.



Engineering Graphics and Design Technology Associate of Applied Science

Semester 1		**Credits**
DFTG 1309	Basic Computer-Aided Drafting	3
DFTG 1325	Blueprint Reading and Sketching	3
MATH 1314	College Algebra (3 SCH Version)	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	12

Semester 2		**Credits**
DFTG 1329	Electro-Mechanical Drafting [1]	3
DFTG 1345	Parametric Modeling and Design [2]	3
ENGR 1304	*or* Engineering Graphics I (3 SCH Version) [3]	
DFTG 1333	Mechanical Drafting [4]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	12

Semester 3		**Credits**
DFTG 1358	Electrical/Electronics Drafting [5]	3
DFTG 2302	Machine Drafting [6]	3
DFTG 2323	Pipe Drafting [7]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	12

Semester 4		**Credits**
DFTG 2335	Advanced Technologies in Mechanical Design and Drafting [8]	3
DFTG 2357	Advanced Technologies in Pipe Design and Drafting [9]	3
DFTG 2340	Solid Modeling/Design [10]	3
ACGM X3XX	Gen Ed Speech Elective	3
	Semester Totals	12

Semester 5		**Credits**
DFTG 2306	Machine Design [11]	3
DFTG 1395	Special Topics in Mechanical Drafting and Mech CAD [12]	3
DFTG 2386	*or* Internship - Drafting and Design Technology, General [13]	
DFTG 2350	Geometric Dimensioning and Tolerancing [14]	3
DFTG 2332	Advanced Computer-Aided Drafting [15]	3
	Semester Totals	12
	Program Totals	60

Capstone Course(s):
DFTG 2306 - Machine Design

Prerequisites
[1,4,7,9,13] DFTG 1309 (Prerequisite)
[2] DFTG 1309 (Prerequisite or Corequisite)
[3] MATH 1314
[5] DFTG 1329 (Prerequisite)
[6] DFTG 1333 (Prerequisite)
[8,10] DFTG 2302 (Prerequisite)
[11,12,14] DFTG 2335 (Prerequisite)
[15] DFTG 2340 (Prerequisite)

Health Information Technology

In the Health Information Technology program, students learn skills in collecting, analyzing and maintaining health data, as well as billing and coding. Physicians and other health care professionals need accurate records to treat their patients, and professionals in the health information technology industry make that possible. Health information technology careers are found in a variety of settings, including health care facilities, consulting firms, government agencies, insurance companies, health care IS/IT vendors and pharmaceutical companies, as well as many other environments. For quicker entry into the industry, a certificate program is available in Medical Office Specialist.

Health Information Technology is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100). A grade of C or better is required for all courses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course

Health Information Technology Associate of Applied Science

Semester 1		**Credits**
HITT 1204	IT for Health Professions	2
HITT 1301	Health Data Content and Structure	3
HITT 1305	Medical Terminology I	3
BIOL 2401	Anatomy & Physiology I (lecture + lab)	4
BIOL 2101	*or* Anatomy & Physiology I (lab)	
BIOL 2301	*and* Anatomy & Physiology I (lecture)	
	Semester Totals	12

Semester 2		**Credits**
HITT 1253	Legal and Ethical Aspects of Health Information	2
HITT 1341	Coding and Classification Systems	3
HITT 1345	Health Care Delivery Systems	3
BIOL 2402	Anatomy & Physiology II (lecture + lab)	4
BIOL 2102	*or* Anatomy & Physiology II (lab)	
BIOL 2302	*and* Anatomy & Physiology II (lecture)	
	Semester Totals	12

Semester 3		**Credits**
HITT 1311	Health Information Systems	3
HITT 1342	Ambulatory Coding	3
MDCA 1302	Human Disease/Pathophysiology	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	12

Semester 4		**Credits**
HITT 2335	Coding and Reimbursement Methodologies [1]	3
HITT 2339	Health Information Organization and Supervision	3
HITT 2443	Quality Assessment and Performance Improvement	4
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	13

Semester 5		**Credits**
HITT 2249	RHIT Competency Review	2
HITT 2346	Advanced Medical Coding [2]	3
HITT 2366	Practicum (or Field Experience) - Health Information/Medical Records Technology/ Technician	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	11
	Program Totals	60

Capstone Course(s):
HITT 2366 - Practicum (or Field Experience) - Health Information/ Medical Records Technology/Technician

Prerequisites
[1] HITT 1341
[2] HITT 1341, HITT 1342

Medical Office Specialist Certificate 2

Semester 1		**Credits**
HITT 1204	IT for Health Professions	2
HITT 1301	Health Data Content and Structure	3
HITT 1305	Medical Terminology I	3
MDCA 1302	Human Disease/Pathophysiology	3
	Semester Totals	11

Semester 2		**Credits**
HITT 1253	Legal and Ethical Aspects of Health Information	2
HITT 1341	Coding and Classification Systems	3
HITT 1342	Ambulatory Coding	3
BIOL 2401	Anatomy & Physiology I (lecture + lab)	4
BIOL 2101	*or* Anatomy & Physiology I (lab)	
BIOL 2301	*and* Anatomy & Physiology I (lecture)	
	Semester Totals	12

Semester 3		**Credits**
HITT 1311	Health Information Systems	3
HITT 2335	Coding and Reimbursement Methodologies [1]	3
HITT 2366	Practicum (or Field Experience) - Health Information/Medical Records Technology/ Technician	3
BIOL 2402	Anatomy & Physiology II (lecture + lab)	4
BIOL 2102	*or* Anatomy & Physiology II (lab)	
BIOL 2302	*and* Anatomy & Physiology II (lecture)	
	Semester Totals	13
	Program Totals	36

Capstone Course(s):
HITT 2366 - Practicum (or Field Experience) - Health Information/ Medical Records Technology/Technician

Prerequisites
[1] HITT 1341

Heating, Ventilation & Air Conditioning Technology

TSTC offers hands-on training to teach students of Heating, Ventilation & Air Conditioning Technology the skills needed to enter the industry. The program is backed by experienced faculty, many of whom are active members of professional organizations such as North American Technician Excellence and Air Conditioning Contractors of America, and is guided by an advisory board of current industry members, ensuring that students get the latest training available. The laboratory facilities at TSTC include high efficiency commercial and residential heating and air conditioning equipment, energy efficient heat pumps, commercial refrigeration equipment, direct digital and pneumatic controls, and a 200-ton chilled water system.

Heating, Ventilation & Air Conditioning Technology is a Performance-Based Education (PBE) program.

Heating, Ventilation & Air Conditioning Technology is available at East Williamson County, Fort Bend County, Harlingen, North Texas and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

TSTC 1102 will be required for the students on the Harlingen campus, but is available statewide. See your program advisor for more information.

HVAC Technology
Associate of Applied Science

Semester 1		**Credits**
HART 1301	Basic Electricity for HVAC	3
HART 1307	Refrigeration Principles	3
HART 1310	HVAC Shop Practices and Tools	3
HART 1345	Gas and Electric Heating [1]	3
	Semester Totals	**12**

Semester 2		**Credits**
HART 1303	Air Conditioning Control Principles [2]	3
HART 1341	Residential Air Conditioning [3]	3
HART 2342	Commercial Refrigeration [4]	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	**12**

Semester 3		**Credits**
HART 2331	Advanced Electricity for HVAC [5]	3
HART 2336	Air Conditioning Troubleshooting [6]	3
HART 2341	Commercial Air Conditioning [7]	3
HART 2349	Heat Pumps [8]	3
	Semester Totals	**12**

Semester 4		**Credits**
HART 2343	Industrial Air Conditioning [9]	3
HART 2345	Residential Air Conditioning Systems Design [10]	3
ENGL 1301	Composition I	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**12**

Semester 5		**Credits**
HART 2334	Advanced Air Conditioning Controls [11]	3
HART 2350	*or* HVAC Zone Controls [12]	
HART 2358	Testing, Adjusting, and Balancing HVAC Systems [13]	3
HART 2357	*or* Specialized Commercial Refrigeration [14]	
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**12**

	Program Totals	**60**

Capstone Course(s):
HART 2345 - Residential Air Conditioning Systems Design

Prerequisites
[1,2] HART 1301 (Prerequisite or Corequisite)
[3] HART 1301, HART 1307
[4] HART 1307
[5] HART 1303
[6] HART 1303, HART 1345, HART 1341 (Prerequisite or Corequisite)
[7] HART 1303, HART 1341
[8] HART 1303, HART 1341 (Prerequisite or Corequisite)
[9,10,11,12,14] HART 2336
[13] HART 2331

HVAC Technician
Certificate 1

Semester 1		Credits
HART 1301	Basic Electricity for HVAC	3
HART 1307	Refrigeration Principles	3
HART 1310	HVAC Shop Practices and Tools	3
HART 1345	Gas and Electric Heating [1]	3
	Semester Totals	**12**

Semester 2		Credits
HART 1303	Air Conditioning Control Principles [2]	3
HART 1341	Residential Air Conditioning [3]	3
HART 2338	Air Conditioning Installation and Startup	3
CNBT 1302	*or* Mechanical, Plumbing & Electrical Systems in Construction I	
HART 2342	Commercial Refrigeration [4]	3
	Semester Totals	**12**

Semester 3		Credits
HART 2331	Advanced Electricity for HVAC [5]	3
HART 2336	Air Conditioning Troubleshooting [6]	3
HART 2341	Commercial Air Conditioning [7]	3
HART 2349	Heat Pumps [8]	3
	Semester Totals	**12**
	Program Totals	**36**

Capstone Course(s):
HART 2336 - Air Conditioning Troubleshooting

Prerequisites
[1,2] HART 1301 (Prerequisite or Corequisite)
[3] HART 1301, HART 1307
[4] HART 1307
[5] HART 1303
[6] HART 1303, HART 1345, HART 1341 (Prerequisite or Corequisite)
[7] HART 1303, HART 1341
[8] HART 1303, HART 1341 (Prerequisite or Corequisite)

HVAC Residential Service Technician
Certificate 1

Semester 1		Credits
HART 1301	Basic Electricity for HVAC	3
HART 1307	Refrigeration Principles	3
HART 1310	HVAC Shop Practices and Tools	3
HART 1345	Gas and Electric Heating [1]	3
HART 1303	Air Conditioning Control Principles [2]	3
	Semester Totals	**15**

Semester 2		Credits
HART 1341	Residential Air Conditioning [3]	3
HART 2338	Air Conditioning Installation and Startup	3
HART 2336	Air Conditioning Troubleshooting [4]	3
HART 2349	Heat Pumps [5]	3
	Semester Totals	**12**
	Program Totals	**27**

Capstone Course(s):
HART 2336 - Air Conditioning Troubleshooting

Prerequisites
[1,2] HART 1301 (Prerequisite or Corequisite)
[3] HART 1301, HART 1307
[4] HART 1303, HART 1345, HART 1341 (Prerequisite or Corequisite)
[5] HART 1303, HART 1341 (Prerequisite or Corequisite)

Basic HVAC OSA
Occupational Skills Award - East Williamson County

Semester 1		Credits
HART 1301	Basic Electricity for HVAC	3
HART 1307	Refrigeration Principles	3
HART 1310	HVAC Shop Practices and Tools	3
	Total	**9**

Industrial Systems

The Industrial Systems program is designed by industry experts and employers. The courses in this program are directed at cutting-edge mechanical and electrical operations, providing you with knowledge and skills in hydraulics, pneumatics, pumps and compressors, machinery installation and alignment, motor controls, machine shop, power transmissions and troubleshooting. The classroom learning is supplemented with hands-on training utilizing equipment to provide you with the skills and technical background needed to be successful in most industrial environments. Students can choose a general Industrial Systems track or specialize in Electrical Industrial Systems. For quicker entry into the industry, general and electrical industrial systems certificates are also available.

Industrial Systems is available at the Abilene, East Williamson County, Fort Bend County, Marshall, North Texas and Waco campuses.

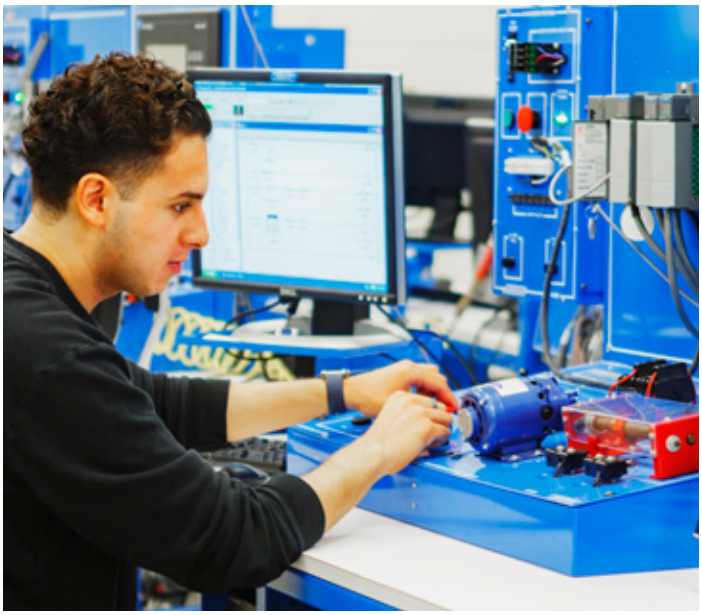
First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Industrial Systems-Electrical Specialization Associate of Applied Science - Marshall, North Texas only

Semester 1		**Credits**
DFTG 1325	Blueprint Reading and Sketching	3
ELPT 1311	Basic Electrical Theory	3
INMT 1305	Introduction to Industrial Maintenance	3
WLDG 1391	Special Topics in Welder/Welding Technologist	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	15

Semester 2		**Credits**
ELPT 1341	Motor Control [1]	3
HART 1356	EPA Recovery Certification Preparation	3
HYDR 1305	Basic Hydraulics	3
INMT 2303	Pumps, Compressors & Mechanical Drives [2]	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	15

Semester 3		**Credits**
ELPT 1345	Commercial Wiring	3
ELPT 2319	Programmable Logic Controllers I [3]	3
INMT 2301	Machinery Installation [4]	3
RBTC 1309	Pneumatics [5]	3
ENGL 1301	Composition I	3
	Semester Totals	15



Semester 4		**Credits**
ELPT 1351	Electrical Machines [6]	3
ELPT 2331	AC/DC Drives	3
INMT 2345	Industrial Troubleshooting [7]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	15
	Program Totals	60

Capstone Course(s):
INMT 2345 - Industrial Troubleshooting

Prerequisites
[1] AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371
[2,4] INMT 1305
[3] ELPT 1341 (Prerequisite or Corequisite)
[5] HYDR 1305
[6,7] ELPT 1341

Industrial Systems Mechanic Certificate 1 - Abilene, East Williamson County, Fort Bend County, Waco only

Semester 1		**Credits**
DFTG 1325	Blueprint Reading and Sketching	3
ELPT 1311	Basic Electrical Theory	3
HYDR 1301	Rigging and Conveying Systems	3
INMT 1305	Introduction to Industrial Maintenance	3
	Semester Totals	12

Semester 2		**Credits**
CBFM 1303	Boiler Maintenance	3
ELPT 1341	Motor Control [1]	3
HYDR 1305	Basic Hydraulics	3
INMT 2303	Pumps, Compressors & Mechanical Drives [2]	3
	Semester Totals	12

Semester 3		Credits
INMT 1355	Industrial Power Plant Systems [3]	3
INMT 2301	Machinery Installation [4]	3
PFPB 2308	Piping Standards and Materials	3
RBTC 1309	Pneumatics [5]	3
	Semester Totals	12
	Program Totals	36

Capstone Course(s):
INMT 1355 - Industrial Power Plant Systems

Prerequisites
[1] AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371, [2,3,4] INMT 1305, [5] HYDR 1305

Industrial Systems Mechanic-Electrical Certificate 2 - Marshall, North Texas only

Semester 1		Credits
DFTG 1325	Blueprint Reading and Sketching	3
ELPT 1311	Basic Electrical Theory	3
INMT 1305	Introduction to Industrial Maintenance	3
WLDG 1391	Special Topics in Welder/Welding Technologist	3
	Semester Totals	12

Semester 2		Credits
ELPT 1341	Motor Control [1]	3
HART 1356	EPA Recovery Certification Preparation	3
HYDR 1305	Basic Hydraulics	3
INMT 2303	Pumps, Compressors & Mechanical Drives [2]	3
	Semester Totals	12

Semester 3		Credits
ELPT 1345	Commercial Wiring	3
ELPT 2319	Programmable Logic Controllers I [3]	3
INMT 2301	Machinery Installation [4]	3
RBTC 1309	Pneumatics [5]	3
	Semester Totals	12

Semester 4		Credits
ELPT 1351	Electrical Machines [6]	3
ELPT 2331	AC/DC Drives	3
INMT 2345	Industrial Troubleshooting [7]	3
	Semester Totals	9
	Program Totals	45

Capstone Course(s):
INMT 2345 - Industrial Troubleshooting

Prerequisites
[1] AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371, [2,4] INMT 1305, [3] ELPT 1341 (Prerequisite or Corequisite), [5] HYDR 1305, [6,7] ELPT 1341

Industrial Systems - Mechanical Specialization Associate of Applied Science - Abilene, East Williamson County, Fort Bend County, Waco only

Semester 1		Credits
DFTG 1325	Blueprint Reading and Sketching	3
ELPT 1311	Basic Electrical Theory	3
HYDR 1301	Rigging and Conveying Systems	3
INMT 1305	Introduction to Industrial Maintenance	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	15

Semester 2		Credits
CBFM 1303	Boiler Maintenance	3
ELPT 1341	Motor Control [1]	3
HYDR 1305	Basic Hydraulics	3
INMT 2303	Pumps, Compressors & Mechanical Drives [2]	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	15

Semester 3		Credits
ELPT 2319	Programmable Logic Controllers I [3]	3
INMT 1355	Industrial Power Plant Systems [4]	3
INMT 2301	Machinery Installation [5]	3
PFPB 2308	Piping Standards and Materials	3
RBTC 1309	Pneumatics [6]	3
	Semester Totals	15

Semester 4		Credits
ENTC 1349	Reliability and Maintainability	3
INMT 2345	Industrial Troubleshooting [7]	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical and Business Writing	
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	15
	Program Totals	60

Capstone Course(s):
INMT 2345 - Industrial Troubleshooting

Prerequisites
[1] AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371, [2,4,5] INMT 1305
[3] ELPT 1341 (Prerequisite or Corequisite), [6] HYDR 1305, [7] ELPT 1341

Basic Industrial Systems OSA Occupational Skills Award - Waco, Hybrid only

Semester 1		Credits
INMT 1305	Introduction to Industrial Maintenance	3
DFTG 1325	Blueprint Reading and Sketching	3
HYDR 1301	Rigging and Conveying Systems	3
	Total	9

Basic Industrial Systems Electrical OSA Occupational Skills Award - Marshall, Hybrid only

Semester 1		Credits
ELPT 1311	Basic Electrical Theory	3
ELPT 1341	Motor Control	3
ELPT 1345	Commercial Wiring	3
	Total	9

Instrumentation Technology*

Instrumentation is the science of measurement and control, including the variables of process control such as pressure, level, temperature and flow rates. These variables are used in all automated processes in power generation, oil refineries, chemical plants, food processing, pharmaceuticals, cosmetics, building environmental control and more.

Instrumentation is a vital part of any production or manufacturing plant, and it is the job of an instrument tech to keep these running. TSTC Instrumentation graduates are field-ready and qualified to go to work with minimum on-the-job training.

Instrumentation Technology is available at the Waco campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

*This program is eligible for a Money-Back Guarantee. Visit page 95 for more details.

Instrumentation Technology Associate of Applied Science

Semester 1		**Credits**
CETT 1303	DC Circuits	3
DFTG 1313	Drafting for Specific Occupations	3
INTC 1305	Introduction to Instrumentation [1]	3
MATH 1316	Plane Trigonometry	3
	Semester Totals	**12**

Semester 2		**Credits**
CETT 1305	AC Circuits [2]	3
ELPT 1341	Motor Control [3]	3
INTC 1341	Principles of Automatic Control	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	**12**

Semester 3		**Credits**
INTC 1355	Unit Operations [4]	3
INTC 2336	Distributed Control and Programmable Logic [5]	3
RBTC 1301	Programmable Logic Controllers [6]	3
PHYS 1310	Elementary Physics	3
PHYS 1315	*or* Physical Science I (lecture)	
	Semester Totals	**12**

Semester 4		**Credits**
INTC 1350	Digital Measurement and Controls [7]	3
INTC 1356	Instrumentation Calibration [8]	3
INTC 2333	Instrumentation Systems Installation [9]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**12**

Semester 5		**Credits**
INTC 1348	Analytical Instrumentation [10]	3
INTC 2310	Principles of Industrial Measurements II [11]	3
INTC 2350	Fieldbus Process Control Systems [12]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**12**
	Program Totals	60

Capstone Course(s):
INTC 2350 - Fieldbus Process Control Systems

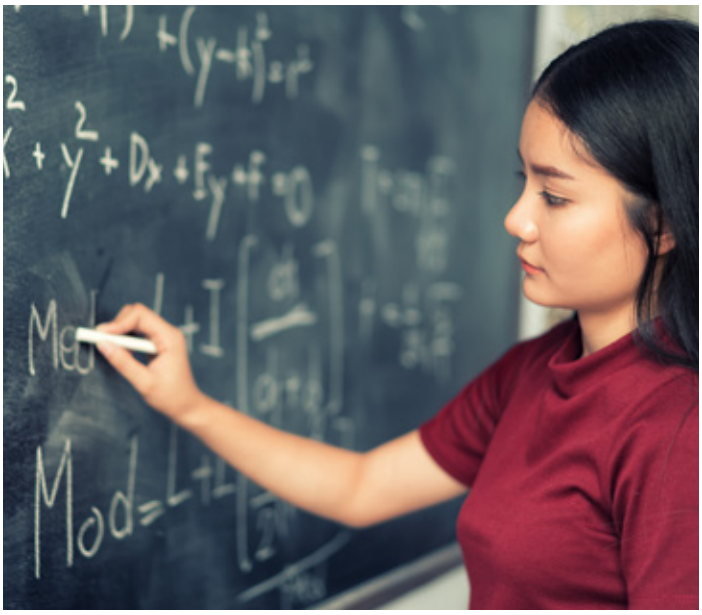
Prerequisites
[1] CETT 1303 (Prerequisite or Corequisite)
[2] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
[3] AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371
[4,10] INTC 1341
[5] RBTC 1301 (Prerequisite or Corequisite)
[6] ELPT 1341
[7] RBTC 1301
[8,9,11] INTC 1355
[12] INTC 2333

Mathematics

The Mathematics department supports and enhances TSTC's technical education mission. It provides Texas industry with employees who perform well at the entry level by their competence in mathematics and problem-solving techniques using principles of physics and mathematics; prepares graduates for advancement in the workplace through the acquisition of science- and mathematics-based problem-solving skills; and facilitates progress toward successful completion of further educational goals and/or lifelong learning experiences.

Mathematics is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.



Mathematics
Associate of Science

Semester 1		**Credits**
MATH 2312	Pre-Calculus Math (3 SCH version) [1]	3
ENGL 1301	Composition I	3
ACGM X3XX	Creative Arts Elective	3
	Semester Totals	9

Semester 2		**Credits**
MATH 2413	Calculus I (4 SCH version) [2]	4
ENGL 1302	Composition II [3]	3
GOVT 2305	Federal Government (Federal constitution & topics)	3
ACGM X3XX	Life and Physical Science Elective	3
	Semester Totals	13

Semester 3		**Credits**
MATH 2414	Calculus II (4 SCH version) [4]	4
GOVT 2306	Texas Government (Texas constitution & topics)	3
ACGM X3XX	Life and Physical Science Elective	3
ACGM X3XX	Language, Philosophy and Culture Elective	3
	Semester Totals	13

Semester 4		**Credits**
MATH 2415	Calculus III (4 SCH version) [5]	4
SPCH X3XX	Gen Ed Speech Elective	3
HIST 1301	United States History I	3
ACGM X3XX	Component Area Option*	3
	Semester Totals	13

Semester 5		**Credits**
HIST 1302	United States History II	3
MATH 2320	Differential Equations (3 SCH version) [6]	3
MATH X3XX	Gen Ed Mathematics Elective **	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	12
	Program Totals	60

Capstone Course(s):
MATH 2320 - Differential Equations

Mathematics Elective (3 hours)**

MATH 1316	Plane Trigonometry	3
MATH 1332	Contemporary Mathematics (Quantitative Reasoning)	3
MATH 1342	Elementary Statistical Methods	3
MATH 2318	Linear Algebra [7]	3

Component Area Option *

BIOL 1106	Biology for Science Majors Laboratory I (lab) [8]	1
BIOL 1107	Biology for Science Majors II Lab [9]	1
BIOL 1108	Biology Non-Science Majors Laboratory I [10]	1
BIOL 1109	Biology for Non-Science Majors II Lab [11]	1
BIOL 2101	Anatomy & Physiology I (lab)	1
BIOL 2102	Anatomy & Physiology II (lab)	1
CHEM 1111	General Chemistry I (lab) [12]	1
CHEM 1112	General Chemistry II (lab) [13]	1
ENGL 2321	British Literature [14]	3
ENGL 2326	American Literature [15]	3
ENGL 2331	World Literature [16]	3
PHYS 1101	College Physics Laboratory I [17]	1
PHYS 1102	College Physics Lab II [18]	1
PHYS 1115	Physical Science Lab I	1
PHYS 1117	Physical Science Lab II	1
SPCH 1311	Introduction to Speech Communication	3
SPCH 1315	Public Speaking	3
SPCH 1318	Interpersonal Communication	3
SPCH 1321	Business & Professional Communication	3

Prerequistes
[1] MATH 1314 or MATH 1316
[2] MATH 1316 or MATH 2312 or MATH 2412
[3,14,15,16] ENGL 1301
[4] MATH 2413
[5,6] MATH 2414
[7] MATH 2314 or MATH 2414
[8] BIOL 1306 (Prerequisite or Corequisite)
[9] BIOL 1307 (Prerequisite or Corequisite)
[10] BIOL 1308 (Prerequisite or Corequisite)
[11] BIOL 1309 (Prerequisite or Corequisite)
[12] CHEM 1311 (Corequisite)
[13] CHEM 1312 (Corequisite)
[17] PHYS 1301 (Corequisite)
[18] PHYS 1302 (Corequisite)

Mechatronics Technology

Because industrial applications are becoming increasingly multidisciplinary, today's technicians need skills that cross a variety of disciplines. Mechatronics courses combine various disciplines to teach students a holistic approach to developing solutions for engineering applications. Skills found under the Mechatronics Technology umbrella include practical knowledge in the integration of electrical systems, fluid power, electronics, computer controls, PLCs, instrumentation, robotics and information technology.

Mechatronics Technology is available at the Harlingen campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Mechatronics Technology
Associate of Applied Science

Semester 1		**Credits**
CETT 1303	DC Circuits	3
MECH 1370	Introduction to Mechatronics	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra (3 SCH version)	3
	Semester Totals	12

Semester 2		**Credits**
CETT 1305	AC Circuits [1]	3
MECH 1371	Industry Digital Devices [2]	3
MECH 1471	Hydraulic and Pneumatic Systems	4
SPCH X3XX	Gen Ed Speech Elective	3
	Semester Totals	13

Semester 3		**Credits**
MECH 1372	Basic Programmable Logic Controllers [3]	3
MECH 1373	Motion Control [4]	3
MECH 2374	Robotics Communication	3
MECH 2472	Communication Protocols	4
	Semester Totals	13

Semester 4		**Credits**
MECH 2370	Industrial Process Controls [5]	3
MECH 2372	Essentials to Advance PLC [6]	3
MECH 2375	Production Control [7]	3
MECH 2471	Industrial Control Devices [8]	4
	Semester Totals	13

Semester 5		**Credits**
MECH 2378	Internship	3
MECH 2373	*or* Industry 4.0 Project [9]	
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	9
	Program Totals	60

Capstone Course(s):
MECH 2373 - Industry 4.0 project

Prerequisites
[1] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
[2] CETT 1303
[3,4,5,7] CETT 1305
[6] MECH 1372
[8] MECH 1373
[9] MECH 2472, MECH 1373

Basic Electromechanical Automation (PLC) OSA
Occupational Skills Award

Semester 1		**Credits**
CETT 1303	DC Circuits	3
CETT 1305	AC Circuits [1]	3
MECH 1372	Basic Programmable Logic Controllers [2]	3
	Total	9

Prerequisites
[1] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)*
[2] CETT 1305*

*OSA may be exempt from requisite. Consult with the department.

Occupational Safety and Environmental Compliance Technology

The Occupational Safety and Environmental Compliance Technology (OSE) offers in-depth study of Occupational Safety and Health Administration regulations, Environmental Protection Agency regulations, and other pertinent federal, state and local standards. Safety and environmental compliance professionals are responsible for interpreting and implementing regulations, policies and procedures, as well as enforcing government safety and environmental mandates. Compliance professionals use the knowledge gained through the OSE program to develop, improve and manage a company's safety and environmental system to prevent injuries, reduce accidents and protect the environment while minimizing the impact to economic progress.

The Occupational Safety and Environmental Compliance Technology curriculum includes instruction on hazardous waste operations; compliance with regulatory agencies, including submitting regulatory reports and documents; conducting safety training; and performing inspections and compliance audits. Students also learn how to develop OSHA- and EPA-related programs such as hazard communication, permit-required confined space entry, respiratory protection, lockout/tagout, environmental sampling plans, stormwater pollution prevention plans, phase I site assessments, and emergency response plans. Students will learn to anticipate, recognize, evaluate and control industrial health hazards to help build and maintain a safe work culture and protect the environment.

Occupational Safety Compliance Technology is available at the Breckenridge, Fort Bend County and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Occupational Safety and Environmental Compliance Technology
Associate of Applied Science

Semester 1		**Credits**
EPCT 1205	Environmental Regulations Overview	2
EPCT 1307	Introduction to Environmental Safety and Health	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	11

Semester 2		**Credits**
OSHT 1313	Accident Prevention/Investigation	3
ITSC 1309	Integrated Software Applications I	3
OSHT 2401	OSHA Regulations - General Industry	4
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	13

Semester 3		**Credits**
EPCT 2331	Industrial Hygiene Applications	3
OSHT 1305	OSHA Regulations - Construction Industry	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	12

Semester 4		**Credits**
EPCT 1243	Treatment, Remediation, and Disposal Techniques	2
EPCT 2337	Site Assessment	3
EPCT 1344	Environmental Sampling and Analysis	3
OSHT 1209	Physical Hazards	2
OSHT 2209	Safety Program Management	2
	Semester Totals	12

Semester 5		**Credits**
EPCT 1301	Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics	3
OSHT 2370	First Aid	3
OSHT 2388	Internship	3
OSHT 2320	Safety Training Presentation Techniques	3
	Semester Totals	12
	Program Totals	60

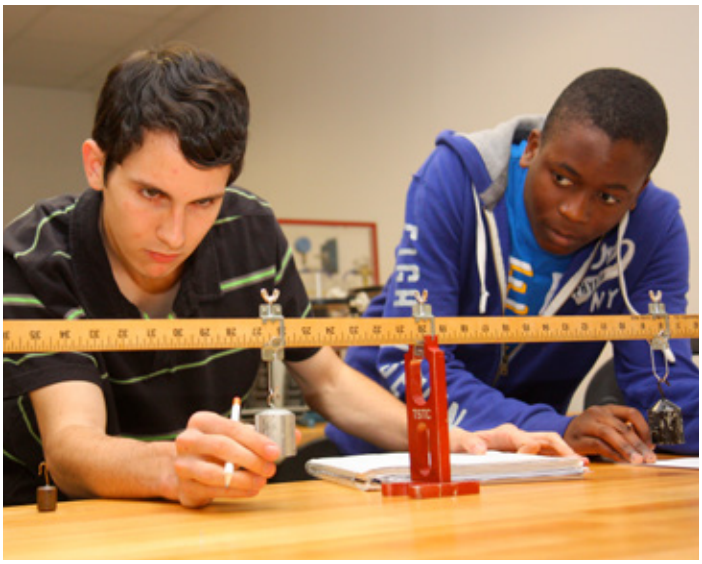
Capstone Course(s):
OSHT 2320 - Safety Training Presentation Techniques

Physics

The Associate of Science degree in Physics is intended for students planning to transfer to a college or university in order to obtain a bachelor's degree in Physics or a physics-related discipline, such as astronomy, geophysics or any engineering field.

Physics is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.



Physics
Associate of Science

Semester 1		**Credits**
ENGL 1301	Composition I	3
MATH 2312	Pre-Calculus Math (3 SCH version) [1]	3
ACGM X3XX	Creative Arts Elective	3
	Semester Totals	**6**

Semester 2		**Credits**
ENGL 1302	Composition II [2]	3
CHEM 1111	General Chemistry I (lab) [3]	1
CHEM 1311	General Chemistry I (lecture) [4]	3
GOVT 2305	Federal Government (Federal constitution & topics)	3
MATH 2413	Calculus I (4 SCH version) [5]	4
	Semester Totals	**14**

Semester 3		**Credits**
CHEM 1112	General Chemistry II (lab) [6]	1
CHEM 1312	General Chemistry II (lecture) [7]	3
GOVT 2306	Texas Government (Texas constitution & topics)	3
MATH 2414	Calculus II (4 SCH version) [8]	4
ACGM X3XX	Language, Philosophy and Culture Elective	3
	Semester Totals	**14**

Semester 4		**Credits**
HIST 1301	United States History I	3
PHYS 2125	University Physics Laboratory I (lab) [9]	1
PHYS 2325	University Physics I (lecture) [10]	3
SPCH X3XX	Gen Ed Speech Elective	3
ACGM X3XX	Component Area Option*	3
	Semester Totals	**13**

Semester 5		**Credits**
HIST 1302	United States History II	3
PHYS 2126	University Physics Laboratory II (lab) [11]	1
PHYS 2326	University Physics II (lecture) [12]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**10**

	Program Totals	**57**

Capstone Course(s):
PHYS 2126 - University Physics Laboratory II (lab)
PHYS 2326 - University Physics II (lecture)

Component Area Option*

BIOL 1106	Biology for Science Majors Laboratory I (lab) [13]	1
BIOL 1107	Biology for Science Majors II Lab [14]	1
BIOL 1108	Biology Non-Science Majors Laboratory I [15]	1
BIOL 1109	Biology for Non-Science Majors II Lab [16]	1
BIOL 2101	Anatomy & Physiology I (lab)	1
BIOL 2102	Anatomy & Physiology II (lab)	1
CHEM 1111	General Chemistry I (lab) [17]	1
CHEM 1112	General Chemistry II (lab) [18]	1
ENGL 2321	British Literature [19]	3
ENGL 2326	American Literature [20]	3
ENGL 2331	World Literature [21]	3
PHYS 1101	College Physics Laboratory I [22]	1
PHYS 1102	College Physics Lab II [23]	1
PHYS 1115	Physical Science Lab I	1
PHYS 1117	Physical Science Lab II	1
SPCH 1311	Introduction to Speech Communication	3
SPCH 1315	Public Speaking	3
SPCH 1318	Interpersonal Communication	3
SPCH 1321	Business & Professional Communication	3

Prerequisites
[1] MATH 1314
[2,19,20,21] ENGL 1301
[3,17] CHEM 1311 (Corequisite)
[4] MATH 1314 (Prerequisite), CHEM 1111 (Corequisite)
[5] MATH 1316 or MATH 2312 or MATH 2412
[6,18] CHEM 1312 (Corequisite)
[7] CHEM 1111, CHEM 1311 (Prerequisite), CHEM 1112 (Prerequisite or Corequisite)
[8] MATH 2413
[9] PHYS 2325 (Corequisite)
[10] MATH 2413 (Prerequisite), PHYS 2125 (Corequisite)
[11] PHYS 2326 (Prerequisite or Corequisite)
[12] PHYS 2325, MATH 2414 (Prerequisite), PHYS 2126 (Corequisite)
[13] BIOL 1306 (Prerequisite or Corequisite)
[14] BIOL 1307 (Prerequisite or Corequisite)
[15] BIOL 1308 (Prerequisite or Corequisite)
[16] BIOL 1309 (Prerequisite or Corequisite)
[22] PHYS 1301 (Corequisite)
[23] PHYS-1302 (Corequisite)

Plumbing & Pipefitting Technology

Plumbing & Pipefitting Technology is designed to help students learn the ins and outs of this important, well-paying field. This specialization can help you get in and on your way in a hurry through a one-year, intensive training program to help you build the skill base needed to succeed in the industry. The Plumbing & Pipefitting Technology certificate progresses from basic to advanced coursework in plumbing, piping, construction, fabrication and more. And at TSTC, your college credits can count toward the hours needed to obtain a state license.

Plumbing & Pipefitting Technology is available at the Waco campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Plumbing & Pipefitting Technology Certificate 1

Semester 1		**Credits**
PFPB 1306	Basic Blueprint Reading for Plumbers	3
PFPB 1323	Plumbing Codes I	3
PFPB 2308	Piping Standards and Materials	3
PFPB 2309	Residential Construction Plumbing I	3
PFPB 2349	Field Measuring, Sketching, and Layout	3
	Semester Totals	15

Semester 2		**Credits**
PFPB 1321	Plumbing Maintenance and Repair	3
PFPB 1347	Backflow Prevention	3
PFPB 2336	Commercial Construction and Fixture Setting	3
PFPB 2343	Advanced Pipe Practices	3
	Semester Totals	12

Semester 3		**Credits**
PFPB 1682	Cooperative Education - Plumbing Technology/Plumber	6
	Semester Totals	6
	Program Totals	33

Capstone Course(s):
PFPB 1682 - Cooperative Education - Plumbing Technology/Plumber

Basic Plumbing OSA Occupational Skills Award

Semester 1		**Credits**
PFPB 1323	Plumbing Codes	3
PFPB 2308	Piping Standards & Materials	3
PFPB 2309	Residential Construction Plumbing	3
	Total	9

Precision Machining Technology

Persons interested in becoming machinists should be mechanically inclined and have good problem-solving abilities. They must be able to work independently and perform highly precise and accurate work that requires concentration and physical effort. Precision Machining Technology at TSTC guides students through a series of machine operation courses to develop and challenge their skills using conventional and Computer Numerical Controlled (CNC) machines. Students also learn about the various materials used in today's manufacturing industry. Machinists use the following machines: horizontal and vertical mills, engine lathes, drill presses, saws, heat treat furnaces, and surface and pedestal grinders. Students learn to program and operate computer-aided machines such as CNC mills and lathes, and learn related skills such as precision measurement, blueprint reading and the heat treatment of metals. A capstone course challenges the students' creativity by providing them the opportunity to design and build complex machinery.

For quicker entry into the industry, a Machining certificate is also available.

Precision Machining Technology is available at the East Williamson County, Fort Bend County, Harlingen, Marshall, North Texas and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Precision Machining Technology
Associate of Applied Science

Semester 1		**Credits**
MCHN 1300	Beginning Machine Shop	3
MCHN 1302	Print Reading For Machining Trades	3
MCHN 1320	Precision Tools and Measurement	3
MATH 1314	College Algebra (3 SCH version)	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	15

Semester 2		**Credits**
MCHN 1371	Engineering Computer Graphics I	3
MCHN 1438	Basic Machine Shop I [1]	4
MCHN 2303	Fundamentals of Computer Numerical Controlled (CNC) Machine Controls	3
MCHN 2344	Computerized Numerical Control Programming [2]	3
MATH 1316	Plane Trigonometry	3
	Semester Totals	16

Semester 3		**Credits**
MCHN 1326	Introduction to Computer-Aided Manufacturing (CAM) [3]	3
MCHN 1454	Intermediate Machining II [4]	4
MCHN 2335	Advanced CNC Machining [5]	3
ENGL 1301	Composition I	3
	Semester Totals	13

Semester 4		**Credits**
ENTC 2310	Machine Design [6]	3
MCHN 2338	Advanced Computer-Aided Manufacturing (CAM) [7]	3
MCHN 2341	Advanced Machining I [8]	3
MCHN 2471	Specialized Equipment and Processes [9]	4
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	16
	Program Totals	60

Capstone Course(s): ENTC 2310 - Machine Design

Prerequisites
[1] MCHN 1300, [2] MCHN 1302,
[3] MCHN 1371 or DFTG 1309
[4,9] MCHN 1438
[5] MCHN 2303
[6] MCHN 1326, MCHN 1371
[7] MCHN 1326
[8] MCHN 1454

Machining
Certificate 1

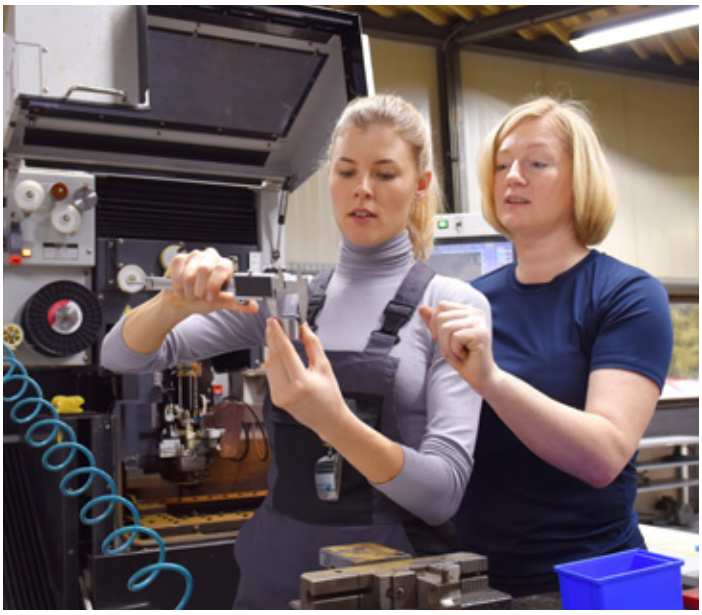
Semester 1		Credits
MCHN 1300	Beginning Machine Shop	3
MCHN 1302	Print Reading For Machining Trades	3
MCHN 1320	Precision Tools and Measurement	3
MCHN 1343	Machine Shop Mathematics	3
	Semester Totals	**12**

Semester 2		Credits
MCHN 1371	Engineering Computer Graphics I	3
MCHN 1438	Basic Machine Shop I [1]	4
MCHN 2303	Fundamentals of Computer Numerical Controlled (CNC) Machine Controls	3
MCHN 2344	Computerized Numerical Control Programming [2]	3
	Semester Totals	**13**

Semester 3		Credits
MCHN 1326	Introduction to Computer-Aided Manufacturing (CAM) [3]	3
MCHN 1454	Intermediate Machining II [4]	4
MCHN 2335	Advanced CNC Machining [5]	3
MCHN 2471	Specialized Equipment and Processes [6]	4
	Semester Totals	**14**
	Program Totals	**39**

Capstone Course(s):
MCHN 2471 - Specialized Equipment and Processes

Prerequisites
[1] MCHN 1300
[2] MCHN 1302
[3] MCHN 1371 or DFTG 1309
[4,6] MCHN 1438
[5] MCHN 2303



Basic Machining OSA
Occupational Skills Award - Fort Bend County, Marshall, Waco, Hybrid only

Semester 1		Credits
MCHN 1300	Beginning Machine Shop	3
MCHN 1302	Print Reading For Machining Trades	3
MCHN 1320	Precision Tools and Measurement	3
	Total	**9**

Process Operations

A process technician is a key member of a team responsible for planning, analyzing and controlling the production of products, from the acquisition of raw materials through the production and distribution of products to customers in a variety of process industries. Process operations technicians are responsible for efficient and safe operation of all process equipment within the plant, monitoring of all process and utility systems and equipment to ensure they operate within their proper parameters, collection of product and utility samples and performing lab analysis to ensure products meet specifications, preparation of equipment and systems for maintenance activities, and more. Process Operations students will learn the function and use of pumps, tanks, valves and instrumentation associated with various process systems; knowledge of process variables, indicators and controllers; troubleshooting tools and troubleshooting steps to solve problems in a simple process system. They will be able to demonstrate the proper use of safety, health and environmental equipment.

Process Operations is available at the Marshall campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Process Operations
Associate of Applied Science

Semester 1		Credits
PTAC 1302	Introduction To Process Technology	3
PTAC 1308	Safety, Health, and Environment I	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra (3 SCH Version)	3
	Semester Totals	**12**

Semester 2		Credits
DFTG 1325	Blueprint Reading and Sketching	3
PTAC 1332	Process Instrumentation I	3
PTAC 2314	Principles of Quality	3
SCIT 1318	Applied Physics	3
	Semester Totals	**12**

Semester 3		Credits
PTAC 1410	Process Technology I - Equipment [1]	4
PTAC 2420	Process Technology II - Systems [2]	4
SCIT 1414	Applied General Chemistry I	4
	Semester Totals	**12**

Semester 4		Credits
PTAC 2438	Process Technology III - Operations	4
PTAC 2446	Process Troubleshooting	4
PTRT 1401	Introduction to Petroleum Industry	4
PTAC 1454	*or* Industrial Processes	
	Semester Totals	**12**

Semester 5		Credits
BMGT 2347	Critical Thinking and Problem Solving	3
PTAC 2387	*or* Internship - Process Technology/Technician	
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**12**
	Program Totals	60

Capstone Course(s):
PTAC 2446 - Process Troubleshooting
PTAC 2438 - Process Technology III - Operations

Prerequisites
[1] PTAC 1332
[2] PTAC 1410 (Prerequisite or Corequisite)

Robotics Technology

TSTC's Robotics Technology program prepares students for a job in this exploding career field. This option emphasizes the study of complex mechanical systems in computer-integrated manufacturing or CIM environments. Focusing on automated manufacturing processes and the role of robots and associated supporting equipment, coursework covers motion programming, vision and conveyor systems, computer networking, PLC programming, automated sorting, sensor systems, and computer integration.

Robotics Technology is available at the Fort Bend County and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Robotics Technology
Associate of Applied Science

Semester 1		**Credits**
CETT 1303	DC Circuits	3
DFTG 1309	Basic Computer-Aided Drafting	3
RBTC 1343	Robotics [1]	3
MATH 1314	College Algebra (3 SCH version)	3
	Semester Totals	**12**

Semester 2		**Credits**
CETT 1305	AC Circuits [2]	3
ELPT 1341	Motor Control [3]	3
RBTC 1347	Electro-Mechanical Devices [4]	3
ENGL 1301	Composition 1	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	**12**

Semester 3		**Credits**
PHYS 1310	Elementary Physics	3
PHYS 1315	*or* Physical Science I (lecture)	
RBTC 1301	Programmable Logic Controllers [5]	3
RBTC 1355	Sensors [6]	3
RBTC 2339	Robot Programming and Diagnostics [7]	3
	Semester Totals	**12**

Semester 4		**Credits**
RBTC 1341	Vision Systems [8]	3
RBTC 1345	Robot Interfacing [9]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
RBTC 1371	Industrial Motors and Drives [10]	3
CETT 1325	*or* Digital Fundamentals [11]	
	Semester Totals	**12**

Semester 5		**Credits**
RBTC 2375	Human Machine Interface Programming and Interfacing [12]	3
RBTC 2335	*or* Numerical Controlled/Computer Numerical Control Programming [13]	
RBTC 2345	Robot Application, Set-up, and Testing [14]	3
RBTC 2347	Computer Integrated Manufacturing [15]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	**12**
	Program Totals	**60**

Capstone Course(s):
RBTC 2345 - Robot Application, Set-up, and Testing
RBTC 2347 - Computer Integrated Manufacturing

Prerequisites
[1,2] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
[3] AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371
[4,7] RBTC 1343
[5] ELPT 1341
[6] RBTC 2339, RBTC 1347
[8] RBTC 2339
[9] RBTC 2339, RBTC 1347, RBTC 1301
[10] RBTC 1301, ELPT 2341
[11] CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
[12] RBTC 1345, RBTC 1301
[13,14,15] RBTC 1345, RBTC 1355

Solar Energy Technology

Harnessing the sun's power to convert it into electricity is not a new concept, but only in recent years has the technology really taken off. The rising cost of fossil fuels on both the pocketbook and the environment has spurred interest in renewable resources such as solar energy. Perhaps that's why the future looks so bright for those in the solar energy industry. TSTC is one of just a handful of colleges in the nation to offer an associate degree in Solar Energy Technology. TSTC students get access to a live learning lab on the 216-kilowatt solar roof of TSTC's Electronics Center. Combined with knowledgeable, experienced staff and an advisory committee of solar industry professionals, you can get the education and experience you need for a successful, exciting career in Solar Energy Technology.

Solar Energy Technology is available at the Waco campus.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Solar Energy Technology
Associate of Applied Science

Semester 1		**Credits**
CNBT 2317	Green Building	3
ELPT 1311	Basic Electrical Theory	3
RBPT 1370	Building Envelope Inspection	3
SOLR 1371	Introduction to Solar and Alternative Energy Technologies	3
SOLR 2377	Codes for Alternative Energy, Efficiency & Conservation	3
	Semester Totals	15

Semester 2		**Credits**
ELPT 1329	Residential Wiring	3
RBPT 2325	Energy Rating Systems for Homes	3
RBPT 2329	Residential Verification and Rating	3
RBPT 2359	Residential Building Performance Consulting	3
SOLR 1372	Foundations of Solar Photovoltaic Power Generation	3
	Semester Totals	15

Semester 3		**Credits**
ELPT 1345	Commercial Wiring	3
OSHT 1305	OSHA Regulations - Construction Industry	3
ENGL 1301	Composition I	3
ACGM X3XX	Gen Ed Elective	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	15

Semester 4		**Credits**
DFTG 1313	Drafting for Specific Occupations	3
CNBT 1300	*or* Residential and Light Commercial Blueprint Reading	
SOLR 2375	Solar System Design, Installation, Troubleshooting & Repair	3
SOLR 2376	Special Projects in Solar Energy Systems	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	15
	Program Totals	60

Capstone Course(s):
SOLR 2375 - Solar System Design, Installation, Troubleshooting & Repair
SOLR 2376 - Special Projects in Solar Energy Systems

Energy Efficiency Specialist Certificate 1

Semester 1		Credits
CNBT 2317	Green Building	3
RBPT 1370	Building Envelope Inspection	3
SOLR 1371	Introduction to Solar and Alternative Energy Technologies	3
SOLR 2377	Codes for Alternative Energy, Efficiency & Conservation	3
	Semester Totals	**12**

Semester 2		Credits
OSHT 1305	OSHA Regulations - Construction Industry	3
RBPT 2325	Energy Rating Systems for Homes	3
RBPT 2329	Residential Verification and Rating	3
RBPT 2359	Residential Building Performance Consulting	3
	Semester Totals	**12**
	Program Totals	**24**

Capstone Course(s):
RBPT 2359 - Residential Building Performance Consulting

Surgical Technology

Surgical technologists assist in operations under the supervision of surgeons, registered nurses or other surgical personnel. Before an operation, surgical technologists help set up the operating room with surgical instruments, equipment and sterile solutions. During surgery, technologists pass instruments and other sterile supplies to surgeons and surgeon assistants. They may hold retractors, cut sutures, and help count sponges, needles, supplies and instruments. Surgical technologists help prepare, care for and dispose of specimens taken for laboratory analysis and may help apply dressings. This program provides classroom education and supervised clinical experience. Studies cover the care and safety of patients during surgery, aseptic techniques and surgical procedures. Students also learn to sterilize instruments, prevent and control infection, and handle special drugs, solutions, supplies and equipment. Surgical technologists must possess manual dexterity to handle instruments efficiently and quickly. They also must be conscientious, orderly, and emotionally stable to handle the demands of the operating room environment. Technologists must respond quickly and have a full understanding of the procedures so that they may anticipate the needs of surgeons without having to be asked for instruments or supplies.

Surgical Technology is available at the Harlingen campus through a hybrid format using online learning for content delivery, and face-to-face lab training in skills and simulation. Experiential learning will be obtained during clinical in a hospital setting.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Surgical Technology
Associate of Applied Science

Semester 1		**Credits**
HITT 1305	Medical Terminology I	3
BIOL 2301	Anatomy & Physiology I (lecture)	3
BIOL 2101	Anatomy & Physiology I (lab)	1
MATH 1314	College Algebra (3 SCH version)	3
	Semester Totals	10

Semester 2		**Credits**
BIOL 2302	Anatomy & Physiology II (lecture)	3
BIOL 2102	Anatomy & Physiology II (lab)	1
ENGL 1301	Composition I	3
SPCH X3XX	Gen Ed Speech Elective	3
	Semester Totals	10

Semester 3		**Credits**
BIOL 2320	Microbiology for Non-Science Majors (lecture)	3
BIOL 2120	Microbiology for Non-Science Majors Laboratory (lab) [1]	1
PSYC 2301	General Psychology	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	10

Semester 4		**Credits**
SRGT 1405	Introduction to Surgical Technology	4
SRGT 1409	Fundamentals of Perioperative Concepts and Techniques	4
SRGT 1491	Special Topics in Surgical/Operating Room Technician	4
	Semester Totals	12

Semester 5		**Credits**
SRGT 1244	Technological Sciences for the Surgical Technologist	2
SRGT 1441	Surgical Procedures I	4
SRGT 1461	Clinical - Surgical Technology/Technologist [2]	4
	Semester Totals	10

Semester 6		**Credits**
SRGT 1442	Surgical Procedures II	4
SRGT 2462	Clinical - Surgical Technology/Technologist [3]	4
	Semester Totals	8
	Program Totals	60

Capstone Course(s):
SRGT 2462 - Clinical - Surgical Technology/Technologist

Prerequisites
[1] SRGT 1460
[2] SRGT 1461

Visual Communication Technology

Graphic designers are now required to develop design work for many visual communication channels. To succeed in the industry, graphic designers must have a fluent visual vocabulary and be expert practitioners in multiple areas.

In the Visual Communication Technology program, students learn how to reach and influence an audience through advertising design, whether on a billboard, in a magazine ad, in a brochure or in an interactive publication. The program emphasizes project-based courses for both print and digital media to build up portfolios for interviews. Through challenging coursework and internships, students learn up-to-date job skills and knowledge from instructors and industry partners with real-world work experience.

Visual Communication Technology is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Visual Communication Technology
Associate of Applied Science

Semester 1		**Credits**
ARTC 1302	Digital Imaging I	3
ARTC 1305	Basic Graphic Design	3
ENGL 1301	Composition I	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	12

Semester 2		**Credits**
ARTC 1313	Digital Publishing I [1]	3
ARTC 2305	Digital Imaging II [2]	3
ARTC 2317	Typographic Design [3]	3
GRPH 1359	Vector Graphics for Production	3
	Semester Totals	12

Semester 3		**Credits**
ARTC 1310	Design Concepts [4]	3
ARTC 1349	Art Direction I [5]	3
ARTC 2313	Digital Publishing II [6]	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	12

Semester 4		**Credits**
ARTC 1359	Visual Design for New Media [7]	3
ARTC 2348	Digital Publishing III [8]	3
ARTC 2349	Art Direction II [9]	3
ARTC 2388	Internship - Commercial and Advertising Art	3
	Semester Totals	12

Semester 5		**Credits**
ARTC 2333	Publication Design [10]	3
ARTC 2335	Portfolio Development for Graphic Design	3
ACGM X3XX	Gen Ed Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	12
	Program Totals	60

Capstone Course(s):
ARTC 2335 - Portfolio Development for Graphic Design

Prerequisites
[1] ARTC 1302 or ARTC 1305
[2] ARTC 1302
[3] ARTC 1302, ARTC 1305
[4] GRPH 1359, ARTC 2317 (Corequisite)
[5] ARTC 2317, GRPH 1359
[6] ARTC 1305, ARTC 1313
[7,9] ARTC 1349, ARTC 2313
[8] ARTC 2313, GRPH 1359
[10] ARTC 1359

Vocational Nursing

The nursing profession is a large part of the high-demand health care field. In the Vocational Nursing program, students participate in an innovative learning environment that helps develop their caregiving skills. Instruction consists of classroom, simulation learning labs, interactive online sessions, virtual clinicals and on-site health care clinicals. In the simulation learning lab, students practice the skills and techniques introduced in their classes, and they will be challenged to work through real-world scenarios. After time in the simulation learning labs, students move to clinical sites at hospitals, nursing homes and doctors' offices where they experience the reality and pace of the nursing profession.

The Vocational Nursing program is a progressive learning program with each class built on knowledge from previous classes; therefore, it is necessary for the student to pass each class before moving on to the next level. In order to progress in the vocational nursing program, a student must make an average of 80 percent or higher in each nursing course with the exception of A&P I and II where a grade of 70 or higher is acceptable.

Graduates of the Vocational Nursing program have many employment opportunities to consider, such as hospitals, nursing homes, home health care, doctors' offices and insurance companies.

Requirements to enter the nursing programs differ from those of other programs. Limited numbers of students are accepted. The admission rating scale and application packet criteria will be used to determine acceptance. See application packet for details. The Vocational Nursing application packet may be accessed at tstc.edu.

Vocational Nursing is available at the Breckenridge, Harlingen and Sweetwater campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Vocational Nursing Certificate 2

Semester 1		**Credits**
BIOL 2401	Anatomy & Physiology I (lecture + lab)	4
BIOL 2301	*or* Anatomy & Physiology I (lecture)	
BIOL 2101	*and* Anatomy & Physiology I (lab)	
BIOL 2402	Anatomy & Physiology II (lecture + lab)	4
BIOL 2302	*or* Anatomy & Physiology II (lecture)	
BIOL 2102	*and* Anatomy & Physiology II (lab)	
HPRS 1206	Essentials of Medical Terminology	2
	Semester Totals	**10**

Semester 2		**Credits**
VNSG 1261	Clinical - Licensed Practical/Vocational Nurse Training	2
VNSG 1304	Foundations of Nursing	3
VNSG 1331	Pharmacology	3
VNSG 1327	Essentials of Medication Administration	3
VNSG 1402	Applied Nursing Skills I	4
	Semester Totals	**15**

Semester 3		**Credits**
VNSG 1230	Maternal-Neonatal Nursing	2
VNSG 1329	Medical-Surgical Nursing I	3
VNSG 1462	Clinical - Licensed Practical/Vocational Nurse Training	4
VNSG 2413	Applied Nursing Skills II	4
	Semester Totals	**13**

Semester 4		**Credits**
VNSG 1119	Leadership and Professional Development	1
VNSG 1334	Pediatrics	3
VNSG 1432	Medical-Surgical Nursing II	4
VNSG 2463	Clinical - Licensed Practical/Vocational Nurse Training	4
	Semester Totals	**12**
	Program Totals	**50**

Capstone Course(s):
VNSG 2463 - Clinical - Licensed Practical/Vocational Nurse Training

Web Design & Development

Designers and developers work within a variety of settings to gather information and program content and design a site that's effective and easy to use. The Web Design & Development degree offers targeted coursework in website design, production, programming, applications and maintenance, as well as the practical hands-on experience needed to understand the technology. The program includes curriculum specific to graphic and web design, web development, computer science and computer networking. The curriculum also covers languages and software including HTML, JavaScript, PHP, CSS and MySQL. Students not only learn instruction in web page design and composition, but also develop a portfolio and participate in a real-world project that moves them to the top of the class when employers seek candidates.

Web Design & Development is a Performance-Based Education (PBE) program.

Web Design & Development is 100% online. Students will be required to take the Student Online Learning Orientation course (SOLO 100).

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1102, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Web Design & Development Associate of Applied Science

Semester 1		**Credits**
IMED 1371	UI/UX Design	3
ITSE 1311	Beginning Web Programming	3
IMED 1316	Web Design I [1]	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
	Semester Totals	12

Semester 2		**Credits**
ITSE 1303	Introduction to MySQL	3
IMED 2349	Internet Server Management [2]	3
ITSE 2302	Intermediate Web Programming [3]	3
ACGM X3XX	Gen Ed Mathematics Elective	3
	Semester Totals	12

Semester 3		**Credits**
IMED 2345	Interactive Digital Media II [4]	3
ITSE 1306	PHP Programming [5]	3
IMED 2313	Project Analysis and Design	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	12

Semester 4		**Credits**
IMED 2309	Internet Commerce [6]	3
IMED 2315	Web Design II [7]	3
ITSE 2313	Web Authoring [8]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	12

Semester 5		**Credits**
IMED 2311	Portfolio Development [9]	3
IMED 2351	Digital Media Programming [10]	3
IMED 2388	Internship - Digital Communication and Media/Multimedia [11]	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	12
	Program Totals	60

Capstone Course(s):
IMED 2388 - Internship - Digital Communication and Media/Multimedia
IMED 2311 Portfolio Development

Prerequisites
[1] ARTC 1302 (Pre or Co) or ITSE 1311 (Prerequisite or Corequisite) or IMED 1371 (Prerequisite or Corequisite), [2] IMED 1316, [3] ITSE 1311 [4] ITSE 2302, [5] ITSE 1303 or ITSE 2309, ITSE 2302, [6] IMED 2313, ITSE 1306, ITSE 2313 (Prerequisite or Corequisite), [7] IMED 1316, IMED 2313 (Prerequisite or Corequisite), [8] IMED 2313, ITSE 1306, [9] ITSE 2313, IMED 2309, IMED 2315, [10] IMED 2345, ITSE 1306, [11] ITSE 2313, IMED 2309, IMED 2315

Web Design & Development Certificate 1

Semester 1		**Credits**
IMED 1371	UI/UX Design	3
ARTC 1302	*or* Digital Imaging I	
ITSE 1311	Beginning Web Programming	3
IMED 1316	Web Design I [1]	3
	Semester Totals	9

Semester 2		**Credits**
ITSE 2302	Intermediate Web Programming [2]	3
IMED 2313	Project Analysis and Design	3
IMED 2315	Web Design II [3]	3
	Semester Totals	9
	Program Totals	18

Capstone Course(s):
IMED 2315 Wed Design II

Prerequisites
[1] ARTC 1302 (Prerequisite or Corequisite) or ITSE 1311 (Prerequisite or Corequisite) or IMED 1371 (Prerequisite or Corequisite)
[2] ITSE 1311
[3] IMED 1316, IMED 2313 (Prerequisite or Corequisite)

Basic Web Design OSA Occupational Skills Award

Semester 1		**Credits**
IMED 1341	Interface Design	3
ITSE 1311	Beginning Web Programming [1]	3
IMED 1316	Web Design I	3
	Total	9

Prerequisites
[1] ARTC 1302 (Prerequisite or Corequisite) or ITSE 1311 (Prerequisite or Corequisite) or IMED 1371 (Prerequisite or Corequisite)

Welding Technology*

The welding programs at TSTC emphasize the development of real, hands-on welding, layout and fitting skills. With extensive exposure to welding practices and principles, students can better understand not only how welding processes work, but also why certain welding processes are used. Welding Technology offers Welding students instruction on plasma torches for oxy-acetylene and air carbon arc cutting. Students also gain extensive skills and knowledge through simulated industrial welder qualification tests with the following processes: SMAW, GMAW, FCAW (gas and self-shielded), GTAW and SAW. With general welding or specialized programs such as Welding Technology AAS, Structural Cert1 or Structural and Pipe welding available, there are many different options for those wanting to enter the welding industry. For quicker entry into the industry, certificates are also available.

Welding Technology is available at the Abilene, Breckenridge, Brownwood, East Williamson County, Fort Bend County, Harlingen, Marshall, North Texas, Sweetwater and Waco campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

*This program is eligible for a Money-Back Guarantee. Visit page 95 for more details.

Welding Technology
Associate of Applied Science -
Abilene, East Williamson County, Fort Bend County, Harlingen, Waco only

Semester 1		Credits
WLDG 1313	Introduction to Blueprint Reading for Welders	3
WLDG 1407	Introduction to Welding Using Multiple Processes	4
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	4
MATH 1332	Contemporary Mathematics (Quantitative Reasoning)	3
	Semester Totals	**14**

Semester 2		Credits
WLDG 1417	Introduction to Layout and Fabrication [1]	4
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding [2]	4
WLDG 1457	Intermediate Shielded Metal Arc Welding (SMAW) [3]	4
ENGL 1301	Composition I	3
	Semester Totals	**15**

Semester 3		Credits
WLDG 2413	Intermediate Welding Using Multiple Processes [4]	4
WLDG 2435	Advanced Layout and Fabrication [5]	4
WLDG 2443	Advanced Shielded Metal Arc Welding (SMAW) [6]	4
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**15**

Semester 4		Credits
WLDG 1327	Welding Codes and Standards [7]	3
WLDG 1337	Introduction to Welding Metallurgy [8]	3
WLDG 2432	Welding Automation [9]	4
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**16**
	Program Totals	60

Capstone Course(s):
WLDG 1327 - Welding Codes and Standards

Prerequisites
[1] WLDG 1313 (Prerequisite or Corequisite)
[2,4] WLDG 1407
[3] WLDG 1428
[5] WLDG 1417
[6] WLDG 1457
[7,8,9] WLDG 2413

Structural Welding Certificate 1

Semester 1		Credits
TECM 1303	Technical Calculations	3
WLDG 1313	Introduction to Blueprint Reading for Welders	3
WLDG 1407	Introduction to Welding Using Multiple Processes	4
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	4
	Semester Totals	**14**

Semester 2		Credits
WLDG 1417	Introduction to Layout and Fabrication[1]	4
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding[2]	4
WLDG 1457	Intermediate Shielded Metal Arc Welding (SMAW)[3]	4
	Semester Totals	12

Semester 3		Credits
WLDG 2413	Intermediate Welding Using Multiple Processes[4]	4
WLDG 2435	Advanced Layout and Fabrication[5]	4
WLDG 2443	Advanced Shielded Metal Arc Welding (SMAW)[6]	4
	Semester Totals	12
	Program Totals	38

Capstone Course(s):
WLDG 2413 - Intermediate Welding Using Multiple Processes

Prerequisites
[1] WLDG 1313 (Prerequisite or Corequisite)
[2,4] WLDG 1407
[3] WLDG 1428
[5] WLDG 1417
[6] WLDG 1457

Structural & Pipe Welding

Certificate 2 - Abilene, East Williamson County, Fort Bend County, Harlingen, Marshall, North Texas, Waco only

Semester 1		Credits
TECM 1349	Technical Math Applications	3
WLDG 1313	Introduction to Blueprint Reading for Welders	3
WLDG 1407	Introduction to Welding Using Multiple Processes	4
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	4
	Semester Totals	14

Semester 2		Credits
WLDG 1417	Introduction to Layout and Fabrication[1]	4
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding[2]	4
WLDG 1457	Intermediate Shielded Metal Arc Welding (SMAW)[3]	4
	Semester Totals	12

Semester 3		Credits
WLDG 2413	Intermediate Welding Using Multiple Processes[4]	4
WLDG 2435	Advanced Layout and Fabrication[5]	4
WLDG 2443	Advanced Shielded Metal Arc Welding (SMAW)[6]	4
	Semester Totals	12

Semester 4		Credits
WLDG 1435	Introduction to Pipe Welding[7]	4
WLDG 2406	Intermediate Pipe Welding[8]	4
WLDG 2453	Advanced Pipe Welding[9]	4
	Semester Totals	12
	Program Totals	50

Capstone Course(s):
WLDG 2453 - Advanced Pipe Welding

Prerequisites
[1] WLDG 1313 (Prerequisite or Corequisite)
[2,4] WLDG 1407
[3] WLDG 1428
[5] WLDG 1417
[6] WLDG 1457
[7,8,9] WLDG 2435

Basic Welding - Multiple Processes OSA

Occupational Skills Award - Abilene, Waco, Hybrid only

Semester 1		Credits
WLDG 1407	Introduction to Welding Using Multiple Processes	4
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	4
WLDG 2413	Intermediate Welding Using Multiple Processes [1]	4
	Total	12

Prerequisites
[1] WLDG 1407

Wind Energy Technology

As a wind energy technician, your options are sky-high. You can work at turbine construction and manufacturing sites, in the distribution and generation industries, at utility companies, or on wind farms anywhere in the country. At TSTC you'll learn to conduct efficiency studies and manage personnel, materials and machines in factories, offices and production sites. You'll also prepare machinery and equipment layouts, plan workflow for turbine construction and maintenance, conduct statistical studies of product quality and time usage, and analyze production costs. Upon successful completion of our program, you'll be qualified to operate and maintain the systems that make a wind turbine function.

Wind Energy Technology is offered at the Harlingen and Sweetwater campuses.

First-Year Seminar Requirement
Students are required to enroll in the First-Year Seminar course, TSTC 1101, in their first semester attending TSTC unless they have completed more than 24 credit hours. Please see detailed information regarding the course and exemptions in the Advising section under First-Year Seminar course.

Wind Energy Technology Associate of Applied Science

Semester 1		**Credits**
CETT 1303	DC Circuits	3
WIND 1300	Introduction to Wind Energy	3
WIND 1302	Wind Safety	3
MATH 1314	College Algebra (3 SCH version)	3
	Semester Totals	12

Semester 2		**Credits**
CETT 1305	AC Circuits [1]	3
CETT 1325	Digital Fundamentals [2]	3
ELMT 1305	Basic Fluid Power	3
WIND 2310	Wind Turbine Materials and Electro-Mechanical Equipment [3]	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	15

Semester 3		**Credits**
ELMT 1301	Programmable Logic Controllers [4]	3
ENER 2325	SCADA and Networking [5]	3
INMT 1317	Industrial Automation [6]	3
ENGL 1301	Composition I	3
ENGL 2311	*or* Technical & Business Writing	
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
	Semester Totals	15

Semester 4		**Credits**
ELMT 2341	Electromechanical Systems	3
ELMT 2335	*or* Certified Electronics Technician Training [7]	
WIND 2455	Wind Turbine Troubleshooting and Repair [8]	4
WIND 2459	Wind Power Delivery System 9	4
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	14

Semester 5		**Credits**
ELMT 2480	Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology	4
ELMT 1491	*or* Special Topics in Electromechanical Technology/Technician	
	Semester Totals	4
	Program Totals	60

Capstone Course(s):
ELMT 2480 - Cooperative Education - Electromechanical Technology/Electromechanical Engineering
or ELMT 1491 - Special Topics in Electromechanical l

Prerequisites
[1] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
[2] CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
[3] WIND 1300, WIND 1302, CETT 1303
[4,7] CETT 1325
[5,6] CETT 1303, CETT 1305
[8] CETT 1305, INMT 1317
[9] CETT 1305

Wind Energy Technician Certificate 1

Semester 1		**Credits**
CETT 1303	DC Circuits	3
TECM 1303	Technical Calculations	3
WIND 1300	Introduction to Wind Energy	3
WIND 1302	Wind Safety	3
	Semester Totals	12

Semester 2		**Credits**
CETT 1305	AC Circuits [1]	3
CETT 1325	Digital Fundamentals [2]	3
ELMT 1305	Basic Fluid Power	3
WIND 2310	Wind Turbine Materials and Electro-Mechanical Equipment [3]	3
	Semester Totals	12

Semester 3		**Credits**
ELMT 1301	Programmable Logic Controllers [4]	3
ELMT 2335	Certified Electronics Technician Training [5]	3
ENER 2325	*or* SCADA and Networking [6]	
INMT 1317	Industrial Automation [7]	3
WIND 2459	Wind Power Delivery System [8]	4
	Semester Totals	13
	Program Totals	37

Capstone Course(s):
WIND 2459 - Wind Power Delivery System

Prerequisites
[1] CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
[2] CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
[3] WIND 1300, WIND 1302, CETT 1303
[4,5] CETT 1325
[6,7] CETT 1303, CETT 1305
[8] CETT 1305

DUAL OBJECTIVES

A dual objective enrollment is when a student is pursuing two approved programs at the same time. The following programs are considered to be complementary to one another and may be pursued as dual objectives.

Aircraft Airframe Technology and Aircraft Powerplant Technology

Aircraft Airframe Technology and Aircraft Powerplant Technology is available at the Abilene, Harlingen and Waco campuses.

Aircraft Airframe Technology and Aircraft Powerplant Technology Associate of Applied Science

Semester 1		Credits
AERM 1107	Aviation Mathematics	1
AERM 1109	*and* Aviation Physics	1
AERM 1112	*and* Aviation Drawings	1
AERM 1315	*or* Aviation Science	
AERM 1203	Shop Practices	2
AERM 1205	Weight and Balance	2
AERM 1208	Federal Aviation Regulations	2
AERM 1210	Ground Operations	2
AERM 1314	Basic Electricity	3
	Semester Totals	**14**

Semester 2		Credits
AERM 1247	Airframe Auxiliary Systems[1]	2
AERM 1345	Airframe Electrical Systems[2]	3
AERM 1350	Landing Gear Systems	3
AERM 1449	Hydraulic, Pneumatic, and Fuel Systems[3]	4
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
	Semester Totals	**15**

Semester 3		Credits
AERM 1241	Wood, Fabric, and Finishes	2
AERM 1243	Instruments and Navigation/Communication[4]	2
AERM 1253	Aircraft Welding[5]	2
AERM 1254	Aircraft Composites	2
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**14**

Semester 4		Credits
AERM 1452	Aircraft Sheet Metal[6]	4
AERM 2230	FAA Review - Airframe	2
AERM 2231	Airframe Inspection	2
AERM 2333	Assembly and Rigging	3
ACGM X3XX	Gen Ed Elective	3
ACGM X3XX	Gen Ed Elective	3
	Semester Totals	**17**

Semester 5		Credits
AERM 1351	Aircraft Turbine Engine Theory[7]	3
AERM 1357	Fuel Metering and Induction Systems	3
AERM 1444	Aircraft Reciprocating Engines[8]	4
AERM 1456	Aircraft Powerplant Electrical[9]	4
	Semester Totals	**14**

Semester 6		Credits
AERM 1240	Aircraft Propellers[10]	2
AERM 2341	Powerplant and Auxiliary Power Units	3
AERM 2351	Aircraft Turbine Engine Overhaul[11]	3
AERM 2234	FAA Review - Powerplant	2
AERM 2352	Aircraft Powerplant Inspection	3
AERM 2447	Aircraft Reciprocating Engine Overhaul[12]	4
	Semester Totals	**17**
	Program Totals	**91**

Capstone Course(s):
AERM 2230 - FAA Review - Airframe
AERM 2234 - FAA Review - Powerplant

Prerequisites
[1] AERM 1109 or AERM 1315
[2, 4, 9] AERM 1314
[3, 7, 8, 10] AERM 1109 or AERM 1315 (Prerequisite or Corequisite)
[5] AERM 1203
[6] (AERM 1107, AERM 1112, AERM 1203) or (AERM 1315, AERM 1203)
[11] AERM 1351
[12] AERM 1444

Architectural Design & Engineering Graphics Technology and Engineering

Architectural Design & Engineering Graphics Technology Associate of Applied Science and Engineering Associate of Science

Semester 1		Credits
DFTG 1309	Basic Computer-Aided Drafting	3
DFTG 1345	Parametric Modeling and Design[1]	3
ENGR 1304	*or* Engineering Graphics I (3 SCH Version)[2]	
MATH 1314	College Algebra (3 SCH Version)	3
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
ENGR 1201	Introduction to Engineering[3]	2
CHEM 1311	General Chemistry I (lecture)[4]	3
CHEM 1111	General Chemistry I (lab)[5]	1
MATH 2312	Pre-Calculus Math (3 SCH version)[6]	3
	Semester Totals	**21**

Semester 2		Credits
DFTG 1317	Architectural Drafting - Residential[7]	3
DFTG 1333	Mechanical Drafting[8]	3
SRVY 1341	Land Surveying[9]	3
ENGL 1301	Composition I	3
ENGR 1304	Engineering Graphics I (3 SCH Version)[10]	3
GOVT 2306	Texas Government (Texas constitution & topics)	3
MATH 2413	Calculus I (4 SCH version)[11]	4
	Semester Totals	**21**

Semester 3		Credits
DFTG 2302	Machine Drafting[12]	3
DFTG 2330	Civil Drafting[13]	3
INDS 1319	Technical Drawing for Interior Designers[14]	3
ACGM X3XX	Gen Ed Speech Elective	3
ENGL 1302	Composition II[15]	3
ENGR 2304	Programming for Engineers	3
MATH 2414	Calculus II (4 SCH version)[16]	4
PHYS 2325	University Physics I (lecture)[17]	3
PHYS 2125	University Physics Laboratory I (lab)[18]	1
	Semester Totals	**26**

Semester 4		Credits
ARCE 1321	Architectural Illustration[19]	3
DFTG 2321	Topographical Drafting[20]	3
DFTG 2335	Advanced Technologies in Mechanical[21] Design and Drafting	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
ENGR 2301	Engineering Mechanics - Statics (3 SCH version)[22]	3
HIST 1301	United States History I	3
MATH 2415	Calculus III (4 SCH version)[23]	4
PHYS 2326	University Physics II (lecture)[24]	3
PHYS 2126	University Physics Laboratory II (lab)[25]	1
	Semester Totals	**26**

Semester 5		Credits
ARCE 1352	Structural Drafting	3
DFTG 2332	Advanced Computer-Aided Drafting[26]	3
DFTG 2338	Final Project - Advanced Drafting[27]	3
GISC 1311	Introduction to Geographic Information Systems (GIS)	3
DFTG 1329	*or* Electro-Mechanical Drafting[28]	
DFTG 2357	*or* Advanced Technologies in Pipe Design[29] and Drafting	
ENGR 2105	Electrical Circuits I Laboratory	1
ENGR 2302	Engineering Mechanics - Dynamics (3 SCH version)[30]	3
ENGR 2305	Electrical Circuits I[31]	3
MATH 2320	Differential Equations (3 SCH version)[32]	3
	Semester Totals	**22**
	Program Totals	**107**

Capstone Course(s):
ARCE 1352 - Structural Drafting
DFTG 2338 - Final Project - Advanced Drafting
ENGR 2305 Electrical Circuits I
ENGR 2105 Electrical Circuits I Laboratory

Prerequisites
[1,9] DFTG 1309 (Prerequisite or Corequisite)
[2,3,6,10] MATH 1314
[4] MATH 1314 (Prerequisite) or CHEM 1111 (Prerequisite or Corequisite)
[5] CHEM 1311 (Prerequisite or Corequisite)
[7] DFTG 1305 or DFTG 1309 (Prerequisite or Corequisite)
[8] DFTG 1305 or DFTG 1309
[11] MATH 1316 or MATH 2312 or MATH 2412
[12] DFTG 1309 (Prerequisite or Corequisite) or DFTG 1333 (Prerequisite)
[13] SRVY 1301 or DFTG 2319 or SRVY 1341
[14,19] DFTG 1317
[15] ENGL 1301
[16] MATH 2413
[17] MATH 2413 (Prerequisite), PHYS 2125 (Prerequisite or Corequisite)
[18] PHYS 2325 (Prerequisite or Corequisite)
[20] DFTG 2319
[21,26,27] DFTG 2319 (Prerequisite or Corequisite)
[22] PHYS 2325
[23,32] MATH 2414
[24] PHYS 2325, MATH 2414 (Prerequisite), PHYS 2126 (Prerequisite or Corequisite)
[25] PHYS 2326
[28] DFTG 1309 (Prerequisite or Corequisite)
[29] DFTG 1309
[30] ENGR 2301
[31] PHYS 2325, MATH 2414

Electrical Construction and Solar Energy Technology

Electrical Construction and Solar Energy Technology is available at the Waco campus.

Electrical Construction Certificate 1 and Solar Energy Technology Associate of Applied Science

Semester 1		Credits
CNBT 1300	Residential and Light Commercial Blueprint Reading	3
CNBT 1346	Construction Estimating I	3
ELPT 1329	Residential Wiring	3
ITSC 1309	Integrated Software Applications I	3
TECM 1303	Technical Calculations	3
	Semester Totals	15

Semester 2		Credits
ELPT 1311	Basic Electrical Theory	3
ELPT 1325	National Electrical Code I	3
ELPT 1345	Commercial Wiring	3
OSHT 1305	OSHA Regulations - Construction Industry	3
SOLR 1371	Introduction to Solar and Alternative Energy Technologies	3
	Semester Totals	15

Semester 3		Credits
ELPT 1340	Master Electrician Exam Review I[1]	3
ELPT 1341	Motor Control[2]	3
ELPT 1357	Industrial Wiring[3]	3
ELPT 2305	Motors and Transformers[4]	3
	Semester Totals	12

Semester 4		Credits
CNBT 2317	Green Building	3
RBPT 1370	Building Envelope Inspection	3
SOLR 2377	Codes for Alternative Energy, Efficiency & Conservation	3
RBPT 2325	Energy Rating Systems for Homes	3
RBPT 2329	Residential Verification and Rating	3
	Semester Totals	15

Semester 5		Credits
RBPT 2359	Residential Building Performance Consulting	3
SOLR 1372	Foundations of Solar Photovoltaic Power Generation	3
ELPT 1345	Commercial Wiring	3
ENGL 1301	Composition I	3

ACGM X3XX	Gen Ed Elective	3
	Semester Totals	15

Semester 6		Credits
ACGM X3XX	Gen Ed Humanities/Fine Arts Elective	3
SOLR 2375	Solar System Design, Installation, Troubleshooting & Repair	3
SOLR 2376	Special Projects in Solar Energy Systems	3
ACGM X3XX	Gen Ed Math/Natural Science Elective	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	15

	Program Totals	87

Capstone Course(s):
ELPT 1340 - Master Electrician Exam Review I
SOLR 2375 - Solar System Design, Installation, Troubleshooting & Repair
SOLR 2376 - Special Projects in Solar Energy Systems

Prerequisites
[1] ELPT 1325
[2] ELPT 1311 or CETT 1303 or IEIR 1371
[3] ELPT 1329 or ELPT 1345
[4] ELPT 1311 or CETT 1303

Engineering and Mathematics

Engineering/Mathematics Associate of Science

Semester 1		Credits
MATH 2312	Pre-Calculus Math (3 SCH version)[1]	3
ENGL 1301	Composition I	3
ACGM X3XX	Creative Arts Elective	3
ENGR 1201	Introduction to Engineering[2]	2
CHEM 1311	General Chemistry I (lecture)[3]	3
CHEM 1111	General Chemistry I (lab)[4]	1
	Semester Totals	**15**

Semester 2		Credits
MATH 2413	Calculus I (4 SCH version)[5]	4
ENGL 1302	Composition II[6]	3
GOVT 2305	Federal Government (Federal constitution & topics)	3
ACGM X3XX	Life and Physical Science Elective	3
ENGR 1304	Engineering Graphics I (3 SCH Version)[7]	3
	Semester Totals	**16**

Semester 3		Credits
MATH 2414	Calculus II (4 SCH version)[8]	4
ACGM X3XX	Language, Philosophy and Culture Elective	3
ENGR 2304	Programming for Engineers	3
PHYS 2325	University Physics I (lecture)[9]	3
PHYS 2125	University Physics Laboratory I (lab)[10]	1
	Semester Totals	**14**

Semester 4		Credits
MATH 2415	Calculus III (4 SCH version)[11]	4
HIST 1301	United States History I	3
ENGR 2301	Engineering Mechanics - Statics (3 SCH version)[12]	3
PHYS 2326	University Physics II (lecture)[13]	3
PHYS 2126	University Physics Laboratory II (lab)[14]	1
	Semester Totals	**14**

Semester 5		Credits
HIST 1302	United States History II	3
MATH 2320	Differential Equations (3 SCH version)[15]	3
ENGR 2105	Electrical Circuits I Laboratory	1
ENGR 2302	Engineering Mechanics - Dynamics[16] (3 SCH version)	3
ENGR 2305	Electrical Circuits I[17]	3
MATH 2320	Differential Equations (3 SCH version)[18]	3
	Semester Totals	**16**

Semester 6		Credits
ACGM X3XX	Life and Physical Science Elective	3
GOVT 2306	Texas Government (Texas constitution & topics)	3
SPCH X3XX	Gen Ed Speech Elective	3
ACGM X3XX	Component Area Option*	3
MATH X3XX	Gen Ed Mathematics Elective **	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**18**
	Program Totals	**93**

Capstone Course(s):
ENGR 2305 Electrical Circuits I
ENGR 2105 Electrical Circuits I Laboratory
MATH 2320 - Differential Equations

Prerequisites
[1,2,7] MATH 1314
[3] MATH 1314 (Prerequisite), CHEM 1111 (Prerequisite or Corequisite)
[4] CHEM 1311 (Prerequisite or Corequisite)
[5] MATH 1316 or MATH 2312 or MATH 2412
[6] ENGL 1301
[8] MATH 2413
[9] MATH 2413 (Prerequisite), PHYS 2125 (Prerequisite or Corequisite)
[10] PHYS 2325 (Prerequisite or Corequisite)
[11,15,18] MATH 2414
[12] PHYS 2325
[13] PHYS 2325, MATH 2414 (Prerequisite), PHYS 2126 (Prerequisite or Corequisite)
[14] PHYS 2326 (Prerequisite or Corequisite)
[16] ENGR 2301
[17] PHYS 2325, MATH 2414

Mathematics Elective (3 hours)**

MATH 1316	Plane Trigonometry[19]	3
MATH 1332	Contemporary Mathematics (Quantitative Reasoning)	3
MATH 1342	Elementary Statistical Methods	3
MATH 2318	Linear Algebra[20]	3

Component Area Option*

BIOL 1106	Biology for Science Majors Laboratory I (lab)[21]	1
BIOL 1107	Biology for Science Majors II Lab[22]	1
BIOL 1108	Biology Non-Science Majors Laboratory I[23]	1
BIOL 1109	Biology for Non-Science Majors II Lab[24]	1
BIOL 2101	Anatomy & Physiology I (lab)	1
BIOL 2102	Anatomy & Physiology II (lab)	1
CHEM 1111	General Chemistry I (lab)[25]	1
CHEM 1112	General Chemistry II (lab)[26]	1
ENGL 2321	British Literature[27]	3
ENGL 2326	American Literature[28]	3
ENGL 2331	World Literature[29]	3
PHYS 1101	College Physics Laboratory I[30]	1
PHYS 1102	College Physics Lab II[31]	1
PHYS 1115	Physical Science Lab I	1
PHYS 1117	Physical Science Lab II	1
SPCH 1311	Introduction to Speech Communication	3
SPCH 1315	Public Speaking	3
SPCH 1318	Interpersonal Communication	3
SPCH 1321	Business & Professional Communication	3

Prerequisites
[19] TSI complete in Math
[20] MATH-2314 OR MATH-2414
[21] BIOL-1306 (Prerequisite or Corequisite)
[22] BIOL-1307 (Prerequisite or Corequisite)
[23] BIOL-1308 (Prerequisite or Corequisite)
[24] BIOL-1309 (Prerequisite or Corequisite)
[25] CHEM 1311 (Prerequisite or Corequisite)
[26] CHEM 1111, CHEM 1311 (Prerequisite), CHEM 1312 (Prerequisite or Corequisite)
[27, 28, 29] ENGL-1301
[30] PHYS-1301 (Corequisite)
[31] PHYS-1302 (Corequisite)

Engineering and Physics

Engineering/Physics Associate of Science

Semester 1		Credits
ENGR 1201	Introduction to Engineering[1]	2
CHEM 1311	General Chemistry I (lecture)[2]	3
CHEM 1111	General Chemistry I (lab)[3]	1
ENGL 1301	Composition I	3
MATH 2312	Pre-Calculus Math (3 SCH version)[4]	3
ACGM X3XX	Creative Arts Elective	3
	Semester Totals	**15**

Semester 2		Credits
ENGR 1304	Engineering Graphics I (3 SCH Version)[5]	3
ENGL 1302	Composition II[6]	3
MATH 2413	Calculus I (4 SCH version)[7]	4
CHEM 1111	General Chemistry I (lab)[8]	1
CHEM 1311	General Chemistry I (lecture)[9]	3
GOVT 2305	Federal Government (Federal constitution & topics)	3
	Semester Totals	**17**

Semester 3		Credits
ENGR 2304	Programming for Engineers	3
MATH 2414	Calculus II (4 SCH version)[10]	4
PHYS 2325	University Physics I (lecture)[11]	3
PHYS 2125	University Physics Laboratory I (lab)[12]	1
CHEM 1112	General Chemistry II (lab)[13]	1
CHEM 1312	General Chemistry II (lecture)[14]	3
	Semester Totals	**15**

Semester 4		Credits
ENGR 2301	Engineering Mechanics - Statics (3 SCH version)[15]	3
HIST 1301	United States History I	3
MATH 2415	Calculus III (4 SCH version)[16]	4
PHYS 2326	University Physics II (lecture)[17]	3
PHYS 2126	University Physics Laboratory II (lab)[18]	1
	Semester Totals	**14**

Semester 5		Credits
ENGR 2105	Electrical Circuits I Laboratory	1
ENGR 2302	Engineering Mechanics - Dynamics (3 SCH version)[19]	3
ENGR 2305	Electrical Circuits I[20]	3
MATH 2320	Differential Equations (3 SCH version)[21]	3
HIST 1302	United States History II	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
	Semester Totals	**16**

Semester 6		Credits
GOVT 2306	Texas Government (Texas constitution & topics)	3
ACGM X3XX	Language, Philosophy and Culture Elective	3
SPCH X3XX	Gen Ed Speech Elective	3
ACGM X3XX	Component Area Option*	3
	Semester Totals	**12**
	Program Totals	**89**

Capstone Course(s):
ENGR 2305 Electrical Circuits I
ENGR 2105 Electrical Circuits I Laboratory
PHYS 2126 - University Physics Laboratory II (lab)
PHYS 2326 - University Physics II (lecture)

Prerequisites
[1,4,5] MATH 1314
[2] MATH 1314 (Prerequisite), CHEM 1111 (Prerequisite or Corequisite)
[3] CHEM 1311 (Prerequisite or Corequisite)
[6] ENGL 1301
[7] MATH 1316 or MATH 2312 or MATH 2412
[8] CHEM 1311 (Prerequisite or Corequisite)
[9] MATH 1314 (Prerequisite), CHEM 1111 (Prerequisite or Corequisite)
[10] MATH 2413
[11] MATH 2413 (Prerequisite), PHYS 2125 (Prerequisite or Corequisite)
[12] PHYS 2325 (Prerequisite or Corequisite)
[13] CHEM 1111, CHEM 1311 (Prerequisite), CHEM 1312 (Prerequisite or Corequisite)
[14] CHEM 1111, CHEM 1311 (Prerequisite), CHEM 1112 (Prerequisite or Corequisite)
[15] PHYS 2325
[16,21] MATH 2414
[17] PHYS 2325, MATH 2414 (Prerequisite), PHYS 2126 (Prerequisite or Corequisite)
[18] PHYS 2326 (Prerequisite or Corequisite)
[19] ENGR 2301
[20] PHYS 2325, MATH 2414

Component Area Option*

BIOL 1106	Biology for Science Majors Laboratory I (lab)[22]	1
BIOL 1107	Biology for Science Majors II Lab[23]	1
BIOL 1108	Biology Non-Science Majors Laboratory I[24]	1
BIOL 1109	Biology for Non-Science Majors II Lab[25]	1
BIOL 2101	Anatomy & Physiology I (lab)	1
BIOL 2102	Anatomy & Physiology II (lab)	1
CHEM 1111	General Chemistry I (lab)[26]	1
CHEM 1112	General Chemistry II (lab)[27]	1
ENGL 2321	British Literature[28]	3
ENGL 2326	American Literature[29]	3
ENGL 2331	World Literature[30]	3
PHYS 1101	College Physics Laboratory I[31]	1
PHYS 1102	College Physics Lab II[32]	1
PHYS 1115	Physical Science Lab I	1
PHYS 1117	Physical Science Lab II	1
SPCH 1311	Introduction to Speech Communication	3
SPCH 1315	Public Speaking	3
SPCH 1318	Interpersonal Communication	3
SPCH 1321	Business & Professional Communication	3

Prerequisites
[22] BIOL-1306 (Pre or Co)
[23] BIOL-1307 (Pre or Co)
[24] BIOL-1308 (Pre or Co)
[25] BIOL-1309 (Pre or Co)
[26] CHEM 1311 (Pre or Co)
[27] CHEM 1111, CHEM 1311 (Pre), CHEM 1312 (Pre or Co)
[28, 29, 30] ENGL-1301
[31] PHYS-1301 Co-requisite
[32] PHYS-1302 Co-requisite

Mathematics and Physics

Mathematics/Physics Associate of Science

Semester 1		Credits
MATH 2312	Pre-Calculus Math (3 SCH version)[1]	3
ENGL 1301	Composition I	3
ACGM X3XX	Creative Arts Elective	3
GOVT 2305	Federal Government (Federal constitution & topics)	3
SPCH X3XX	Gen Ed Speech Elective	3
	Semester Totals	**15**

Semester 2		Credits
MATH 2413	Calculus I (4 SCH version)[2]	4
ENGL 1302	Composition II[3]	3
ACGM X3XX	Life and Physical Science Elective	3
CHEM 1111	General Chemistry I (lab)[4]	1
CHEM 1311	General Chemistry I (lecture)[5]	3
	Semester Totals	**14**

Semester 3		Credits
MATH 2414	Calculus II (4 SCH version)[6]	4
GOVT 2306	Texas Government (Texas constitution & topics)	3
ACGM X3XX	Life and Physical Science Elective	3
ACGM X3XX	Language, Philosophy and Culture Elective	3
CHEM 1112	General Chemistry II (lab)[7]	1
CHEM 1312	General Chemistry II (lecture)[8]	3
	Semester Totals	**17**

Semester 4		Credits
MATH 2415	Calculus III (4 SCH version)[9]	4
HIST 1301	United States History I	3
ACGM X3XX	Component Area Option*	3
PHYS 2125	University Physics Laboratory I (lab)[10]	1
PHYS 2325	University Physics I (lecture)[11]	3
	Semester Totals	**14**

Semester 5		Credits
HIST 1302	United States History II	3
MATH 2320	Differential Equations (3 SCH version)[12]	3
MATH X3XX	Gen Ed Mathematics Elective**	3
ACGM X3XX	Gen Ed Social/Behavioral Science Elective	3
PHYS 2126	University Physics Laboratory II (lab)[13]	1
PHYS 2326	University Physics II (lecture)[14]	3
	Semester Totals	**16**
	Program Totals	**76**

Capstone Course(s):
MATH 2320 - Differential Equations PHYS 2126 - University Physics Laboratory II (lab)
PHYS 2326 - University Physics II (lecture)

Prerequisites
[1] MATH 1314
[2] MATH 1316 or MATH 2312 or MATH 2412
[3] ENGL 1301
[4] CHEM 1311 (Prerequisite or Corequisite)
[5] MATH 1314 (Prerequisite), CHEM 1111 (Prerequisite or Corequisite)
[6] MATH 2413
[7] CHEM 1111, CHEM 1311 (Prerequisite), CHEM 1312 (Prerequisite or Corequisite)
[8] CHEM 1111, CHEM 1311 (Prerequisite), CHEM 1112 (Prerequisite or Corequisite)
[9,12] MATH 2414
[10] PHYS 2325 (Prerequisite or Corequisite)
[11] MATH 2413 (Prerequisite), PHYS 2125 (Prerequisite or Corequisite)
[13] PHYS 2326 (Prerequisite or Corequisite)
[14] PHYS 2325, MATH 2414 (Prerequisite), PHYS 2126 (Prerequisite or Corequisite)

Mathematics Elective (3 hours)**

MATH 1316	Plane Trigonometry[15]	3
MATH 1332	Contemporary Mathematics (Quantitative Reasoning)	3
MATH 1342	Elementary Statistical Methods	3
MATH 2318	Linear Algebra[16]	3

Component Area Option*

BIOL 1106	Biology for Science Majors Laboratory I (lab)[17]	1
BIOL 1107	Biology for Science Majors II Lab[18]	1
BIOL 1108	Biology Non-Science Majors Laboratory I[19]	1
BIOL 1109	Biology for Non-Science Majors II Lab[20]	1
BIOL 2101	Anatomy & Physiology I (lab)	1
BIOL 2102	Anatomy & Physiology II (lab)	1
CHEM 1111	General Chemistry I (lab)[21]	1
CHEM 1112	General Chemistry II (lab)[22]	1
ENGL 2321	British Literature[23]	3
ENGL 2326	American Literature[24]	3
ENGL 2331	World Literature[25]	3
PHYS 1101	College Physics Laboratory I[26]	1
PHYS 1102	College Physics Lab II[27]	1
PHYS 1115	Physical Science Lab I	1
PHYS 1117	Physical Science Lab II	1
SPCH 1311	Introduction to Speech Communication	3
SPCH 1315	Public Speaking	3
SPCH 1318	Interpersonal Communication	3
SPCH 1321	Business & Professional Communication	3

Prerequsites
[15] TSI complete in Math
[16] MATH-2314 OR MATH-2414
[17] BIOL-1306 (Prerequisite or Corequisite)
[18] BIOL-1307 (Prerequisite or Corequisite)
[19] BIOL-1308 (Prerequisite or Corequisite)
[20] BIOL-1309 (Prerequisite or Corequisite)
[21] CHEM 1311 (Prerequisite or Corequisite)
[22] CHEM 1111, CHEM 1311 (Prerequisite), CHEM 1312 (Prerequisite or Corequisite)
[23,24,25] ENGL-1301
[26] PHYS-1301 (Corequisite)
[27] PHYS-1302 (Corequisite)


TSTC

COURSE DESCRIPTIONS

Academic Courses

ACCT

ACCT 2301 (3-0-3) 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).

ANTH

ANTH 2346 (3-0-3) 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.

ARTS

ARTS 1301 (3-0-3) 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 contexts.

ARTS 1304 (3-0-3) A chronological analysis of the historical and cultural contexts of the visual arts from the 14th century to the present day.

ARTS 2326 (3-0-3) Exploration of ideas using sculpture media and techniques.

BIOL

BIOL 1106 (0-3-1) This laboratory-based course accompanies Biology 1306, Biology for Science Majors I. 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. Prerequisite: BIOL 1306 (Prerequisite or Corequisite)

BIOL 1107 (0-3-1) This laboratory-based course accompanies Biology 1307, Biology for Science Majors II. Laboratory activities will reinforce study of the diversity and classification of life, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Prerequisite: BIOL 1307 (Prerequisite or Corequisite)

BIOL 1108 (0-3-1) This laboratory-based course accompanies BIOL 1308, Biology for Non-Science Majors I. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Prerequisite: BIOL 1308 (Prerequisite or Corequisite)

BIOL 1109 (0-3-1) This laboratory-based course accompanies BIOL 1309, Biology for Non-Science Majors II. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Prerequisite: BIOL 1309 (Prerequisite or Corequisite)

BIOL 1111 (0-3-1) This laboratory-based course accompanies Biology 1311, General Botany. Laboratory activities will reinforce fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi. (This course is intended for science majors.) Prerequisite: BIOL 1311

BIOL 1113 (0-3-1) This laboratory-based course accompanies Biology 1313, General Zoology. Laboratory activities will reinforce fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology. (This course is intended for science majors.) Prerequisite: BIOL 1313 (Prerequisite or Corequisite)

BIOL 1306 (3-0-3) 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. Prerequisite: BIOL 1106 Recommended corequisite MATH 1314 or MATH 1414 Recommended prerequisite

BIOL 1307 (3-0-3) 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. Prerequisite: BIOL 1107 Recommended corequisite

BIOL 1308 (3-0-3) Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Prerequisite: BIOL 1108 Recommended corequisite

BIOL 1309 (3-0-3) This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Prerequisite: BIOL 1109 Recommended corequisite

BIOL 1311 (3-0-3) Fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi. (This course is intended for science majors.) Prerequisite: BIOL 1111

BIOL 1313 (3-0-3) Fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology. (This course is intended for science majors.) Prerequisite: MATH 1314 or MATH 1414 Recommended prerequisite

BIOL 1322 (3-0-3) 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.

BIOL 1406 (3-3-4) This lecture and lab course should combine all of the elements of BIOL 1306 Biology for Science Majors I (lecture) and BIOL 1106 Biology for Science Majors I (lab), including the learning outcomes listed for both courses.

BIOL 1407 (3-3-4) This lecture and lab course should combine all of the elements of BIOL 1307 Biology for Science Majors II (lecture) and BIOL 1107 Biology for Science Majors II (lab), including the learning outcomes listed for both courses.

BIOL 1408 (3-3-4) This lecture and lab course should combine all of the elements of BIOL 1308 Biology for Non-Science Majors I (lecture) and BIOL 1108 Biology for Non- Science Majors I (lab), including the learning outcomes listed for both courses.

BIOL 1409 (3-3-4) This lecture and lab course should combine all of the elements of BIOL 1309 Biology for Non-Science Majors II (lecture) and BIOL 1109 Biology for Non-Science Majors II (lab), including the learning outcomes listed for both courses.

BIOL 1411 (3-3-4) This lecture and lab course should combine all of the elements of BIOL 1311 (lecture) and BIOL 1111 (lab), including the learning outcomes listed for both courses.

BIOL 2101 (0-3-1) 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.

BIOL 2102 (0-3-1) 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).

BIOL 2116 (0-3-1) Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BIOL 2120 (0-3-1) 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.

BIOL 2121 (0-3-1) This laboratory-based course accompanies Biology 2321, Microbiology for Science Majors. 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. Prerequisite: BIOL 2321 (Prerequisite or Corequisite)

BIOL 2301 (3-0-3) 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.

BIOL 2302 (3-0-3) 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.

BIOL 2316 (3-0-3) Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BIOL 2320 (3-0-3) 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.

BIOL 2321 (3-0-3) 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.

BIOL 2401 (3-3-4) This lecture and lab course should combine all of the elements of BIOL 2301 Anatomy and Physiology I (lecture) and BIOL 2101 Anatomy and Physiology I (lab), including the learning outcomes listed for both courses.

BIOL 2402 (3-3-4) This lecture and lab course should combine all of the elements of BIOL 2302 Anatomy and Physiology II (lecture) and BIOL 2102 Anatomy and Physiology II (lab), including the learning outcomes listed for both courses.

BIOL 2404 (3-3-4) Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized.

BIOL 2406 (3-3-4) Human interaction with and effect upon plant and animal communities. Conservation, pollution, energy, and other contemporary ecological problems. Prerequisite: BIOL 1408 or BIOL 1406

BIOL 2416 (3-3-4) Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BIOL 2420 (3-3-4) This lecture and lab course should combine all of the elements of BIOL 2320 Microbiology for Non-Science Majors (lecture) and BIOL 2120 Microbiology for Non-Science Majors Laboratory (lab), including the learning outcomes listed for both courses.

BUSI

BUSI 1301 (3-0-3) 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.

BUSI 2301 (3-0-3) 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.

CHEM

CHEM 1105 (0-3-1) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1107 (0-3-1) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for allied health students and for students who are not science majors. Prerequisite: CHEM 1305 CHEM 1105 CHEM 1307 (Corequisite)

CHEM 1111 (0-3-1) 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. Prerequisite: CHEM 1311 (Corequisite)

CHEM 1112 (0-3-1) Basic laboratory experiments supporting theoretical principles presented in CHEM 1312; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Prerequisite: CHEM 1312 (Corequisite)

CHEM 1305 (3-0-3) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1307 (3-0-3) A Continuation of Chem 1305 for Allied Health and Related Science Majors. Topics Include Ionization, Chemical Equilibrium, Oxidation-Reduction, Nuclear Chemistry, and an Introduction Into Organic and Biochemistry. Prerequisite: CHEM 1305, CHEM 1105, CHEM 1107 (Corequisite)

CHEM 1311 (3-0-3) 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. Prerequisite: MATH 1314 (Prerequisite), CHEM 1111 (Corequisite)

CHEM 1312 (3-0-3) Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry. Prerequisite: CHEM 1111, CHEM 1311 (Prerequisite), CHEM 1112 (Corequisite)

CHEM 1405 (3-3-4) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1406 (3-3-4) Survey Course Introducing Chemistry. Topics May Include Inorganic, Organic, Biochemistry, Food/Physiological Chemistry, and Environmental/Consumer Chemistry. Designed for Non-Science and Allied Health Students

CHEM 1411 (3-3-4) This lecture and lab course should combine all of the elements of 1314 General Chemistry I Lecture and 1111 General Chemistry I Lab, including the learning outcomes listed for both courses.

CHEM 1412 (3-3-4) This lecture and lab course should combine all of the elements of 1312 General Chemistry II Lecture and 1112 General Chemistry II Lab, including the learning outcomes listed for both courses. Prerequisite: CHEM 1411 OR (CHEM 1311 and CHEM 1111)

CHEM 1414 (3-3-4) General principles, problems, fundamental laws, and theories. Course content provides a foundation for work in advanced chemistry and related sciences.

CHEM 2123 (0-3-1) This laboratory-based course accompanies CHEM 2323, Organic Chemistry I. Laboratory activities will reinforce fundamental principles of organic chemistry, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Methods for the purification and identification of organic compounds will be examined. Prerequisite: CHEM 2323 Corequisite

CHEM 2125 (0-3-1) This laboratory-based course accompanies CHEM 2325, Organic Chemistry II. 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. Prerequisite: CHEM 2323, CHEM 2123, CHEM 2325 (Corequisite)

CHEM 2323 (3-0-3) 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. Prerequisite: CHEM 1312 and CHEM 1112 or CHEM 1412, CHEM 2123 Corequisite

CHEM 2325 (3-0-3) 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. Prerequisite: CHEM 2323, CHEM 2123, CHEM 2125 (Corequisite)

COSC

COSC 1336 (3-1-3) Introduces the fundamental concepts of structured programming. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy.

COSC 1337 (3-1-3) 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 2325 (3-1-3) 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. Prerequisite: COSC 1336

COSC 2336 (3-1-3) Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Prerequisite: COSC 1337/1437. (This course is included in the Field of Study Curriculum for Computer Science.) Prerequisite: COSC 1337

ECON

ECON 1301 (3-0-3) A survey of microeconomic and macroeconomic principles for 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.

ECON 2301 (3-0-3) 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.

ECON 2302 (3-0-3) 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.

ENGL

ENGL 1301 (3-0-3) 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.

ENGL 1302 (3-0-3) 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. Prerequisite: ENGL 1301

ENGL 2307 (3-0-3) Practical experience in the techniques of imaginative writing. May include fiction, nonfiction, poetry, or drama.

ENGL 2311 (3-0-3) 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.

ENGL 2314 (3-0-3) 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.

ENGL 2321 (3-0-3) A survey of the development of British literature from the Anglo-Saxon period to the present. 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 1301

ENGL 2322 (3-0-3) 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 1301

ENGL 2323 (3-0-3) 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 1301

ENGL 2326 (3-0-3) A survey of American literature from the period of exploration and settlement 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 1301

ENGL 2331 (3-0-3) A survey of world literature from the ancient world 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 1301

ENGL 2341 (3-0-3) The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film. Prerequisite: ENGL 1301

ENGR

ENGR 1201 (2-0-2) An introduction to the engineering profession with emphasis on technical communication and team-based engineering design. Prerequisite: MATH 1314

ENGR 1304 (2-4-3) 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. Prerequisite: MATH 1314

ENGR 2105 (0-3-1) 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.

ENGR 2301 (3-0-3) Basic theory of engineering mechanics, using calculus, involving the description of forces, moments, and couples acting on stationary engineering structures; equilibrium in two and three dimensions; free-body diagrams; friction; centroids; centers of gravity; and moments of inertia. Prerequisite: the first calculus-based physics course. Corequisite: a second course in calculus. Prerequisite: PHYS 2325

ENGR 2302 (3-0-3) 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

ENGR 2304 (2-4-3) Programming principles and techniques for matrix and array operations, equation solving, and numeric simulations applied to engineering problems and visualization of engineering information; platforms include spreadsheets, symbolic algebra packages, engineering analysis software, and laboratory control software.

ENGR 2305 (3-0-3) 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 Prerequisite: PHYS 2325, MATH 2414

GEOG

GEOG 1302 (3-0-3) 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.

GEOG 1303 (3-0-3) 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.

GEOL

GEOL 1403 (3-3-4) 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. Laboratory activities will cover methods used to collect and analyze earth science data.

GOVT

GOVT 2305 (3-0-3) 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: TSI Complete Reading

GOVT 2306 (3-0-3) Origin and development of the Texas constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas. Prerequisite: TSI Complete Reading

HIST

HIST 1301 (3-0-3) A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government. Prerequisite: TSI Complete Reading

HIST 1302 (3-0-3) 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: TSI Complete Reading

HIST 2312 (3-0-3) 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.

HIST 2321 (3-0-3) 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.

HORT

HORT 1401 (3-2-4) Structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management. Laboratory activities will reinforce the structure, growth, and development of horticultural plants.

HUMA

HUMA 1301 (3-0-3) 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.

HUMA 2319 (3-0-3) This interdisciplinary survey examines the diverse cultural, artistic, economic, historical, political, and social aspects of American minority communities. Topics may include race/ethnicity, gender, socioeconomic class, sexual orientation, national origin, age, disability, and religion.

HUMA 2323 (3-0-3) This course is a general study of diverse world cultures. Topics include cultural practices, social structures, religions, arts, and languages.

MATH

MATH 1314 (3-0-3) 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.

MATH 1316 (3-0-3) 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. Prerequisite: TSI complete Math

MATH 1325 (3-0-3) 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. Prerequisite: MATH 1324

MATH 1332 (3-0-3) 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.

MATH 1342 (3-0-3) 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.

MATH 1350 (3-0-3) 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

MATH 1351 (3-0-3) Concepts of geometry, probability, and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4 through 8) teacher certification. Prerequisite: MATH 1350

MATH 2312 (3-1-3) In-depth combined study of algebra, trigonometry, and other topics for calculus readiness. Prerequisite: MATH 1314 or MATH 1316

MATH 2313 (3-0-3) Limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas.

MATH 2318 (3-0-3) 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. Prerequisite: MATH 2314 or MATH 2414

MATH 2320 (3-0-3) 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. Prerequisite: MATH 2414

MATH 2342 (3-0-3) 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.

MATH 2413 (3-2-4) Limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas. Prerequisite: MATH 1316 or MATH 2312 or MATH 2412

MATH 2414 (3-2-4) Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals. Prerequisite: MATH 2413

MATH 2415 (3-2-4) 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. Prerequisite: MATH 2414

MUSI

MUSI 1306 (3-0-3) Understanding music through the study of cultural periods, major composers, and musical elements. Illustrated with audio recordings and live performances. (Does not apply to a music major degree.)

PHIL

PHIL 1301 (3-0-3) 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. Prerequisite: TSI Complete Reading

PHIL 1304 (3-0-3) A comparative study of world religions, including but not limited to Hinduism, Buddhism, Judaism, Christianity, and Islam.

PHIL 2303 (3-0-3) 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: TSI Complete Reading

PHIL 2306 (3-0-3) The systematic evaluation of classical and/or contemporary ethical theories concerning the good life, human conduct in society, morals, and standards of value.

PHYS

PHYS 1101 (0-3-1) This laboratory-based course accompanies PHYS 1301, College Physics I. 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. Prerequisite: PHYS 1301 (Corequisite)

PHYS 1102 (0-3-1) This laboratory-based course accompanies PHYS 1302, College Physics II. 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. Prerequisite: PHYS 1302 (Corequisite)

PHYS 1110 (0-3-1) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory. Prerequisite: PHYS 1310

PHYS 1115 (0-2-1) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

PHYS 1117 (0-2-1) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

PHYS 1301 (3-0-3) 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. Prerequisite: MATH 1314, MATH 1316 or MATH 2312 or MATH 2412 (Prerequisite), PHYS 1101 (Corequisite)

PHYS 1302 (3-0-3) 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. Prerequisite: PHYS 1301, PHYS 1101 or PHYS 1401 (Prerequisite), PHYS 1102 (Corequisite)

PHYS 1310 (3-0-3) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.

PHYS 1315 (3-0-3) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

PHYS 1317 (3-0-3) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

PHYS 1401 (3-3-4) This lecture and lab course should combine all of the elements of PHYS 1301 (lecture) and PHYS 1101 (lab), including the learning outcomes listed for both courses. Prerequisite: MATH 1314

PHYS 1402 (3-3-4) This lecture and lab course should combine all of the elements of PHYS 1302 (lecture) and PHYS 1102 (lab), including the learning outcomes listed for both courses. Prerequisite: PHYS 1401

PHYS 1410 (3-3-4) Conceptual topics and algebra-level problem solving in a survey course of basic physics principles intended for non-science majors. This course includes a laboratory.

PHYS 1415 (3-3-4) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

PHYS 1417 (3-3-4) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

PHYS 2125 (0-3-1) Basic laboratory experiments supporting theoretical principles presented in PHYS 2325 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. Prerequisite: PHYS 2325 (Corequisite)

PHYS 2126 (0-3-1) Laboratory experiments supporting theoretical principles presented in PHYS 2326 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. Prerequisite: PHYS 2326 (Corequisite)

PHYS 2325 (3-0-3) Fundamental principles of physics, using calculus, for science, computer science, and engineering majors; the principles and applications of classical mechanics, including harmonic motion, physical systems and thermodynamics; and emphasis on problem solving. Prerequisite: MATH 2413 (Prerequisite), PHYS 2125 (Corequisite)

PHYS 2326 (3-0-3) 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. Prerequisite: PHYS 2325, MATH 2414 (Prerequisite), PHYS 2126 (Corequisite)

PHYS 2425 (3-3-4) This lecture and lab course should combine all of the elements of PHYS 2325 University Physics I Lecture and PHYS 2125 University Physics I Lab, including the learning outcomes listed for both courses. Prerequisite: MATH 2413

PHYS 2426 (3-3-4) This lecture and lab course should combine all of the elements of 2326 University Physics II Lecture and 2126 University Physics II Lab, including the learning outcomes listed for both courses. Prerequisite: PHYS 2425

PSYC

PSYC 1100 (1-2-1) 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. (Crosslisted as EDUC 1300)

PSYC 2301 (3-0-3) General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes. Prerequisite: TSI Complete Reading

PSYC 2314 (3-0-3) 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. Prerequisite: TSI Complete Reading

SOCI

SOCI 1301 (3-0-3) 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: TSI Complete Reading

SOCI 1306 (3-0-3) 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: TSI Complete Reading

SOCI 2319 (3-0-3) 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.

SPAN

SPAN 1311 (3-0-3) 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.

SPAN 1312 (3-0-3) Continued development of basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level. Prerequisite: SPAN 1311 OR SPAN 1411

SPAN 1411 (4-0-4) 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.

SPAN 1412 (4-0-4) Continued development of basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level. Prerequisite: SPAN 1411 or SPAN 1311

SPCH

SPCH 1311 (3-0-3) Introduces basic human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking.

SPCH 1315 (3-0-3) 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.

SPCH 1318 (3-0-3) 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.

SPCH 1321 (3-0-3) 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.

TECA

TECA 1318 (3-2-3) A study of the factors that impact the well- being of the young child including healthy behavior, food, nutrition, fitness, and safety practices. Focuses 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 Assessment of Educational Progress 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.

TECA 1354 (3-0-3) A study of the physical, emotional, social, language, and cognitive factors impacting growth and development of children through adolescence.

Developmental

For contact hour information developmental courses, please consult your advisor.

DMTH

DMTH 0009 (0-2-0) This is a lab for students in NCBM 0009. Prerequisite: NCBM 0009 (Corequisite)

DMTH 0010 (0-2-0) This is a lab for students in NCBM 0010. Students completing this lab with a C or better have completed their TSI requirements for math. Prerequisite: NCBM 0010 (Corequisite)

DMTH 0100 (3-1-3) This course covers introductory algebra topics.

DMTH 0200 (3-1-3) 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. Students completing this course with a C or better have completed their TSI requirements for math. Prerequisite: DMTH 0100

INRW

INRW 0009 (0-2-0) This is a lab for students in NCBI 0009. Prerequisite: NCBI 0009 (Corequisite)

INRW 0010 (0-2-0) This is a lab for students in NCBI 0010. Students completing this lab with a C or better have completed their TSI requirements for reading and writing. Prerequisite: NCBI 0010 (Corequisite)

INRW 0100 (3-1-3) This course covers introductory integrated reading and writing topics.

INRW 0200 (3-1-3) Integration of critical reading and academic writing skills. Students completing this course with a C or better have completed their TSI requirements for reading and writing. Prerequisite: INRW 0100

NCBI

NCBI 0001 (0-1-0) Developmental reading and writing skills necessary for college readiness. This NCBO is the L-Series 4-hour co-taught model. Prerequisite: ENGL 1301 (Corequisite)

NCBI 0009 (0-2-0) Embedded reading and writing skills in technical course(s).

NCBI 0010 (0-2-0) Embedded reading and writing skills in technical course(s).

NCBI 0040 (0-0-0) A refresher designed to help students improve their score on the reading and writing portions of the TSI Assessment.

NCBI 0050 (2-0-0) This is a bootcamp review of reading/writing concepts.

NCBI 0100 (0-2-0) This course supports students in INRW 0100 if they score from 310-341 in reading or 310-349 on writing on the TSIA. Prerequisite: INRW 0100

NCBI 0301 (0-3-0) Developmental reading and writing skills necessary for college readiness. This NCBO is the 5-hour (3 hour academics, 2 hour DevEd) model. Prerequisite: ENGL 1301 (Corequisite)

NCBI 0305 (0-2-0) Developmental reading and writing skills necessary for college readiness. Prerequisite: GOVT 2305 (Corequisite)

NCBI 0311 (0-4-0) Developmental reading and writing skills necessary for college readiness. Prerequisite: HIST 1301 (Corequisite)

NCBI 0312 (0-4-0) Developmental reading and writing skills necessary for college readiness. Prerequisite: HIST 1302 (Corequisite)

NCBI 0315 (0-4-0) Developmental reading and writing skills necessary for college readiness. Prerequisite: SPCH 1315 (Corequisite)

NCBI 0321 (0-4-0) Developmental reading and writing skills necessary for college readiness. Prerequisite: HUMA 1301 (Corequisite)

NCBI 0322 (0-3-0) Developmental reading and writing skills necessary for college readiness. Prerequisite: PSYC 2301 (Corequisite)

NCBM

NCBM 0009 (0-2-0) Embedded math skills in technical course(s).

NCBM 0010 (0-2-0) Embedded math skills in technical course(s).

NCBM 0014 (0-1-0) Development of math and higher order thinking skills necessary for college readiness. This intervention is designed specifically for students who have a TSIA score greater than 335. (0-4-0)

NCBM 0016 (0-1-0) Development of math and higher order thinking skills necessary for college readiness. This intervention is designed specifically for students who have a TSIA score greater than 335. (0-4-0)

NCBM 0032 (0-1-0) Development of math and higher order thinking skills necessary for college readiness. This intervention is designed specifically for students who have a TSIA score greater than 335.

NCBM 0040 (0-0-0) A refresher designed to help students improve their score on the math portion of the TSI Assessment.

NCBM 0050 (2-0-0) This is a bootcamp review of math concepts.

NCBM 0100 (0-2-0) This course supports students in DMTH 0100 if they score from 310-335 in math on the TSIA. Prerequisite: DMTH 0100

NCBM 0314 (0-3-0) Development of math and higher order thinking skills necessary for college readiness. Prerequisite: MATH 1314 (Corequisite)

NCBM 0316 (0-3-0) Development of math and higher order thinking skills necessary for college readiness. This intervention is designed specifically for students who have a TSIA score greater than 335. (0-4-0) Prerequisite: MATH 1316 (Corequisite)

NCBM 0332 (0-3-0) Development of math and higher order thinking skills necessary for college readiness. Prerequisite: MATH 1332 (Corequisite)

First Year Seminar

TSTC

TSTC 1101 (1-1-1) Essential elements of student learning success at TSTC.

TSTC 1102 (1-1-1) Preparation for career success including professional and employability skills, interpersonal skills, and communication.

Online Orientation Course

SOLO

SOLO 100 Student Online Learning Orientation (0-0-0) The goal of the TSTC Student Online Learning Orientation is to increase your awareness, readiness and self-confidence in taking online learning courses.

Technical Courses

AACT

AACT 1371 Electronics Fundamentals in Automation (2-4-3) An entry level course in electronics to include Ohm's law, Kirchhoff's laws, AC circuits, capacitance, inductance, and circuit analysis techniques.

AACT 1372 Automation Safety and Compliance (2-4-3) Introduction to safety procedures and practices relating to Automation Applications. Includes Lock/Out tag out training, Arc flash training, working with fluids training, first aid training and CPR certifications.

AACT 1373 Administrative Skills for Technicians (2-4-3) An introductory course to automation administration skills. The course covers general office administration programs, equipment interpretation data, design of technical documentation and communication skills use in industry.

AACT 2371 Automation Control Systems Interfacing I (2-4-3) An introductory course to automation wiring to address industrial needs for connecting devices as they apply to industry. Includes basic interfacing programming, wiring methods, color coding identification, communications wiring and the troubleshooting of wiring faults in Automation. Prerequisite ELPT 1341

AACT 2372 Automation Control Systems Interfacing II (2-4-3) This course explores theoretical concepts of communications protocols programming. Emphasis in connecting devices as they apply to industry, and concepts of networking, data collection, and troubleshooting of Industrial Networks. Prerequisite ELPT 2319

AACT 2373 Factory I/O (2-4-3) A capstone course that provides students the opportunity to apply the knowledge and skills gained in the program. The course will be taken after completing specific specialized courses in the program to include programmable logic controller, Automation Control Systems Interfacing and Application of Industrial Automatic Controls. Prerequisite ELPT 2319

ABDR

ABDR 1203 Vehicle Design and Structural Analysis (1-2-2) An introduction to the collision repair industry with emphasis on safety, professionalism, and vehicle structural design.

ABDR 1215 Vehicle Trim and Hardware (1-2-2) A study of vehicle trim and glass service.

ABDR 1280 Cooperative Education - Autobody/Collision and Repair Technology/Technician (1-0-2) 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.

ABDR 1307 Collision Repair Welding (2-4-3) A study of industry and standard welding and cutting procedures. Prerequisite ABDR 1215

ABDR 1323 Front and Rear Wheel Alignment (2-4-3) Study of vehicle steering components including alignment, tire rotation, and balancing. Prerequisite ABDR 2435

ABDR 1349 Automotive Plastic and Sheet Molded Compound Repair (2-3-3) A comprehensive course in repair of interior and exterior plastics including the use of various types of adhesives.

ABDR 1359 Sheet Metal Fabrication I (2-3-3) A study of the basic shaping techniques required for fabricating sheet metal parts and pieces. Discussion will include custom cars and street rods.

ABDR 1371 Basic Paint Techniques, Equipment & Environmental Practices (1-6-3) An introduction to current refinishing products, equipment and procedures used in the automotive refinishing industry on damaged panels. Emphasis on surface preparation, corrosion protection, masking techniques, masking techniques, block sanding techniques, and refinishing repaired panels.

ABDR 1419 Basic Metal Repair (2-6-4) Covers basic metal principles and working techniques including proper tool usage and product application.

ABDR 1431 Basic Refinishing (2-6-4) An introduction to current refinishing products, shop safety, and equipment used in the automotive refinishing industry. Emphasis on surface preparation, masking techniques, and refinishing of trim and replacement parts. Prerequisite ABDR 1371

ABDR 1442 Structural Analysis and Damage Repair II (2-6-4) Continuation of general repair and replacement procedures for damaged structural parts and collision damage. Prerequisite ABDR 1323, ABDR 1419, ABDR 2435

ABDR 1458 Intermediate Refinishing (2-4-4) Training in mixing and spraying of automotive topcoats. Emphasis on formula ingredient, reducing, thinning, and special spraying techniques. Introduction to partial panel refinishing techniques and current industry paint removal techniques. Prerequisite ABDR 1371

ABDR 1481 Cooperative Education - Autobody/Collision and Repair Technology/Technician (1-0-4) 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.

ABDR 2255 Collision Repair Estimating (1-2-2) An advanced course in collision estimating and development of a damage report utilizing estimating software.

ABDR 2270 Advanced Application Processes of Refinishing (0-8-2) An advanced course in the practical application of acquired refinishing skills. Use industry relevant estimating programs and interpret work orders to create and implement a repair plan on live projects. Repairs will be completed by application of theory, concepts and skills involving specialized materials, tools, equipment, procedures, regulations, laws and interactions with the instructor/customer; and will demonstrate ethical behavior, safety practices, interpersonal and teamwork skills and appropriate written and verbal communication skills using the terminology of collision repair industry and the instructor/customer. Prerequisite ABDR 2449, ABDR 2551

ABDR 2281 Cooperative Education - Autobody/Collision and Repair Technology/Technician (1-0-2) 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 ABDR 2449, ABDR 2551

ABDR 2357 Collision Repair Shop Management (2-3-3) Examination of shop management functions and decision-making processes including planning, organizing, leading and staffing used in collision repair shops to ensure operational profitability. Prerequisite ABDR 2255

ABDR 2359 Structural Sectioning (2-4-3) Skill development in the practical application of welded panel replacement and structural sectioning procedures as well as practical equipment applications in structural vehicle straightening, alignment, welding, and corrosion protection. Prerequisite ABDR 1307, ABDR 1419, ABDR 2435

ABDR 2371 Refinishing Process I (2-4-3) The theory and practical application of spray booth and vehicle pre-spray preparation. Remove and perform final finishing. Apply decals and stripes with emphasis on paint problems and remedies. Prerequisite ABDR 1458, ABDR 1431

ABDR 2380 Cooperative Education - Autobody/Collision and Repair Technology/Technician (1-0-3) 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.

ABDR 2381 Cooperative Education - Autobody/Collision and Repair Technology/Technician (1-0-3) career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience.

ABDR 2435 Structural Analysis and Damage Repair IV (2-6-4) Continuation of skills development in the repair and replacement of major body units. Prerequisite ABDR 1215

ABDR 2447 Advanced Collision Repair Welding (2-4-4) Skill development in the use of advanced welding and cutting processes. Emphasizes current welding procedures and specific repair requirements for specialized metals. Prerequisite ABDR 1307

ABDR 2449 Advanced Refinishing (2-6-4) Application of multi-stage refinishing techniques. Advanced skill development solving refinishing problems. Application of multi-stage refinishing techniques with emphasis on formula mixing and special spraying techniques. Prerequisite ABDR 1458, ABDR 1431

ABDR 2453 Color Analysis and Paint Matching (2-6-4) Advanced course in color theory, analysis, tinting, and blending techniques for acceptable paint matching. Prerequisite ABDR 2449, ABDR 2551

ABDR 2502 Auto Body Mechanical and Electrical Service (3-6-5) A course in the repair, replacement, and/or service of collision damaged mechanical or electrical systems. Topics include drive train removal, reinstallation and service; cooling system service and repair; exhaust system service; and emission control systems. Additional topics include wire and connector repair, reading wiring diagrams, and troubleshooting. Prerequisite ABDR 1307, ABDR 1419, ABDR 2435

ABDR 2551 Specialized Refinishing Techniques (3-6-5) Advanced topics in specialty automotive refinishing. Emphasis on refinishing plastics, fiberglass, aluminum, and galvanized panels as well as custom graphics and current industry innovations. Prerequisite ABDR 1458, ABDR 1431

ACNT

ACNT 1311 Introduction to Computerized Accounting (2-4-3) Introduction to utilizing the computer in maintaining accounting records with primary emphasis on a general ledger package.

ACNT 1325 Principles of Accounting I (2-4-3) A study of accounting concepts and their application in transaction analysis and financial statement preparation. Emphasis on the accounting cycle for service and merchandising enterprises.

ACNT 1329 Payroll & Business Tax Accounting (2-2-3) A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment.

AERM

AERM 1107 Aviation Mathematics (0-3-1) Fundamentals of mathematics applied to aircraft principles and operations as required by the Federal Aviation Administration for airframe and powerplant mechanics.

AERM 1109 Aviation Physics (0-2-1) Fundamentals of physics applied to aircraft principles and operations as required by the Federal Aviation Administration for airframe and powerplant mechanics.

AERM 1112 Aviation Drawings (0-2-1) Fundamentals of aviation drawings applied to aircraft principles and operations as required by the Federal Aviation Administration for airframe and powerplant mechanics.

AERM 1203 Shop Practices (1-4-2) An introduction to shop safety, the correct use of hand tools, equipment and precision measurement, identification of aircraft hardware, and the fabrication of fluid lines and tubing. Emphasis on procedures for testing, heat treating, and inspection of aircraft structures.

AERM 1205 Weight and Balance (1-2-2) An introduction to Federal Aviation Administration (FAA) required subjects relating to the weighing of aircraft, the performance of weight and balance calculations, and appropriate maintenance record entries.

AERM 1208 Federal Aviation Regulations (1-4-2) A course in the use and understanding of Federal Aviation Administration (FAA) and aircraft manufacturers' publications, forms, and records; and the exercise of mechanic privileges within prescribed limitations.

AERM 1210 Ground Operations (1-3-2) An introductory course in fuels, servicing methods, safety procedures, aircraft movement, securing and operations of aircraft, external power equipment, aircraft cleaning, and corrosion control.

AERM 1240 Aircraft Propellers (1-4-2) Fundamentals of propeller design, function, and construction. Skill development in inspection, servicing, and repair of fixed-pitch, constant-speed, and feathering propellers and governing systems. Instruction in removal, balancing, and installation of propellers and fundamentals of safety are also addressed. Prerequisite AERM 1109 or AERM 1315

AERM 1241 Wood, Fabric, and Finishes (1-3-2) A course in the use and care of various covering materials, finishes, and wood structures including approved methods and procedures. Safety also addressed.

AERM 1243 Instruments and Navigation/Communication (1-2-2) A study of aircraft instruments and electronic flight instrument systems including testing and installing instruments; inspecting, checking, and troubleshooting navigation and communication systems; and inspecting and repairing antennas and electronic equipment installations. Prerequisite AERM 1314

AERM 1247 Airframe Auxiliary Systems (1-4-2) A comprehensive study of airframe auxiliary systems including cabin atmospheric control systems, ice and rain control systems for aircraft and engines, and fire detection and protection systems. Fundamentals of safety procedures also addressed. Prerequisite AERM 1109 or AERM 1315

AERM 1253 Aircraft Welding (1-2-2) Skill development in repair procedures for steel, magnesium, brass, and aluminum materials. Includes the selection and application of appropriate methods of welding, brazing, and soldering. Fundamentals of safety procedures also addressed. Prerequisite AERM 1203

AERM 1254 Aircraft Composites (1-4-2) Comprehensive concepts of the inspection and repair of composite, fabric, core, and laminated structural materials including doors, windows, bonded structures, and interior furnishings. Safety procedures to include the handling and storage of composite materials will also be addressed.

AERM 1314 Basic Electricity (2-4-3) A study of aircraft electrical systems and their requirements including the use of ammeter, voltmeter, and ohmmeter; series and parallel circuits; inductance and capacitance; magnetism; converting alternating current (AC) to direct current (DC); controlling devices; maintenance and servicing of aircraft batteries; and reading and interpreting aircraft electrical diagrams to include solid state devices and logic functions. Fundamentals of electrical safety also addressed.

AERM 1315 Aviation Science (2-4-3) Fundamentals of mathematics, physics, and drawings as they apply to aircraft principles and operations as required by the Federal Aviation Administration (FAA) for airframe and powerplant mechanics.

AERM 1345 Airframe Electrical Systems (2-4-3) A study of airframe electrical systems including installation, removal, disassembly, and repair of electrical components and related wiring. Fundamentals of electrical safety also addressed. Prerequisite AERM 1314

AERM 1350 Landing Gear Systems (2-3-3) General principles of inspection, servicing, overhaul, and repair of fixed and retractable landing gear systems and the operation and repair of position and warning systems. Includes coverage of systems, components, operation, and fundamentals of safety procedures.

AERM 1351 Aircraft Turbine Engine Theory (2-4-3) General principles of theory, history, and servicing of turbine engines to include lubrication, instrumentation, auxiliary power units, and exhaust systems. Fundamentals of safety procedures are also addressed. Prerequisite AERM 1109 or AERM 1315

AERM 1357 Fuel Metering and Induction Systems (2-4-3) Skill development in fuel metering and induction systems used on reciprocating and turbine engines including fuel metering systems, carburetors, induction systems, heat exchangers, and cooling systems. Fundamentals of safety procedures will also be addressed.

AERM 1444 Aircraft Reciprocating Engines (3-4-4) Reciprocating engines, their development, operating principles, and theory. Includes engine instruments, lubrication, and exhaust systems. Also addresses fundamentals of safety. Prerequisite AERM 1109 or AERM 1315

AERM 1449 Hydraulic, Pneumatic, and Fuel Systems (3-4-4) Skill development in inspecting, servicing, and maintaining aircraft fluid systems including hydraulics, pneumatics, and fuel. Application of concepts through detailed maintenance procedures. Fundamentals of safety procedures also addressed. Prerequisite AERM 1109 or AERM 1315 (Prerequisite or Corequisite)

AERM 1452 Aircraft Sheet Metal (2-6-4) Skill development in inspection and repair of sheet metal structures including forming, lay out, and bending of sheet metal and identification, selection, and installation of rivets and fasteners. Fundamentals of safety procedures also addressed. Prerequisite (AERM 1107, AERM 1112, AERM 1203) or (AERM 1315, AERM 1203)

AERM 1456 Aircraft Powerplant Electrical (2-6-4) General principles of theory, operation, and maintenance of powerplant electrical systems including ignition, starting, and fire protection systems. Fundamentals of safety procedures will also be addressed. Prerequisite AERM 1314

AERM 2230 FAA Review - Airframe (1-3-2) Review of Federal Aviation Administration subject matter in the General and Airframe curricula with an emphasis on enhancing knowledge and physical

skills in preparing for the FAA-required computer, oral and practical examinations.

AERM 2231 Airframe Inspection (1-4-2) In-depth coverage of methods and procedures to perform airframe conformity and air worthiness inspections (including One Hundred Hour Inspections) in accordance with Federal Aviation Regulations and manufacturer's service information. Safety procedures will also be addressed.

AERM 2234 FAA Review - Powerplant (1-3-2) Federal Aviation Administration subject matter in the General and Powerplant curricula with an emphasis on enhancing knowledge and physical skills in preparing for the FAA-required computer, oral, and powerplant examinations.

AERM 2333 Assembly and Rigging (2-3-3) A comprehensive study of the assembly and rigging of fixed and rotary-wing aircraft including structural alignment, balancing and rigging of control systems, and assembly of aircraft components. Fundamentals of safety procedures are also addressed.

AERM 2341 Powerplant and Auxiliary Power Units (2-2-3) Advanced concepts of auxiliary power unit (APU) and powerplant systems and components. Safety procedures will also be addressed.

AERM 2351 Aircraft Turbine Engine Overhaul (2-4-3) Comprehensive study in inspection, disassembly, reassembly, and replacement of gas turbine engines, sections, and components including operational troubleshooting, analysis, and safety. Prerequisite AERM 1351

AERM 2352 Aircraft Powerplant Inspection (2-3-3) In depth coverage of methods and procedures to perform powerplant conformity and airworthiness inspections (including one hundred hour inspections) in accordance with Federal Aviation Regulations and manufacturer's information. Safety procedures will also be addressed.

AERM 2447 Aircraft Reciprocating Engine Overhaul (2-6-4) A comprehensive study of reciprocating engine overhaul including measurement and inspection procedures. Instruction in removal and installation, inspections, checks, servicing, repair of engines, and safety procedures will also be addressed. Prerequisite AERM 1444

AGME

AGME 1353 Harvesting Equipment (2-4-3) Operation and maintenance including adjustment techniques of harvesting equipment.

AIRP

AIRP 1175 Intermediate Flight (0-3-1) Provides students with flight hours and skills necessary to fulfill solo cross-country hours required for the Federal Aviation Administration Commercial Pilot, single engine land, airplane certificate. Prerequisite AIRP 1215

AIRP 1215 Private Flight (0-5-2) Flight and ground training to prepare the student for the completion of the Federal Aviation Administration private pilot certificate.

AIRP 1301 Air Navigation (2-2-3) Instruction in Visual Flight rules navigation in the National Airspace System. Topics include, flight computers, plotters, and navigation logs and publications. Qualifies as part of a program leading to Federal Aviation Administration Private Pilot certification.

AIRP 1307 Aviation Meteorology (3-0-3) In-depth coverage of meteorological phenomena affecting aircraft flight. Topics include basic concepts of aviation meteorology in the study of temperature, pressure, moisture, stability, clouds, air masses, fronts, thunderstorms, icing, and fog. Also includes analysis and use of weather data for flight planning.

AIRP 1343 Aerodynamics (2-2-3) Study of the general principles of the physical laws of flight. Topics include physical terms and the four forces of flight: lift, weight, thrust, and drag. Aircraft design, stability control, and high-speed flight characteristics are also included.

AIRP 1345 Aviation Safety (3-0-3) A study of the fundamentals essential to the safety of flight. A survey of the aviation industry including decision-making factors, accident reporting, accident investigation, air traffic systems, and aircraft technologies.

AIRP 1417 Private Pilot Ground School (3-2-4) Basic ground school for the Federal Aviation Administration Private Pilot Certificate, providing the student with the necessary aeronautical knowledge that can be used for private pilot certification. Topics include principles of flight, radio procedures, weather, navigation, aerodynamics, and Federal Aviation Administration regulations.

AIRP 1451 Instrument Ground School (3-2-4) A study of basic instrument radio and navigation fundamentals used in instrument flight. Topics include a description and practical use of navigation systems and instruments, charts used for instrument flight, and Federal Aviation Administration regulations. Qualifies as part of a program leading to Federal Aviation Administration certification.

AIRP 2175 Human Factors in Aviation (1-0-1) Instruction in flight physiology, the decision-making process, pilot health maintenance, psychological aspects of flight, human behavior as related to the aircraft flight deck, and aeromedical information of significance to flight crews.

AIRP 2236 Certified Flight Instructor - Flight (0-5-2) Flight and ground instruction required to qualify for the Federal Aviation Administration Certified Flight Instructor - Airplane certificate. Prerequisite AIRP 2239

AIRP 2239 Commercial Flight (0-5-2) Flight instruction necessary to qualify for the Federal Aviation Administration Commercial Pilot Certificate. Instruction includes both dual and solo flight training to prepare the student to perform commercial pilot maneuvers. Prerequisite AIRP 2250

AIRP 2250 Instrument Flight (0-5-2) Preparation for completion of the Federal Aviation Administration Instrument Pilot Rating with mastery of all instrument flight procedures. Prerequisite AIRP 1215

AIRP 2251 Multiengine Flight (0-5-2) Preparation for the multiengine class rating which will be added to a current pilot certificate. Includes explanation and demonstration of all required

Federal Aviation Administration normal and emergency operations and procedures. Prerequisite AIRP 2239

AIRP 2331 Advanced Meteorology (3-0-3) Preparation for advanced aviation students to apply knowledge of varying meteorological factors including weather hazards to flight, techniques for minimizing weather hazards, and aviation weather services.

AIRP 2337 Commercial Ground School (3-0-3) A study of advanced aviation topics used for Federal Aviation Administration certification at the commercial pilot level. Includes preparation for the Federal Aviation Administration Commercial Airplane Practical test.

AIRP 2349 Instructor Ground School (2-2-3) Skill development in the fundamentals of teaching and learning in an aviation- oriented environment. Introduction to the techniques of instruction and analysis of flight maneuvers. Topics include flight instructor responsibilities and Federal Aviation Regulations relating to the instructor rating.

AIRP 2355 Propulsion Systems (3-1-3) In-depth coverage of aircraft engine theory and principles of operation of various types of aircraft engines. Topics include propellers, superchargers, engine accessories, controls, and instrumentation.

ARCE

ARCE 1303 Architectural Materials and Methods of Construction (2-2-3) Properties, specifications, vendor references, and uses of materials as related to architectural systems of structures.

ARCE 1321 Architectural Illustration (2-4-3) Architectural drawing and sketching. Emphasizes architectural structures in 3-D or pictorially either by hand or computer software. Prerequisite DFTG 1309 (Prerequisite or Corequisite)

ARCE 1342 Codes, Specifications, and Contract Documents (2-3-3) Study of ordinances, codes, and legal documents as they relate to specifications and drawing. Discussion of owner-architect-contractor responsibilities, duties, and legal relationships. Prerequisite ARCE 1303 (Prerequisite or Corequisite)

ARCE 1352 Structural Drafting (2-4-3) 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. Prerequisite DFTG 2328 (Prerequisite)

ARCE 2352 Mechanical and Electrical Systems (2-4-3) 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. Prerequisite DFTG 2328 (Prerequisite or Corequisite)

ARTC

ARTC 1302 Digital Imaging I (2-4-3) Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions.

ARTC 1305 Basic Graphic Design (2-4-3) Graphic design with emphasis on the visual communication process. Topics include basic terminology and graphic design principles.

ARTC 1310 Design Concepts (2-4-3) Fundamental techniques in conceptualizing. Includes all procedures from initial research to creating strategies to finalize a solution. Prerequisite GRPH 1359, ARTC 2317 (Corequisite)

ARTC 1313 Digital Publishing I (2-4-3) The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout. Prerequisite ARTC 1302 or ARTC 1305

ARTC 1317 Design Communication I (2-4-3) 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.

ARTC 1327 Typography (2-4-3) A study of letterforms and typographic concepts as elements of graphic communication. Emphasis on developing a current, practical typographic knowledge based on industry standards.

ARTC 1349 Art Direction I (2-4-3) 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. Prerequisite ARTC 2317, GRPH 1359

ARTC 1359 Visual Design for New Media (2-4-3) Visual design elements as they relate to new media. Emphasizes aesthetics and visual problem solving such as typographic issues, color management, hierarchy of information, image optimization, and effective layout. Prerequisite ARTC 1349, ARTC 2313

ARTC 2305 Digital Imaging II (2-4-3) 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. Prerequisite ARTC 1302

ARTC 2313 Digital Publishing II (2-4-3) Includes layout procedures from thumbnails and roughs to final comprehensive and print output. Emphasis on design principles for the creation of advertising and publishing materials, and techniques for efficient planning and documenting projects. Prerequisite ARTC 1305, ARTC 1313

ARTC 2317 Typographic Design (2-4-3) Exploration of typographic design including computer generated letterforms as elements of design. Includes theory and techniques of traditional, contemporary, and experimental typography. Prerequisite ARTC 1302, ARTC 1305

ARTC 2333 Publication Design (2-4-3) Development of skills and advanced knowledge of publishing software, with emphasis on the maintenance of visual continuity in documents for publication. Prerequisite ARTC 1359

ARTC 2335 Portfolio Development for Graphic Design (2-4-3) 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.

ARTC 2347 Design Communication II (2-4-3) 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. Prerequisite ARTC 1317

ARTC 2348 Digital Publishing III (2-4-3) A project based page layout course from concept to completion addressing design problems, preflight of files, color separations, and trapping techniques. Prerequisite ARTC 2313, GRPH 1359

ARTC 2349 Art Direction II (2-4-3) Mastery of advanced art direction projects with emphasis on selected topics in advertising campaigns. Includes written, oral, and visual skills. Prerequisite ARTC 1349, ARTC 2313

ARTC 2388 Internship - Commercial and Advertising Art (0-0-3) 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.

ARTV

ARTV 1345 3-D Modeling and Rendering I (2-4-3) 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. Prerequisite ARTC 1302

ARTV 1351 Digital Video (2-4-3) Producing and editing video and sound for multimedia or web productions. Emphasizes capture, editing, and outputting of video using a digital video workstation.

ARTV 2341 Advanced Digital Video (2-4-3) Advanced digital video techniques for post-production. Emphasizes integration of special effects and animation for film, video, and the Internet. Exploration of new and emerging compression and video streaming technologies. Prerequisite ARTV 1351

AUMT

AUMT 1166 Practicum (or Field Experience) - Automobile/ Automotive Mechanics Technology/Technician (0-0-1) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

AUMT 1167 Practicum (or Field Experience) - Automobile/ Automotive Mechanics Technology/Technician (0-0-1) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

AUMT 1280 Cooperative Education- Automobile/ Automotive Mechanics Technology/Tech (1-0-2) 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.

AUMT 1305 Introduction to Automotive Technology (2-4-3) An introduction to the automotive industry including automotive history, safety practices, shop equipment and tools, vehicle subsystems, service publications, professional responsibilities, and basic automotive maintenance. May be taught manufacturer specific.

AUMT 1307 Automotive Electrical Systems (2-4-3) An overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of, charging and starting systems, and electrical accessories. Emphasis on electrical principles schematic diagrams, and service manuals. May be taught manufacturer specific.

AUMT 1310 Automotive Brake Systems (2-4-3) Operation and repair of drum/disc type brake systems. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught with manufacturer specific instructions.

AUMT 1312 Basic Automotive Service (2-4-3) Basic automotive service. Includes compliance with safety and hazardous material handling procedures and maintenance of shop equipment.

AUMT 1345 Automotive Climate Control Systems (2-4-3) Diagnosis and repair of manual/electronic climate control systems. Includes the refrigeration cycle and EPA guidelines for refrigerant handling. May be taught manufacturer specific. Prerequisite AUMT 1201 or AUMT 1305 (Prerequisite), AUMT 1307 (Prerequisite or Corequisite)

AUMT 1380 Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (1-0-3) 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 AUMT 1310 (Prerequisite or Corequisite)

AUMT 1416 Automotive Suspension and Steering Systems (2-6-4) Diagnosis and repair of automotive suspension and steering systems including electronically controlled systems. Includes component repair, alignment procedures and tire and wheel service. May be taught manufacturer specific.

AUMT 1419 Automotive Engine Repair (2-6-4) Fundamentals of engine operation, diagnosis and repair. Emphasis on identification, inspection, measurements, and disassembly, repair, and reassembly of the engine. May be taught manufacturer specific. Prerequisite AUMT 1305

AUMT 1471 Introduction and Theory of Tesla Vehicles (2-6-4) This course is intended to educate the entry -level technician to the Tesla Motors advanced automotive technology. Topics studied will include, but not limited to: safety when working with or around high voltage systems, basic electrical systems, basic vehicle service procedures, and applying soft skills used in the Tesla automotive field.

AUMT 1472 Automotive Electrical, Chassis, Driver Assist Systems Theory (2-6-4) This course is intended to educate the entry -level technician to the Tesla Motors advanced automotive technology. Topics studied will include , but not limited to: safety when working

with or around high voltage systems, regeneration braking, electric vehicle applications and their integrated systems.

AUMT 1473 Automotive Electronics Theory (2-6-4) This course is intended to educate the entry -level technician to the Tesla Motors advanced automotive technology. Topics studied will include , but not limited to: safety when working with or around high voltage systems, inverter power transfer, battery technologies, battery management systems, High Voltage Bus & Charging, Pack Connector & Penthouse controls and Autonomous technology.

AUMT 1474 Infotainment Systems and Service Center Skills (2-6-4) This course is intended to educate the entry -level technician to the Tesla Motors advanced automotive technology. Topics studied will include , but not limited to: safety when working with or around high voltage systems, infotainment systems ans subsystems. Work activities at the Tesla Service Center.

AUMT 2188 Internship (or Field Experience) - Automobile/ Automotive Mechanics Technology/Technician (0-0-1) 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.

AUMT 2189 Internship (or Field Experience) - Automobile/ Automotive Mechanics Technology/Technician (0-0-1) 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 AUMT 2417 (Prerequisite or Corequisite), AUMT 2321 (Prerequisite)

AUMT 2302 Automotive Compression Ignition Engines & Fuel Systems (2-4-3) Diagnosis and repair of modern light-duty automotive compression ignition engines and related systems. Includes the use of advanced engine performance diagnostic equipment. Prerequisite AUMT 2417

AUMT 2307 Hybrid Sysems Diagnostics (2-4-3) An advanced study of hybrid vehicles and the unique characteristics of hybrid systems. Includes hybrid safety procedures and diagnosis and repair of hybrid systems. Prerequisite AUMT 2413, AUMT 2425 (Corequisite)

AUMT 2321 Automotive Electrical Diagnosis and Repair (2-4-3) Repair of automotive electrical subsystems, lighting, instrumentation, and accessories. Emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. May be taught manufacturer specific.

AUMT 2328 Automotive Service (2-4-3) Mastery of automotive service including competencies covered in related courses. May be taught manufacturer specific. Prerequisite AUMT 2413, AUMT 2417, AUMT 2321

AUMT 2337 Automotive Electronics (2-4-3) Study of electronic principles applied to microcomputers and communication systems. Includes digital fundamentals, and use of electronic test equipment. May be taught manufacturer specific. Prerequisite AUMT 2321 (Prerequisite or Corequisite)

AUMT 2357 Automotive Alternative Fuels (2-4-3) A study of the composition and use of various alternative automobile fuels including retrofit procedures and applications, emission standards, availability, and cost effectiveness. Overview of federal and state regulations concerning fuels.

AUMT 2380 Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (1-0-3) 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 AUMT 2413, AUMT 2417, AUMT 2321

AUMT 2413 Automotive Drive Train and Axles (2-6-4) A study of automotive clutches, clutch operation devices, manual transmissions/ transaxles, and differentials with emphasis on diagnosis and repair. May be taught with manufacturer specific instructions.

AUMT 2417 Automotive Engine Performance Analysis I (2-6-4) Theory, operation, diagnosis of drivability concerns, and repair of ignition and fuel delivery systems. Use of current engine performance diagnostic equipment. May be taught with manufacturer specific instructions. Prerequisite AUMT 1201 or AUMT 1305, AUMT 1307 (Prerequisite), AUMT 1419 (Prerequisite or Corequisite)

AUMT 2425 Automotive Automatic Transmission and Transaxle (2-6-4) A study of the operation, hydraulic circuits and electronic controls of modern automatic transmissions and automatic transaxles. Diagnosis, disassembly, and assembly procedures with emphasis on the use of special tools and repair techniques. May be taught manufacturer specific. Prerequisite AUMT 2417 (Prerequisite or Corequisite), AUMT 2321

AUMT 2434 Automotive Engine Performance Analysis II (2-6-4) Diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems. Includes use of advanced engine performance diagnostic equipment. May be taught manufacturer specific. Prerequisite AUMT 2417 (Prerequisite or Corequisite), AUMT 2321

AVIM

AVIM 2337 Aviation Law (3-0-3) A study of domestic and international aviation law.

AVNC

AVNC 1303 Introduction to Aviation Electronic Systems (3-0-3) An introduction to the relationship between aviation electronic systems and aircraft flight and navigational systems with emphasis on the operation and function of the systems.

AVNC 1306 FAA Regulations for Avionics Certified Repair Station (3-0-3) This course provides practical experience in the day-to-day operations of a Federal Aviation Administration Certified Repair Station. Students will perform tasks which will include completion of repair station and FAA forms and records, maintenance of technical data and servicing equipment.

AVNC 1343 Aviation Electrical and Electronic Systems Installation (2-4-3) A comprehensive study of and practical experience in the installation of avionic systems in aircraft, mounting electronic equipment, construction and installation of electrical wiring and cables, proper use of tools, selection of materials, and safety.

AVNC 1353 Operational Testing of Aviation Electronic Systems (2-4-3) Operation of ramp test equipment in common usage to text avionic systems. Emphasis on performance of functional checks of aviation electronic systems and any safety concerns.

AVNC 1391 Installation & Operational Testing of Avionics & Pitot-Static Systems (2-4-3) A practical experience in the planning and execution, and testing of avionics and pitot-static installations. Advanced test equipment will be used where required.

AVNC 2304 Foundations in Avionics Equipment Component Level Repairs (2-4-3) In-depth study of common circuit designs found in modern avionics equipment as well as a study of the electronics theory needed to troubleshoot these circuits.

AVNC 2308 Aviation Electrical and Electronics Systems Installation II (2-4-3) A continuation of AVNC 1343. This course is designed as a study of practical experience in the installation of avionics systems in aircraft, mounting electronic equipment, construction and installation of electrical wiring and cables, proper use of tools, and selection of materials.

AVNC 2345 Aviation Navigational Equipment Component Level Repair (2-4-3) Skills development in component level repair of modern aviation navigational systems including Very High Frequency Omni Range (VOR) and Instrument Landing Systems (ILS). Emphasis on equipment block diagram and specialized test equipment will be covered in detail.

AVNC 2350 Aviation Pulsed RF Equipment Component Level Repair (2-4-3) Skills development in component level repair of modern aviation pulsed Radio Frequency (RF) systems. Emphasis on equipment block diagram and specialized test equipment will be covered.

AVNC 2355 Advanced Aviation Electronics Troubleshooting (2-4-3) A capstone course designed for students to demonstrate acquired knowledge of avionics systems as well as display techniques required to troubleshoot those systems. The student will face component level repair scenarios.

AVNC 2357 Aviation Communication Component Level Repair (2-4-3) Skills development in component level repair of modern aviation communications and audio equipment. Emphasis on equipment block diagram and specialized test equipment will be covered.

BIOM

BIOM 1101 Biomedical Equipment Technology (1-0-1) Introduction to current biomedical job responsibilities, salaries, and classifications in the health care industry.

BIOM 1250 Diagnostic Ultrasound Imaging System (1-4-2) Diagnostic ultrasound imaging systems. Covers basic systems troubleshooting and problem solving.

BIOM 1270 Shop Skills for Biomedical Equipment Technicians (1-4-2) Skill development in the common repair tools and repair techniques used by the Biomedical Equipment Technician in the healthcare.

BIOM 1291 Special Topics in Biomedical Engineering-Related Technology/Technician (1-4-2) A study of theory, principles and application of the effective administration of technology in the Health care environment with emphasis on the practical understanding of current technology trends and their implications on health care. Topics include codes/standards, computer networks, technology administration/integration and the effective servicing of technology.

BIOM 1309 Applied Biomedical Equipment Technology (2-4-3) Introduction to biomedical instrumentation as related to anatomy and physiology. Includes medical devices for monitoring, diagnosis, and treatment of anatomical systems.

BIOM 1315 Medical Equipment Networks (2-4-3) Identification of basic principles of medical equipment networking. Hardware, software, and connectivity issues of medical equipment in healthcare facilities will be covered. Prerequisite BIOM 1373

BIOM 1341 Medical Circuits/Troubleshooting (2-4-3) Development of skills in troubleshooting of medical electronic circuits and utilization of test equipment. Prerequisite CETT 1303, CETT 1305

BIOM 1350 Diagnostic Ultrasound Imaging System (2-4-3) Diagnostic ultrasound imaging systems. Covers basic systems troubleshooting and problem solving. Prerequisite CETT 1303, CETT 1305

BIOM 1355 Medical Electronic Applications (2-4-3) Presentation of sensors, transducers, and supporting circuits used in medical instrumentation devices. Prerequisite BIOM 2301

BIOM 1373 Medical Software and Hardware (2-4-3) Overview of common medical equipment software, hardware, and operating system maintenance.

BIOM 2215 Physiological Instruments I (1-4-2) Theory of operation, circuit analysis, and troubleshooting physiological instruments. Prerequisite BIOM 2301

BIOM 2231 Biomedical Clinical Instrumentation (1-4-2) A study of theory, application, and principles of operation of instruments commonly used in a medical laboratory.

BIOM 2239 Physiological Instruments II (1-4-2) Graphic display recording devices. Includes defibrillators and multi-purpose diagnostic equipment. Prerequisite BIOM 2301 (Prerequisite), BIOM 2215 (Corequisite)

BIOM 2301 Safety in Health Care Facilities (2-4-3) Study of codes, standards and management principles related to biomedical instrumentation. Emphasizes application of safety test equipment, preventive maintenance procedures, and documentation of work performed. Prerequisite CETT 1303, CETT 1305

BIOM 2311 General Medical Equipment I (2-4-3) Analysis of selected current paths from a larger schematic. Discussion of

equipment and disassembly and reassembly of equipment. Prerequisite CETT 1303, CETT 1305

BIOM 2319 Fundamentals of X-Ray and Medical Imaging Systems (2-4-3) Radiation theory and safety hazards, fundamental circuits, and application of X-ray systems including circuit analysis and troubleshooting. Prerequisite CETT 1303, CETT 1305

BIOM 2333 Digital Radiography (2-4-3) General principles of digital radiography systems. Fundamentals of problem solving, troubleshooting, and analysis of image quality are emphasized. Prerequisite BIOM 2319

BIOM 2343 General Medical Equipment II (2-4-3) Theory and principles of operation of a variety of basic electro-mechanical equipment with emphasis on repair and service of actual medical equipment. Prerequisite BIOM 2301

BIOM 2345 Advanced Imaging Systems (2-4-3) Principles of operation and repair of computerized tomography (CT), magnetic resonance imaging (MRI), single photon emission computerized tomography, and other advanced imaging modalities. Prerequisite BIOM 2319

BIOM 2347 RF/X-Ray System (2-4-3) Principles of radiographic and fluoroscopic systems. Prerequisite BIOM 2319

BIOM 2388 Internship - Biomedical Technology/Technician (0-0-3) 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.

BMGT

BMGT 1309 Information and Project Management (2-4-3) 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.

BMGT 1327 Principles of Management (2-2-3) Concepts, terminology, principles, theories, and issues in the field of management.

BMGT 2347 Critical Thinking and Problem Solving (2-2-3) Interpreting data for problem solving and recommending corrective action. Emphasis on a structured approach to critical thinking and problem solving in a team environment.

BUSG

BUSG 1302 E-Business Management (2-4-3) Introduction to business. Includes the internet, infrastructure for electronic commerce, markup languages, web-based tools and software, security issues, and electronic payment systems. Also covers strategies for marketing, sales, and purchasing; legal, ethical, and tax issues; and management functions.

BUSG 1304 Intro to Financial Adv (2-2-3) A study of the financial principles when managing financial affairs. Includes topics such as budgeting, retirement, property ownership, savings, and investment planning.

BUSG 1315 Small Business Operations (2-2-3) Operating a small business. Emphasizes management functions including planning, leading, organizing, staffing, and controlling operations.

CBFM

CBFM 1303 Boiler Maintenance (2-2-3) Boiler maintenance procedures with emphasis on the various components associated with boilers.

CDEC

CDEC 1318 Wellness of the Young Child (2-3-3) Factors impacting the well-being of young children. Includes healthy behavior, food, nutrition, fitness, and safety practices. Focuses on local and national standards and legal implications of relevant policies and regulations. Course content is aligned with State Board of Educator Certification Pedagogy and Professional Responsibilities standards. Requires students to participate in a minimum of 16 hours field experience with children from infancy through age 12 in a variety of settings with varied and diverse populations.

CDEC 1321 The Infant and Toddler (3-0-3) 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.

CDEC 1356 Emergent Literacy for Early Childhood (2-4-3) An exploration of principles, methods, and materials for teaching language and literacy through a play-based integrated curriculum to children from birth through age eight.

CDEC 1359 Children with Special Needs (2-4-3) 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.

CDEC 2340 Instructional Techniques for Children with Special Needs (2-4-3) Exploration of development and implementation of curriculum for children with special needs.

CETT

CETT 1302 Electricity Principles (2-4-3) Principles of electricity including proper use of test equipment, A/C and D/C circuits, and component theory and operations.

CETT 1303 DC Circuits (2-4-3) A study of the fundamentals of direct current including Ohm's law, Kirchhoff's laws and circuit analysis techniques.

CETT 1305 AC Circuits (2-4-3) A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Prerequisite CETT 1303 or IEIR 1302 (Prerequisite or Corequisite) OSA may be exempt from requisite. Consult with dept.

CETT 1325 Digital Fundamentals (2-4-3) An entry level course in digital electronics to include numbering systems, logic gates, Boolean algebra, and combinational logic. Prerequisite CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)

CETT 1329 Solid State Devices (2-4-3) A study of diodes, transistor characteristics and other semiconductor devices, including analysis of static and dynamic characteristics, biasing techniques, and thermal considerations. Prerequisite CETT 1305, IEIR 1371 or IEIR 1304

CETT 1341 Solid State Circuits (2-4-3) A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis. Prerequisite AACT 1371

CHEF

CHEF 1205 Sanitation and Safety (1-2-2) A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards.

CHEF 1340 Meat Preparation and Cooking (2-4-3) Study of the preparation, storage, and cooking techniques for beef, pork, lamb, poultry, seafood, and game. Includes moist, dry, and combination heat preparation methods as related to both classical and modern methods of preparation of dishes. Prerequisite IFWA 1401

CHEF 1441 American Regional Cuisine (2-6-4) A study of the development of regional cuisine's in the United States with emphasis on the similarities in production and service systems. Application of skills to develop, organize, and build a portfolio of recipe strategies and production systems. Prerequisite IFWA 1427, PSTR 2431

CHEF 1445 International Cuisine (2-6-4) The study of classical cooking skills associated with the preparation and service of international and ethnic cuisines. Topics include similarities between food production systems used in the United States and other regions of the world. Prerequisite IFWA 1427, PSTR 2431

CJSA

CJSA 1325 Criminology (3-0-3) Current theories and empirical research pertaining to crime and criminal behavior and its causes, methods of prevention, systems of punishment, and rehabilitation.

CNBT

CNBT 1300 Residential and Light Commercial Blueprint Reading (2-4-3) Introductory blueprint reading for residential and light commercial construction.

CNBT 1302 Mechanical, Electrical & Plumbing Systems in Construction I (2-4-3) A presentation of the basic mechanical, plumbing, and electrical components in construction and their relationship to residential and light commercial buildings.

CNBT 1313 Concrete I (2-4-3) Various techniques for concrete utilization in residential and light commercial construction.

CNBT 1315 Field Engineering I (2-4-3) Surveying equipment, sketches, proper field note taking, methods of staking, layout of building site, and horizontal and vertical controls.

CNBT 1316 Construction Technology I (2-4-3) Introduction to site preparation, foundations, form work, safety, tools, and equipment.

CNBT 1342 Building Codes and Inspections (2-4-3) Building codes and standards applicable to building construction and inspection processes.

CNBT 1346 Construction Estimating I (2-4-3) Fundamentals of estimating materials and labor costs in construction.

CNBT 1350 Construction Technology II (2-4-3) Framing in residential and light commercial construction. Includes safety, tools, and equipment used in floor, wall, ceiling, and roof framing methods and systems. Prerequisite CNBT 1316

CNBT 1359 Project Scheduling (2-4-3) A study of conventional scheduling using critical-path-method; precedence and arrow networks; bar charts; monthly reports; and fast track scheduling.

CNBT 1450 Construction Technology II (2-6-4) Demonstrate safety practices and procedures; use of tools and equipment associated with framing in construction; estimate material requirements from blueprints; and demonstrate methods used in framing. Prerequisite CNBT 1316

CNBT 1453 Construction Technology III (2-6-4) Exterior Trim and finish for residential and light commercial construction. Prerequisite CNBT 1316

CNBT 1680 Cooperative Education - Construction Engineering Technology/Technician (1-0-6) 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.

CNBT 2317 Green Building (2-4-3) Methods and materials used for buildings that conserve energy, water, and human resources.

CNBT 2337 Construction Estimating II (2-4-3) Advanced estimating concepts using computer software for construction and crafts.

CNBT 2342 Construction Management I (2-4-3) Management skills on the job site. Topics include written and oral communications, leadership and motivation, problem solving, and decision making.

CNBT 2344 Construction Management II (2-4-3) 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.

CNBT 2439 Construction Technology IV (2-6-4) Interior finish for residential and light commercial construction. Prerequisite CNBT 1316

CSIR

CSIR 1355 Industry Certifications (2-4-3) Preparation for the certifications required by industry. Prerequisite IEIR 1371 OR CETT 1302

CSIR 2301 Communication Electronics Components (2-4-3) Introduction to the theory of vacuum tubes and solid-state devices. Prerequisite IEIR 1371 or CETT 1302

CVOP

CVOP 1301 Commercial Drivers License Driving Skills (2-3-3) Overview of the State of Texas Class A Commercial Driver's License driving test. In-depth coverage of in-cab air brake test, proper shifting, right and left-hand turns, movement in traffic, parking of a tractor trailer, highway and city driving, and backward movement and control. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370

CVOP 1305 Commercial Drivers License Written Skills (2-4-3) Overview of the State of Texas Class A Commercial Driver's License written test. In-depth coverage of general knowledge, air brakes, combination vehicle, doubles and triples, tankers, and hazardous materials. Includes preparation for mastery of the Commercial Drivers License written examination. Prerequisite DOT Physical and Medical Card

DAAC

DAAC 1304 Pharmacology of Addiction (3-0-3) Emphasizes pharmacological effects of addiction, tolerance, dependence, cross addiction, drug interaction, withdrawal, and recovery. Describes the psychological and physiological effects of substance use and behaviors.

DAAC 1305 Co-Occurring Disorders (3-0-3) Provides students with an overview of co-occurring psychiatric and substance use disorders and their impact on the individual, family, and community. Includes an integrated approach to address the issues accompanying the illness.

DAAC 1309 Assessment of Substance-Related and Addictive Disorders (2-2-3) Exploration of procedures and tools used to identify substance-related and addictive disorders and assess a client's problems, strengths, deficits, and needs.

DAAC 1311 Counseling Theories (3-0-3) An examination of major theories and current treatment modalities used in the field of counseling.

DAAC 1317 Basic Counseling Skills (2-2-3) An overview and application of the basic counseling skills.

DAAC 1319 Substance-Related and Addictive Disorders (3-0-3) An overview of causes and consequences of substance-related and addictive disorders, the major drug classifications, and the counselor's code of ethics.

DAAC 2301 Therapeutic Communities in a Criminal Justice Setting (2-2-3) A study of therapeutic communities as an approach to rehabilitation of incarcerated substance users.

DAAC 2306 Substance Abuse Prevention I (3-0-3) Examination of substance use disorder prevention.

DAAC 2307 Addicted Family Intervention (3-0-3) Examination of family systems focusing on the effects of addiction and recovery.

DAAC 2341 Counseling Alcohol and Other Drug Addictions (3-0-3) Advanced examination of knowledge, skills, attitudes, techniques, confidentiality and ethical guidelines applied in the counseling, treatment, prevention, and recovery of substance use disorders.

DAAC 2343 Current Issues (3-0-3) Examination of current issues related to substance use and addictive disorders.

DAAC 2354 Dynamics of Group Counseling (2-2-3) Exploration of group counseling skills, techniques, stages of group development, and confidentiality and ethics.

DAAC 2366 Practicum (or Field Experience) - Substance Abuse/ Addiction Counseling (0-0-3) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

DEMR

DEMR 1301 Shop Safety and Procedures (2-4-3) A study of shop safety, rules, basic shop tools, and test equipment.

DEMR 1305 Basic Electrical Systems (2-4-3) Basic principles of electrical systems of diesel powered equipment with emphasis on starters, alternators, and batteries.

DEMR 1316 Basic Hydraulics (2-4-3) Fundamentals of hydraulics including components and related systems.

DEMR 1317 Basic Brake Systems (2-4-3) Basic principles of brake systems of diesel powered equipment. Emphasis on maintenance, repairs, and troubleshooting.

DEMR 1321 Power Train I (2-4-3) Fundamental repair and theory of power trains including clutches, transmissions, drive shafts, and differentials. Emphasis on inspection and repair.

DEMR 1323 Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair (2-4-3) Introduction to heating, ventilation, and air conditioning theory, testing, and repair. Emphasis on refrigerant reclamation, safety procedures, specialized tools, and repairs.

DEMR 1327 Tractor Trailer Service and Repair (2-4-3) An introduction to and familiarization with components and systems

related to tractor trailer service. Emphasis on records required by the Department of Transportation. Prerequisite DEMR 1317

DEMR 1329 Preventative Maintenance (2-4-3) An introductory course designed to provide the student with basic knowledge of proper servicing practices. Content includes record keeping and condition of major systems.

DEMR 1330 Steering and Suspension I (2-4-3) A study of design, function, maintenance, and repair of steering and suspension systems. Emphasis on troubleshooting and repair of failed components.

DEMR 1380 Cooperative Education - Diesel Mechanics Technology/ Technician (1-0-3) 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.

DEMR 1410 Diesel Engine Testing and Repair I (2-4-4) An introduction to testing and repairing diesel engines including related systems and specialized tools.

DEMR 1447 Power Train II (2-4-4) Continuation of fundamentals and theory of power train systems. Emphasis on disassembly, inspection, and repair of power train components. Prerequisite DEMR 1321 or DEMR 1421

DEMR 1680 Cooperative Education - Diesel Mechanics Technology/ Technician (1-0-6) 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.

DEMR 2332 Electronic Controls (2-4-3) Advanced skills in diagnostic and programming techniques of electronic control systems. Prerequisite DEMR 1305, DEMR 2412

DEMR 2334 Advanced Diesel Tune-Up and Troubleshooting (2-4-3) Advanced concepts and skills required for tune-up and troubleshooting procedures of diesel engines. Emphasis on the science of diagnostics with a common sense approach. Prerequisite DEMR 2412, DEMR 2312 or AUMT 2417

DEMR 2335 Advanced Hydraulics (2-4-3) Advanced study of hydraulic systems and components including diagnostics and testing of hydraulic systems. Prerequisite DEMR 1316 or DEMR 1416

DEMR 2344 Automatic Power Shift and Hydrostatic Transmissions II (2-4-3) Extended study of the operation, maintenance, and repair of automatic power shift hydrostatic transmissions. Prerequisite DEMR 1321 or DEMR 2312 or DEMR 2412

DEMR 2348 Failure Analysis (2-4-3) An advanced course designed for analysis of typical part failures on equipment.

DEMR 2412 Diesel Engine Testing and Repair II (2-4-4) Continuation of Diesel Engine Testing and Repair I. Coverage of testing and repairing diesel engines including related systems and specialized tools. Prerequisite DEMR 1410 (Prerequisite or Corequisite)

DFTG

DFTG 1309 Basic Computer-Aided Drafting (2-4-3) 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, coordinate systems, and plot/print to scale.

DFTG 1313 Drafting for Specific Occupations (2-4-3) Discussion of theory and practice with drafting methods and the terminology required to prepare working drawings in specific or various occupational fields.

DFTG 1317 Architectural Drafting - Residential (2-4-3) Architectural drafting procedures, practices, terms, and symbols. Preparation of detailed working drawings for residential structures. Emphasis on light frame construction methods. Prerequisite ARCE 1321 (Prerequisite)

DFTG 1325 Blueprint Reading and Sketching (2-4-3) An introduction to reading and interpreting working drawings for fabrication processes and associated trades. Use of sketching techniques to create pictorial and multiple-view drawings.

DFTG 1329 Electro-Mechanical Drafting (2-4-3) A basic course including layout and design of electro-mechanical equipment from engineering notes and sketches. Prerequisite DFTG 1309 (Prerequisite)

DFTG 1330 Civil Drafting 1 (2-4-3) Preparation of civil drawings including drafting methods and principles used in civil engineering. Prerequisite DFTG 1309 (Prerequisite)

DFTG 1333 Mechanical Drafting (2-4-3) Study of mechanical drawings using dimensioning and tolerances, sectioning techniques, orthographic projection, and pictorial drawings. Prerequisite DFTG 1309 (Prerequisite)

DFTG 1345 Parametric Modeling and Design (2-4-3) Parametric-based design software for 3D design and drafting. Prerequisite DFTG 1309 (Prerequisite or Corequisite) OSA may be exempt from requisite. Consult with dept.

DFTG 1358 Electrical/Electronics Drafting (2-4-3) Electrical and electronic drawings stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Prerequisite DFTG 1329 (Prerequisite)

DFTG 1393 Special Topics in Civil Drafting Civil Engineering Cad/ Cadd (2-4-3) 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. Prerequisite DFTG 2321 (Prerequisite)

DFTG 1395 Special Topics in Mechanical Drafting and Mechanical Drafting CAD/CADD (2-4-3) 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. Prerequisite DFTG 2335 (Prerequisite)

DFTG 2302 Machine Drafting (2-4-3) Production of detail and assembly drawings of machines, threads, gears, utilizing tolerances, limit dimensioning, and surface finishes. Prerequisite DFTG 1333 (Prerequisite)

DFTG 2306 Machine Design (2-4-3) Theory and practice of design. Projects in problem-solving, including press fit, bolted and welded joints, and transmission components. Prerequisite DFTG 2335 (Pre)

DFTG 2312 Technical Illustration and Presentation (2-4-3) Pictorial drawing including isometrics, obliques, perspectives, charts, and graphs. Emphasis on rendering and using different media. Prerequisite DFTG 2328 (Prerequisite)

DFTG 2321 Topographical Drafting (2-4-3) Plotting of surveyor's field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses. Prerequisite DFTG 1330 (Prerequisite)

DFTG 2323 Pipe Drafting (2-4-3) A study of pipe fittings, symbols, specifications and their applications to a piping process system. Creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics. Prerequisite DFTG 1309 (Prerequisite)

DFTG 2328 Architectural Drafting - Commercial (2-4-3) 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. Prerequisite DFTG 1317 (Prerequisite)

DFTG 2331 Adv Techn-Architect Design & Drafting Design and Drafting (2-4-3) Use of architectural specific software to execute the elements required in designing standard architectural exhibits utilizing custom features to create walls, windows and specific design requirements for construction in residential/commercial and industrial architecture. Prerequisite DFTG 2328 (Prerequisite) OSA may be exempt from requisite. Consult with dept.

DFTG 2332 Advanced Computer-Aided Drafting (2-4-3) Application of advanced CAD techniques. Prerequisite DFTG 2340 (Prerequisite)

DFTG 2335 Advanced Technologies in Mechanical Design and Drafting (2-4-3) Use parametric-based software for mechanical design for advanced modeling and analysis. Prerequisite DFTG 2302 (Prerequisite)

DFTG 2340 Solid Modeling/Design (2-4-3) A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. Prerequisite DFTG 2302 (Prerequisite)

DFTG 2350 Geometric Dimensioning and Tolerancing (2-4-3) Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings. Prerequisite DFTG 2335 (Prerequisite)

DFTG 2357 Advanced Technologies in Pipe Design and Drafting (2-4-3) Advanced design and production techniques using specialized process plant based design software. Prerequisite DFTG 1309 (Prerequisite)

DFTG 2386 Internship - Drafting and Design Technology/Technician, General (0-0-3) 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 DFTG 1309 (Prerequisite)

DHYG

DHYG 1207 General and Dental Nutrition (2-0-2) General nutrition and nutritional biochemistry emphasizing the effect nutrition has on oral health.

DHYG 1211 Periodontology (1-3-2) Normal and diseased periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics.

DHYG 1215 Community Dentistry (1-4-2) 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.

DHYG 1227 Preventive Dental Hygiene Care (1-3-2) 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.

DHYG 1235 Pharmacology for the Dental Hygienist (1-2-2) Classification of drugs and their uses, actions, interactions, side effects, contraindications, with emphasis on dental applications.

DHYG 1239 General and Oral Pathology (1-2-2) Disturbances in human body development, diseases of the body, and disease prevention measures with emphasis on the oral cavity and associated structures.

DHYG 1260 Clinical - Dental Hygiene/Hygienist (0-0-2) 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 DHYG 1331

DHYG 1261 Clinical - Dental Hygiene/Hygienist (0-0-2) 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 DHYG 1260

DHYG 1301 Orofacial Anatomy, Histology & Embryology (2-4-3) The histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification.

DHYG 1304 Dental Radiology (2-3-3) Fundamentals of oral radiography, including techniques, interpretation, quality assurance, and ethics.

DHYG 1319 Dental Materials (2-3-3) Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry.

DHYG 1331 Preclinical Dental Hygiene (1-7-3) 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.

DHYG 2153 Dental Hygiene Practice (1-0-1) 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.

DHYG 2201 Dental Hygiene Care I (1-3-2) Dental hygiene care for the medically or dentally compromised patient including supplemental instrumentation techniques.

DHYG 2360 Clinical - Dental Hygiene/Hygienist (0-0-3) 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 DHYG 1261

DHYG 2361 Clinical - Dental Hygiene/Hygienist (0-0-3) 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 DHYG 2360

EDTC

EDTC 1164 Practicum (or Field Experience) - Teacher Assistant/ Aide (0-0-1) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EDTC 1301 Educational Systems (2-4-3) A study of the role and responsibilities of educational personnel with emphasis on development of professionalism and communication strategies. Topics include the various codes of ethics governing the educational field, the issue of confidentiality, learners' rights and responsibilities, and challenges facing schools.

EDTC 1307 Introduction to Teaching Reading (2-4-3) General principles of reading instruction. Topics include emergent literacy, reading readiness, reading instruction, literacy-based environments, and a review of varied materials and techniques for teaching reading.

EDTC 1321 Bilingual Education (2-2-3) An overview of bilingual education. Topics include awareness of cultural diversity, assessment strategies, teaching techniques, instructional activity development, and historical/philosophical concepts of bilingual/ bicultural education.

EDTC 1325 Multicultural Education (2-2-3) An examination of cultural diversity found in society and reflected in the classroom. Topics include the study of major cultures and their influence on lifestyle, behavior, learning, intercultural communication and teaching, as well as psychosocial stressors encountered by diverse cultural groups.

EDTC 1341 Instructional Technology and Computer Applications (2-2-3) Examination of specialized educational technology. Topics include the integration of educational computer terminology, system operations, software, and multimedia in the contemporary classroom environment.

EDTC 1364 Practicum (or Field Experience) - Teacher Assistant/ Aide (0-0-3) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EDTC 1373 Writing Problems (3-0-3) An in depth coverage of writing difficulties at the elementary level. Emphasis will be on the foundations and theories of writing at the elementary level, required curriculum to be taught, instructional techniques to utilize with students, models of teaching students, assessment techniques, and lesson planning strategies useful in working with the elementary student.

EDTC 1374 Teaching Math & Science in the Elementary School (2-4-3) Practical approaches for introducing math and science concepts in an elementary classroom lab environment with an emphasis on problem solving, inquiry, and critical thinking. Topics include basic math and science concepts and properties, diagnostic testing, pedagogy, and recognizing and recommending corrective teaching strategies.

EDTC 1375 Issues in Special Needs Education (3-0-3) An examination of current research, federal and state regulations, and programs for students with exceptionalities within the public school environment. Topics address methods for supporting instructional planning and the implementation of program goals and objectives.

EDTC 2305 Reading Problems (2-4-3) In-depth coverage of reading difficulties. Emphasis on the theories, strategies, recognition, and remediation of reading problems. Topics include assessment, direct instruction, and motivational/interactive literacy activities.

EDTC 2311 Instructional Practices and Effective Learning Environments (2-4-3) General principles for selecting developmentally appropriate strategies in core curriculum areas, planning the classroom environment, and instructional accommodations and modifications.

EDTC 2317 Guiding Student Behavior (2-4-3) Developmentally appropriate and indirect guidance techniques for use in various school environments. Topics include identifying causes of inappropriate behavior, establishing and managing routines, the environment's role in promoting positive behavior, promoting self-esteem negotiation/conflict resolution strategies, and enhancing positive self-direction. Emphasis in implementation of a behavior management plan.

EEIR

EEIR 1309 National Electrical Code (2-4-3) Interpretation of the National Electrical Code for residential, commercial and industrial wiring. Emphasis on designing, constructing, and troubleshooting electrical systems. Prerequisite CETT 1305, ELPT 1341

ELMT

ELMT 1301 Programmable Logic Controllers (2-4-3) An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment. Prerequisite CETT 1325

ELMT 1305 Basic Fluid Power (2-4-3) Basic fluid power course covering pneumatic and hydraulic systems, fluid power symbols, operating theory, components, and basic electrical and manual controls.

ELMT 1373 Pumps and Compressors Control (2-4-3) This course explores study of the theory and operations of various types of pumps and compressors. Topics include mechanical circuit, electrical circuit with emphasis in 3 phase control, mechanical safety devices, flow control devices and pressure control devices.

ELMT 1491 Special Topics in Electromechanical Technology/ Technician (2-4-4) This course is designed to familiarize the student with concepts in electro-mechanical technology specific to wind turbines.

ELMT 2239 Advanced Programmable Logic Controllers (1-4-2) Advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting ladder logic, and interfacing to equipment. Prerequisite ELMT 1301

ELMT 2333 Industrial Electronics (2-4-3) Devices, circuits, and systems primarily used in automated manufacturing and/or process control including computer controls and interfacing between mechanical, electrical, electronic, and computer equipment. Includes presentation of programming schemes.

ELMT 2335 Certified Electronics Technician Training (2-4-3) Review of electronics concepts and principles in preparation for sitting for a certification examination administered by an outside organization or agency. Prerequisite CETT 1325

ELMT 2339 Advanced Programmable Logic Controllers (2-4-3) Advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting ladder logic, and interfacing to equipment. Prerequisite ELMT 1301 or ELPT 2319

ELMT 2341 Electromechanical Systems (2-4-3) Application of electromechanical systems. Emphasizes programmable control devices and solid state systems.

ELMT 2371 Industrial Control Power Devic (2-4-3) This course explores theoretical concepts in power devices control. Emphasis in 3 phase control, system design, protection control devices, wiring and troubleshooting. In-depth coverage of power devices applications. Prerequisite CETT 1305

ELMT 2480 Cooperative Education - Electromechanical Technology/ Electromechanical Engineering Technology (1-0-4) 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.

ELPT

ELPT 1311 Basic Electrical Theory (2-4-3) Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current.

ELPT 1321 Introduction to Electrical Safety and Tools (2-2-3) Safety rules and regulations. Includes the selection, inspection, use, and maintenance of common tools for electricians.

ELPT 1325 National Electrical Code I (2-2-3) An introductory study of the National Electric Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on wiring design, protection, methods, and materials; equipment for general use; and basic calculations.

ELPT 1329 Residential Wiring (2-4-3) Wiring methods for single family and multi-family dwellings. Includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures.

ELPT 1341 Motor Control (2-4-3) Operating principles of solid-state and conventional controls along with their practical applications. Includes braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretations. Prerequisite AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371 OSA may be exempt from requisite. Consult with dept.

ELPT 1345 Commercial Wiring (2-4-3) Commercial wiring methods. Includes overcurrent protection, raceway panel board installation, proper grounding techniques, and associated safety procedures.

ELPT 1351 Electrical Machines (2-4-3) Direct current (DC) motors, single-phase and polyphase alternating current (AC) motors, generators, and alternators. Emphasis on construction, characteristics, efficiencies, starting, and speed control. Prerequisite ELPT 1341

ELPT 1357 Industrial Wiring (2-4-3) Wiring methods used for industrial installations. Includes motor circuits, raceway and bus way installations, proper grounding techniques, and associated safety procedures. Prerequisite ELPT 1329 or ELPT 1345

ELPT 1380 Cooperative Education - Electrical and Power Transmission Installation/Installer, General (1-0-3) 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.

ELPT 1681 Cooperative Education - Electrical and Power Transmission Installation/ Installer, General (1-0-6) 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.

ELPT 2319 Programmable Logic Controllers I (2-4-3) Fundamental concepts of programmable logic controllers, principles of operation, and numbering systems as applied to electrical controls. Prerequisite ELPT 1341 (Prerequisite or Corequisite)

ELPT 2323 Transformers (2-3-3) Transformer types, construction, connections, protection, grounding, and associated safety procedures. Prerequisite ELPT 2335

ELPT 2331 AC/DC Drives (2-4-3) Installation and maintenance of alternating current (AC) and direct current (DC) variable speed drives with emphasis on application, operating characteristics, and troubleshooting techniques.

ELPT 2335 Electrical Theory and Devices (2-3-3) Electrical and electronic measuring devices and their applications to the use of electrical power. Includes calculating and balancing single-phase and three-phase systems. Prerequisite CETT 1305 or MATH 1316

ELPT 2339 Electrical Power Distribution (2-2-3) Design, operation, and technical details of modern power distribution systems including generating equipment, transmission lines, plant distribution, and protective devices. Includes calculations of fault current, system load analysis, rates, and power economics.

ELPT 2343 Electrical Systems Design (2-3-3) Electrical design of commercial and/or industrial projects including building layout, types of equipment, placement, sizing of electrical equipment, and all electrical calculations according to the requirements of the National Electrical Code (NEC). Prerequisite DFTG 1313, EEIR 1309 or ELPT 2339

ELPT 2347 Electrical Testing and Maintenance (2-4-3) Proper and safe use of electrical power equipment test devices and the interpretation of test results. Includes protective relay testing and calibration, direct current (DC) testing, insulation power factor testing, and medium voltage switchgear.

EMSP

EMSP 1261 Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (0-0-2) 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.

EMSP 1355 Trauma Management (2-3-3) Knowledge and skills in the assessment and management of patients with traumatic injuries.

EMSP 1356 Patient Assessment and Airway Management (2-4-3) Knowledge and skills required to perform patient assessment, airway management, and artificial ventilation.

EMSP 1438 Introduction to Advanced Practice (3-4-4) Fundamental elements associated with emergency medical services to include preparatory practices, pathophysiology, medication administration, and related topics.

EMSP 1501 Emergency Medical Technician (3-8-5) Preparation for certification as an Emergency Medical Technician (EMT).

EMSP 2143 Assessment Based Management (0-4-1) A summative experience covering comprehensive, assessment-based patient care management for the paramedic level.

EMSP 2161 Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (0-0-1) 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.

EMSP 2167 Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (0-0-1) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EMSP 2168 Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (0-0-1) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EMSP 2169 Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (0-0-1) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EMSP 2205 EMS Operations (1-3-2) Knowledge and skills to safely manage multi-casualty incidents and rescue situations; utilize air medical resources; identify hazardous materials and other specialized incidents.

EMSP 2206 Emergency Pharmacology (2-1-2) A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages.

EMSP 2237 Emergency Procedures (0-6-2) Application of emergency medical procedures. This course was designed to be repeated multiple times to improve student proficiency.

EMSP 2262 Clinical - Emergency Medical Technology/Technician (emt Paramedic) (0-0-2) 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.

EMSP 2330 Special Populations (2-3-3) Knowledge and skills necessary to assess and manage ill or injured patients in diverse populations to include neonatology, pediatrics, geriatrics, and other related topics.

EMSP 2434 Medical Emergencies (3-4-4) 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.

EMSP 2444 Cardiology (3-3-4) Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation.

ENER

ENER 2325 SCADA and Networking (2-4-3) Topics in Supervisory Control and Data Acquisition (SCADA) systems, Industrial Ethernet communications systems as they apply to industry. Prerequisite CETT 1303, CETT 1305

ENTC

ENTC 1349 Reliability and Maintainability (2-4-3) Equipment reliability and maintainability. Includes development and assessment of maintenance programs.

ENTC 2310 Machine Design (1-5-3) Design considerations for machinery. Includes selection of mechanical components and machine construction principles. Prerequisite MCHN 1326, MCHN 1371

EPCT

EPCT 1205 Environmental Regulations Overview (1-4-2) An introduction to the history of the environmental movement, including basic requirements for compliance with the environmental regulations.

EPCT 1243 Treatment, Remediation, and Disposal Techniques (1-4-2) A study of the skills required in treatment, remediation, and disposal processes of solid waste, hazardous materials, and hazardous waste. Emphasizes the technologies applicable in the field.

EPCT 1301 Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics (2-3-3) Minimum certification requirements in the Code of Federal Regulations (CFR) for a hazardous waste site worker as found in 29 CFR-1910.120 and 40 CFR-264.16.

EPCT 1307 Introduction to Environmental Safety and Health (2-3-3) A historic overview of environmental safety and health. Emphasis on the use of occupational safety and health codes.

EPCT 1344 Environmental Sampling and Analysis (2-3-3) Sampling protocol, procedures, quality control, preservation technology, and field analysis. Emphasis on analysis commonly performed by the field technician.

EPCT 2331 Industrial Hygiene Applications (2-3-3) A study of the industrial environment and its relation to worker's health. This course provides training in anticipation, recognition, evaluation, and controlling health hazards-- particularly chemical, physical, biological, and ergonomic factors existing in the workplace and having injurious effects on workers. The course also introduces training in instrumentation used in monitoring and measuring health hazards in the workplace and covers current issues in industrial hygiene.

EPCT 2337 Site Assessment (2-3-3) Research techniques required to perform site assessment. Emphasis on the American Society of Testing Materials (ASTM) and Comprehensive Environmental Response Compensation Liability Act (CERCLA) Super Fund Standards.

GRPH

GRPH 1359 Vector Graphics for Production (2-4-3) A study and use of vector graphics for production.

HART

HART 1301 Basic Electricity for HVAC (2-4-3) Principles of electricity as required by HVAC, including proper use of test equipment, electrical circuits, and component theory and operation.

HART 1303 Air Conditioning Control Principles (2-4-3) 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. Prerequisite HART 1301 (Prerequisite or Corequisite)

HART 1307 Refrigeration Principles (2-4-3) An introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, refrigerant handling, refrigeration components, and safety.

HART 1310 HVAC Shop Practices and Tools (2-4-3) Tools and instruments used in the HVAC industry. Includes proper application, use and care of these tools, and tubing and piping practices.

HART 1341 Residential Air Conditioning (2-4-3) A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems. Prerequisite HART 1301, HART 1307

HART 1345 Gas and Electric Heating (2-4-3) Study of the procedures and principles used in servicing heating systems including gas fired furnaces and electric heating systems. Prerequisite HART 1301 (Prerequisite or Corequisite)

HART 1356 EPA Recovery Certification Preparation (2-2-3) Certification training for HVAC refrigerant recovery, recycle, and reclaim. Instruction will provide a review of EPA guidelines for refrigerant recovery and recycling during the installation, service, and repair of all HVAC and refrigeration systems.

HART 2331 Advanced Electricity for HVAC (2-4-3) 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. Prerequisite HART 1303

HART 2334 Advanced Air Conditioning Controls (2-4-3) Theory and application of electrical control devices, electromechanical controls, and/or pneumatic controls. Prerequisite HART 2336

HART 2336 Air Conditioning Troubleshooting (2-4-3) 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. Prerequisite HART 1303, HART 1345, HART 1341 (Prerequisite or Corequisite)

HART 2338 Air Conditioning Installation and Startup (2-4-3) A study of air conditioning system installation, refrigerant piping, condensate disposal, and air cleaning equipment with emphasis on startup and performance testing.

HART 2341 Commercial Air Conditioning (2-4-3) A study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less. Prerequisite HART 1303, HART 1341

HART 2342 Commercial Refrigeration (2-4-3) Theory and practical application in the maintenance of commercial refrigeration; medium, and low temperature applications and ice machines. Prerequisite HART 1307

HART 2343 Industrial Air Conditioning (2-4-3) A study of components, accessories, applications, and installation of air conditioning systems above 25 tons capacity. Prerequisite HART 2336

HART 2345 Residential Air Conditioning Systems Design (2-4-3) 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. Prerequisite HART 2336

HART 2349 Heat Pumps (2-2-3) A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems. Prerequisite HART 1303, HART 1341 (Prerequisite or Corequisite)

HART 2350 HVAC Zone Controls (2-4-3) Theory and application of HVAC residential Zone control devices, electromechanical controls, and/or pneumatic controls. Prerequisite HART 2336

HART 2357 Specialized Commercial Refrigeration (2-4-3) An advanced course covering the components, accessories, and service of specialized refrigeration units, such as ice machines, soft-serve machines, cryogenics, and cascade systems. Prerequisite HART 2336

HART 2358 Testing, Adjusting, and Balancing HVAC Systems (2-4-3) 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. Prerequisite HART 2331

HEMR

HEMR 1304 Natural Gas Compression (2-4-3) An introductory course in the principles of the operation of gas compressors and natural gas engines.

HEMR 1401 Tracks and Undercarriages (2-4-4) Concepts in operation and maintenance of final drive track systems and undercarriages used on track and wheel type equipment.

HITT

HITT 1204 IT for Health Professions (1-4-2) For students without an IT background, provides a basic overview of computer architecture, data organization, representation and structure, structure of programming, networking, and data communication. Includes basic terminology of computing.

HITT 1253 Legal and Ethical Aspects of Health Information (1-4-2) Concepts of privacy, security, confidentiality, ethics, healthcare legislation, and regulations relating to the maintenance and use of health information.

HITT 1301 Health Data Content and Structure (2-4-3) 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.

HITT 1305 Medical Terminology I (2-2-3) Study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties.

HITT 1311 Health Information Systems (2-4-3) Introduction to health IT standards, health-related data structures, software applications, and enterprise architecture in health care and public health.

HITT 1341 Coding and Classification Systems (2-4-3) Fundamentals of coding rules, conventions, and guidelines using clinical classification systems.

HITT 1342 Ambulatory Coding (2-4-3) Fundamentals of ambulatory coding rules, conventions, and guidelines.

HITT 1345 Health Care Delivery Systems (3-1-3) Examination of delivery systems including organization, financing, accreditation, licensure, and regulatory agencies.

HITT 2249 RHIT Competency Review (1-2-2) Review Health Information Technology (HIT) competencies, skills, and knowledge.

HITT 2335 Coding and Reimbursement Methodologies (2-4-3) Advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement. Prerequisite HITT 1341

HITT 2339 Health Information Organization and Supervision (2-4-3) Principles of organization and supervision of human, financial, and physical resources.

HITT 2346 Advanced Medical Coding (2-4-3) 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. Prerequisite HITT 1341, HITT 1342

HITT 2366 Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician (0-0-3) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

HITT 2443 Quality Assessment and Performance Improvement (2-6-4) 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, and approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems. Approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems.

HPRS

HPRS 1206 Essentials of Medical Terminology (2-0-2) A study of medical terminology, word origin, structure, and application.

HRPO

HRPO 2301 Human Resources Management (2-2-3) Behavioral and legal approaches to the management of human resources in organizations.

HYDR

HYDR 1301 Rigging and Conveying Systems (2-4-3) Introduction to directing and moving heavy objects, selecting the appropriate rigging equipment, in conjunction with the suitable hardware and lifting devices with an emphasis on inspection, care, and maintenance of rigging equipment.

HYDR 1305 Basic Hydraulics (2-4-3) Fundamentals of hydraulics including types of hydraulic pumps, cylinders, valves, motors, and related systems. Introduction to hydraulic schematic symbols as related to components.

IFWA

IFWA 1205 Food Service Equipment and Planning (1-3-2) A study of various types of food service equipment and the planning of equipment layout for product flow and efficient operation.

IFWA 1217 Food Production and Planning (1-2-2) Skill development in basic mathematical operations and study of their applications in the food service industry. Topics include percentages, weights and measures, ratio and proportion, weights and measures conversions, determination of portion costs for menu items and complete menus, portion control, and the increase and decrease of standard recipes.

IFWA 1218 Nutrition for the Food Service Professional (2-0-2) An introduction to nutrition including nutrients, digestion and metabolism, menu planning, recipe modification, dietary guidelines and restrictions, diet and disease, and healthy cooking techniques.

IFWA 1401 Food Preparation I (2-8-4) A study of the fundamental principles of food preparation and cookery. Emphasis on basic techniques of preparing soups, salads, dressings, sandwiches, beverages, vegetables, and cheese and egg cookery. Prerequisite CHEF 1205, IFWA 1205, IFWA 1217

IFWA 1427 Food Preparation II (2-8-4) Continuation of the fundamental principles of food preparation. Emphasis on preparation of food items such as meats, poultry and fish. Prerequisite IFWA 1401

IMED

IMED 1316 Web Design I (2-4-3) Instruction in web design and related graphic design issues including mark-up languages, web sites, and browsers. Prerequisite ARTC 1302 (Prerequisite or Corequisite) or ITSE 1311 (Prerequisite or Corequisite) or IMED 1371 (Prerequisite or Corequisite)

IMED 1341 Interface Design (2-4-3) Interface design process including selecting interfaces that are relative to a project's content and delivery system. Emphasis on aesthetic issues such as iconography, screen composition, colors, and typography.

IMED 1345 Interactive Digital Media I (2-4-3) Exploration of the use of graphics and sound to create interactive digital media applications and/or animations using industry standard authoring software. Prerequisite IMED 1341

IMED 1371 Ui/Ux Design (2-4-3) Application of user experience and user interface design within the context of web design. Instruction in user interface design with an emphasis on the visual, interactive elements of a website including buttons, icons, spacing, typography, color schemes, and responsive design.

IMED 2309 Internet Commerce (2-4-3) An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Prerequisite IMED 2313, ITSE 1306, ITSE 2313 (Prerequisite or Corequisite)

IMED 2311 Portfolio Development (2-4-3) Preparation and enhancement of portfolio to meet professional standards, development of presentation skills, and improvement of job-seeking techniques. Prerequisite ITSE 2313, IMED 2309, IMED 2315

IMED 2313 Project Analysis and Design (2-4-3) Application of the planning and production processes for digital media projects. Emphasis on copyright and other legal issues, content design and production management.

IMED 2315 Web Design II (2-4-3) A study of mark-up language and 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. Prerequisite IMED 1316, IMED 2313 (Prerequisite or Corequisite)

IMED 2345 Interactive Digital Media II (2-4-3) Instruction in the use of scripting languages to create interactive digital media applications. Prerequisite ITSE 2302

IMED 2349 Internet Server Management (2-4-3) Web server software installation, configuration, and maintenance. Includes scripting and website optimization. Prerequisite IMED 1316

IMED 2351 Digital Media Programming (2-4-3) Advanced topics in digital media programming including custom scripts for data tracking. Emphasis on developing digital media programs customized to the client's needs. Prerequisite IMED 2345, ITSE 1306

IMED 2388 Internship - Digital Communication and Media/ Multimedia (0-0-3) 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 ITSE 2313, IMED 2309, IMED 2315

INEW

INEW 2332 Comprehensive Software Project: Coding, Testing, and Implementation (2-2-3) A comprehensive application of skills learned in previous semesters in a simulated workplace. Includes coding, testing, maintenance, and documentation of a complete software and/or hardware solution. This course may be used as a capstone course for a certificate or degree.

INMT

INMT 1305 Introduction to Industrial Maintenance (2-4-3) Basic mechanical skills and repair techniques common to most fields of industrial maintenance. Topics include precision measuring instruments and general safety rules common in industry, including lock-out/tag-out.

INMT 1317 Industrial Automation (2-4-3) Applications of industrial automation systems including identification of system requirements, equipment integration, motors, controllers, and sensors. Coverage of set-up, maintenance, and testing of the automated system. Prerequisite CETT 1303, CETT 1305

INMT 1355 Industrial Power Plant Systems (2-4-3) Study the principles of operation and maintenance of industrial power plants. Emphasis placed on component replacement, tune-up, and field adjustments of engine systems. Prerequisite INMT 1305

INMT 2301 Machinery Installation (2-4-3) Students utilize skills acquired in previous studies. Machinery foundation, locations, installation, and alignment activities are practiced and tested. Emphasis is on the various methods of shaft alignment including laser shaft alignment. Prerequisite INMT 1305

INMT 2303 Pumps, Compressors & Mechanical Drives (2-4-3) A study of the theory and operations of various types of pumps and compressors. Topics include mechanical power transmission systems including gears, v-belts, and chain drives. Prerequisite INMT 1305

INMT 2345 Industrial Troubleshooting (2-4-3) An advanced study of the techniques used in troubleshooting various types of industrial equipment to include mechanical, electrical, hydraulic, and pneumatic systems and their control devices. Emphasis will be placed on the use of schematics and diagrams in conjunction with proper troubleshooting procedures. Prerequisite ELPT 1341

INTC

INTC 1305 Introduction to Instrumentation (2-4-3) A survey of the instrumentation field and the professional requirements of the instrumentation technician. Prerequisite CETT 1303 (Prerequisite or Corequisite)

INTC 1341 Principles of Automatic Control (2-4-3) Basic measurements, automatic control systems and design, closed loop systems, controllers, feedback, control modes, and control configurations.

INTC 1343 Application of Industrial Automatic Controls (2-4-3) Automatic process control including measuring devices, analog and digital instrumentation, signal transmitters, recorders, alarms, controllers, control valves, and process and instrument diagrams. Includes connection and troubleshooting of loops.

INTC 1348 Analytical Instrumentation (1-5-3) Analytical instruments emphasizing utilization in process applications. Includes, but not limited to, chromatography, pH, conductivity, and spectrophotometric instruments. Prerequisite INTC 1341

INTC 1350 Digital Measurement and Controls (1-5-3) Basic measurement control instrumentation. Includes movement of digital data through common systems employing parallel and serial transfers. Prerequisite RBTC 1301

INTC 1355 Unit Operations (2-4-3) Automatic control requirements of industrial processes. Includes control systems, control loop tuning, and analysis. Prerequisite INTC 1341

INTC 1356 Instrumentation Calibration (2-4-3) Techniques for configuring and calibrating transmitters, controllers, recorders, valves, and valve positioners. Prerequisite INTC 1355

INTC 2310 Principles of Industrial Measurements II (1-5-3) Additional principles of measurement. Includes devices used to measure process variables and basic control functions. Prerequisite INTC 1355

INTC 2330 Instrumentation Systems Troubleshooting (2-4-3) Techniques for troubleshooting instrumentation systems in a process environment. Includes troubleshooting upsets in processes. Prerequisite INTC 1343

INTC 2333 Instrumentation Systems Installation (1-5-3) Synthesis, application, and integration of instrument installation components. Includes a comprehensive final project. Prerequisite INTC 1355

INTC 2336 Distributed Control and Programmable Logic (1-5-3) An overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. Functions of digital systems in a process control environment. Prerequisite RBTC 1301 (Prerequisite or Corequisite)

INTC 2339 Instrument and Control Review (2-4-3) An overview of instrument and control technology in preparation for industry employment and national testing. Prerequisite INTC 1343

INTC 2350 Fieldbus Process Control Systems (1-5-3) A comprehensive view of fieldbus systems using theory, applications, and hands-on experiences. Prerequisite INTC 2333

ITCC

ITCC 1314 CCNA 1: Introduction to Networks (2-4-3) 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.

ITCC 1344 CCNA 2: Switching, Routing, and Wireless Essentials (2-4-3) Describes the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts; provides an in-depth understanding of how routers and switches operate and are implemented in the LAN environment. Prerequisite ITCC 1314 (Prerequisite or Corequisite) OSA may be exempt from requisite. Consult with dept.

ITCC 2320 CCNA 3: Enterprise Networking, Security , and Automation (2-4-3) Describes the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. Emphasizes network security concepts and introduces network virtualization and automation. Prerequisite ITCC 1344 (Prerequisite or Corequisite) OSA may be exempt from requisite. Consult with dept.

ITCC 2343 Network Security (2-4-3) Overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies; products and solutions; firewall and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls.

ITDF

ITDF 1300 Introduction to Digital Forensics (2-4-3) A study of the application of digital forensic technology to collect, analyze, document, and present information while maintaining a documented chain of custody. Overview of ethics, crime, and other legal guidelines/regulations/laws. Includes overview of tools used for forensic analysis of digital devices in investigations.

ITDF 2420 Digital Forensics Collection (2-4-4) A study of acquiring digital evidence from devices, networks and logs while preserving the evidentiary chain. Includes the legal aspects of the search and seizure of computers and related equipment/information.

ITDF 2425 Digital Forensics Tools (2-4-4) Skills-based course in the applications of forensic analysis software and hardware tools.

ITDF 2430 Digital Forensics Analysis (2-4-4) Digital forensic analysis, report preparation, and evidence presentation. Emphasizes balancing legal and technical aspects of cases where digital forensics is employed.

ITDF 2435 Comprehensive Digital Forensics Project (2-4-4) Comprehensive application of skills learned in previous digital forensics courses in a simulated crime scene or workplace investigation. Includes collection, analysis, and presentation of digital data and evidence in a problem-based case study format.

ITNW

ITNW 1308 Implementing and Supporting Client Operating Systems (2-4-3) The fundamentals of managing and configuring network clients.

ITNW 1309 Fundamentals of Cloud Computing (2-4-3) Introduction to Cloud computing from a business and technical perspective, including Cloud concepts, services, architecture, system integration, connectivity, data center migration, administration, security, compliance and technical support. Coverage includes preparation for industry certifications. Topics may adapt to changes in industry practices.

ITNW 1313 Computer Virtualization (2-4-3) Implement and support virtualization of clients of servers in a networked computing environment. This course explores installation, configuration, and management of computer virtualization workstation and servers.

ITNW 1325 Fundamentals of Networking Technologies (2-4-3) Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software.

ITNW 1345 Implementing Network Directory Services (2-4-3) In-depth coverage of the skills necessary to install, configure, and administer Network Directory service.

ITNW 1354 Implementing and Supporting Servers (2-4-3) Implement, administer, and troubleshoot information systems that incorporate servers in a networked computing environment.

ITNW 1358 Network+ (2-4-3) Assists individuals in preparing for the Computing Technology Industry Association (CompTIA) Network+ certification exam and career as a network professional.

ITNW 1436 Cloud Deployment & Infrastructure Management (2-4-4) Focus on Cloud infrastructure, deployment, security models, and key considerations in migrating to Cloud computing. Includes the technologies and processes required to build on-premise and Cloud environments, including computation, storage, networking, virtualization, business continuity, security, and management.

ITNW 2312 Routers (2-4-3) Router configuration for local area networks and wide area networks. Includes Internet Protocol (IP) addressing techniques and intermediate routing protocols. Prerequisite ITNW 1325

ITNW 2321 Networking with TCP/IP (2-4-3) Set up, configure, use, and support Transmission Control Protocol/Internet Protocol (TCP/IP) on networking operating systems.

ITNW 2350 Enterprise Network (2-4-3) A case study in Convergence Technologies requiring a network engineer to study a problem and design a network solution for an enterprise network. Prerequisite ITSY 2301

ITNW 2352 Administering SQL Server (2-4-3) Administering SQL Server is a skills development course in the installation, configuration, administration, and troubleshooting of SQL Servers client/server database management system version.

ITNW 2354 Internet/Intranet Server (2-4-3) Advanced concepts in the designing, installing, and administration of an Internet/Intranet server. Prerequisite ITNW 1345, ITSC 1316

ITNW 2355 Server Virtualization (2-4-3) An in-depth study of the installation, configuration, management and troubleshooting of a virtualized server environment. Prerequisite ITNW 1345 or ITNW 1354

ITNW 2380 Cooperative Education - Computer Systems Networking and Telecommunications (1-0-3) 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.

ITNW 2427 Advanced Cloud Concepts (2-4-4) Focus on enterprise Cloud architecture, with advanced topics including multi-Cloud platforms inclusive of computing, networking, storage, monitoring and database. Prerequisite ITNW 1436

ITNW 2429 Application Development for The Cloud (2-4-4) A practical study of Cloud computing architecture and service. Includes designing and developing Cloud based applications, web services, micro services, and APIs; programming for the Cloud using API calls; and building and deploying server-side applications for the Cloud. Prerequisite ITNW 1436

ITSC

ITSC 1309 Integrated Software Applications I (2-4-3) Introduction to business productivity software suites using word processing, spreadsheets, databases, and/or presentation software.

ITSC 1316 Linux Installation and Configuration (2-4-3) 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. Prerequisite ITNW 1358 or ITCC 1314

ITSC 1325 Personal Computer Hardware (2-4-3) Current personal computer hardware including assembly, upgrading, setup, configuration, and troubleshooting.

ITSC 2370 Final Project-Systems Administration (2-4-3) Students will design and implement a systems administration plan for specified parameters utilizing knowledge and skill sets learned in the course of instruction. The students will be given a set of desired administrative outcomes and will implement current or impending technologies to obtain the desired administrative outcomes.

ITSC 2386 Internship - Computer and Information Sciences, General (0-0-3) 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.

ITSC 2425 Advanced Linux (2-4-4) Provides instruction in advance open-source Linux operating system. Develops directory services for clients, support users remotely, and install and configure network services. Prerequisite ITSC 1316

ITSE

ITSE 1302 Computer Programming (2-4-3) Introduction to computer programming including design, development, testing, implementation, and documentation.

ITSE 1303 Introduction to MySQL (2-4-3) Introduction to fundamentals of SQL and relational databases.

ITSE 1306 PHP Programming (2-4-3) 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. Prerequisite ITSE 1303 or ITSE 2309, ITSE 2302

ITSE 1307 Introduction to C++ Programming (2-4-3) Introduction to computer programming using C++. Emphasis on the fundamentals of object-oriented design with development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files.

ITSE 1311 Beginning Web Programming (2-4-3) Skills development in web programming including mark-up and scripting languages.

ITSE 1329 Programming Logic and Design (2-4-3) Problem-solving applying structured techniques and representation of algorithms using design tools. Includes testing, evaluation, and documentation.

ITSE 1330 Introduction to C# Programming (2-4-3) A study of C# syntax including data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling.

ITSE 1333 Mobile Applications Development (2-4-3) An overview of different mobile platforms and their development environments. Prerequisite ITSE 1330

ITSE 1350 System Analysis and Design (2-4-3) Introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools.

ITSE 2302 Intermediate Web Programming (2-4-3) Server-side and client-side techniques for Web development. Prerequisite ITSE 1311

ITSE 2309 Database Programming (2-4-3) Database development using database programming techniques emphasizing database structures, modeling, and database access.

ITSE 2310 IOS Application Programming (2-4-3) Course explores developing applications for iOS devices. Will include Objective-C programming, use of the iOS SDK environment, and current programming issues in the iOS environment.

ITSE 2313 Web Authoring (2-4-3) Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. Prerequisite IMED 2313, ITSE 1306

ITSE 2317 Java Programming (2-4-3) Introduction to object-oriented Java programming including the fundamental syntax and semantics of Java for applications and web applets.

ITSE 2331 Advanced C++ Programming (2-4-3) Further application of C++ programming techniques including file access, abstract data structures, class inheritance, and other advanced techniques. Prerequisite ITSE 1307

ITSE 2333 Implementing a Database on Microsoft SQL Server (2-4-3) Skills development in the implementation of a database solution using Microsoft SQL Server client/server database management system. Prerequisite ITSE 2309

ITSE 2353 Advanced C# Programming (2-4-3) Continuation of C# programming using advanced features of the .NET Framework Class Library. Prerequisite ITSE 1330, ITSE 2309

ITSE 2359 Advanced Computer Programming (2-4-3) Advanced programming techniques including file access methods, data structures, modular programming, program testing and documentation. Prerequisite ITSE 2353, ITSE 2309, ITSE 1332

ITSE 2380 Cooperative Education - Computer Programming/ Programmer, General (1-0-3) Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, the employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary.

ITSW

ITSW 1307 Introduction to Database (2-4-3) Introduction to database theory and the practical applications of a database.

ITSW 1310 Introduction to Presentation Graphics Software (2-4-3) Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development.

ITSY

ITSY 1342 Information Technology Security (2-4-3) Instruction in security for network hardware, software, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses. Prerequisite ITNW 1345 or ITNW 1354

ITSY 1374 Secure Linux Administration (2-4-3) Configure and manage security on Linux systems, to include Linux installation, basic administration, utilities and commands, upgrading system, networking, and application installation; Management and securing network services and hardening of the system OS to mitigate security risks; Introduction to common Linux-based open source security tools used to assess security vulnerabilities, analyze malware, and conduct penetration testing. Prerequisite ITNW 1354

ITSY 1375 Security Scripting (2-4-3) Utilize scripting languages to create scripts that could be used for security assessments, data analysis(data manipulation; textual manipulation), and automating administrative security tasks.

ITSY 2301 Firewalls and Network Security (2-4-3) Identify elements of firewall design, types of security threats and responses to security attacks. Use Best Practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities. Prerequisite ITNW 1325 or ITNW 2312

ITSY 2330 Intrusion Detection (2-4-3) Identify elements of firewall design, types of security threats and responses to security attacks. Use Best Practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities. Prerequisite ITNW 2321

ITSY 2343 Computer System Forensics (2-4-3) In-depth study of system forensics including methodologies used for analysis of computer security breaches. Gather and evaluate evidence to perform postmortem analysis of a security breach. Prerequisite ITDF 1300

ITSY 2359 Security Assessment and Auditing (2-4-3) Capstone experience for the security curriculum. Synthesizes technical material covered in prior courses to monitor, audit, analyze, and revise computer and network security systems to ensure appropriate levels of protection are in place to assure regulatory compliance. Prerequisite ITSY 1342, ITSY 2301

LNWK

LNWK 1241 Distribution Operations (1-3-2) A study of the theoretical and practical operation of electric utility distribution systems. Topics include customer service voltages, capacitors, and coordination of protection equipment. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370

LNWK 1301 Orientation and Line Skill Fundamentals (2-4-3) Examination of utility company operations. Topics include company structure, safety and distribution standards handbook, lineman's tools, vocabulary, and work procedures. Discussion of basic electrical systems including the history of power generation and distribution with emphasis on generating plants and substations.

LNWK 1311 Climbing Skills (2-4-3) Theory and application of pole climbing. Includes safety, climbing techniques, tool inspection, poles inspection, personal protective equipment, and fall protection.

LNWK 1331 Transformer Connections (2-4-3) An introduction to basic transformer connections and theory (including basic alternating current (AC) theory) and their direct application to single phase and three phase transformers. Students will study and practice basic transformer connections and fundamentals. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370, LNWK 2321, CVOP 1301, LNWK 1241

LNWK 1370 Rigging for Electrical Lineworker (2-4-3) Introduction to rigging and hoisting in the line industry. Includes selecting proper rigging equipment; rope knots and splices; slings and hitches; signaling.

LNWK 1391 Special Topics in Lineworker (2-3-3) 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. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370, LNWK 2321, CVOP 1301, LNWK 1241

LNWK 1470 Electrical Safety, Tools and Calculations (2-4-4) Introduction to electrical safety and use of tools; includes selection, use, and maintenance of tools; calculations used in line worker's Industry. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370

LNWK 2321 Live Line Safety (2-4-3) Study of cover-up procedures and safety requirements for work on energized electrical circuits. Includes use, care, and inspection of cover-up material, recognizing nominal voltages and energized parts, approach distances, and safety. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370

LNWK 2322 Distribution Line Construction (2-4-3) Study of electric distribution line construction. Includes reading staking sheets and framing specifications, tailboard discussions, pole framing and setting, installing conductors, transformers and other line equipment, and OSHA and NESC regulations. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370, LNWK 2321, CVOP 1301, LNWK 1241

LNWK 2324 Troubleshooting Distribution Systems (2-4-3) Study of power outages and voltage complaints on distribution systems. Includes lockout-tagout procedures, safety grounds, backfeed, induced voltage, causes of outages, and analyzing voltage complaints. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370, LNWK 2321, CVOP 1301, LNWK 1241, LNWK 1391, LNWK 1331, LNWK 2322

LNWK 2370 Transmission and Underground Utilities (2-3-3) This is an overview of underground and transmission components, structures, equipment, and safety that relates directly to the distribution of high voltage electricity in the Electrical Lineworker Industry. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370, LNWK 2321, CVOP 1301, LNWK 1241, LNWK 1391, LNWK 1331, LNWK 2322, LNWK 2324

LNWK 2371 Maintenance, Testing, and Reconducting For Lineworker (2-4-3) Proper and safe use of testing equipment for linemen industry and maintenance of test equipment and tools. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370, LNWK 2321, CVOP 1301, LNWK 1241, LNWK 1391, LNWK 1331, LNWK 2322, LNWK 2324

LNWK 2372 Work Procedures and Safety in Electrical Lineworker (2-3-3) dentification and utilization of electrical systems; including safety and work procedures. Emphasis on ropes, knots, straps, braiding and common hand signals used for directing cranes for lineman use. Prerequisite CVOP 1305, LNWK 1311, LNWK 1301, LNWK 1370

MCHN

MCHN 1300 Beginning Machine Shop (1-5-3) Fundamental machine shop safety, math, and measurement.

MCHN 1302 Print Reading for Machining Trades (2-4-3) A study of blueprints for machining trades with emphasis on machine drawings.

MCHN 1320 Precision Tools and Measurement (2-4-3) An introduction to the modern science of dimensional metrology. Emphasis on the identification, selection, and application of various types of precision instruments associated with the machining trade. Practice of basic layout and piece part measurements while using standard measuring tools.

MCHN 1326 Introduction to Computer-Aided Manufacturing (CAM) (2-4-3) A study of Computer-Aided Manufacturing (CAM) software which is used to develop applications for manufacturing. Emphasis on tool geometry, tool selection, and the tool library. Prerequisite MCHN 1371 or DFTG 1309

MCHN 1343 Machine Shop Mathematics (2-4-3) Designed to prepare the student with technical, applied mathematics that will be necessary in future machine shop-related courses.

MCHN 1371 Engineering Computer Graphics I (2-4-3) This course covers the fundamental concepts associated with engineering computer aided design graphics; CAD. Emphasis will be placed on both dimensional analysis and design for manufacturing ability to D3 models. 3D Modeling Software will be utilized.

MCHN 1438 Basic Machine Shop I (2-6-4) A course that introduces the student to machining fundamentals. The student begins by using basic machine tools including the lathe, milling machine, drill press, power saw, and bench grinder. Machine terminology, theory, math, part layout, and bench work using common measuring tools is included. Emphasis is placed on shop safety, housekeeping, and preventative maintenance. Prerequisite MCHN 1300

MCHN 1454 Intermediate Machining II (2-6-4) Development of job process plan to include operation of lathes, milling machines, drill presses, and power saws. Set-up, layout, and tool maintenance is included. Emphasis on shop safety and preventative maintenance. Prerequisite MCHN 1438

MCHN 2303 Fundamentals of Computer Numerical Controlled (CNC) Machine Controls (2-4-3) Programming and operation of Computer Numerical Controlled (CNC) machine shop equipment.

MCHN 2335 Advanced CNC Machining (1-5-3) The study of advanced CNC operation with an emphasis on programming and operations of machining and turning centers. Prerequisite MCHN 2303

MCHN 2338 Advanced Computer-Aided Manufacturing (CAM) (2-4-3) A study of advanced techniques in Computer-Aided Manufacturing (CAM). Prerequisite MCHN 1326

MCHN 2341 Advanced Machining I (1-5-3) A study of advanced lathe and milling operations. Emphasis on advanced cutting operations of the lathe and milling machines, including the use

of special tooling, bench assembly, and materials identification. Prerequisite MCHN 1454

MCHN 2344 Computerized Numerical Control Programming (2-4-3) An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines. Prerequisite MCHN 1302

MCHN 2471 Specialized Equipment and Processes (2-6-4) An advanced course that incorporates conventional and computer numerical control equipment. Design and fabricate fixtures. Use metrology equipment and reverse engineering. Manufacture a project that shows proficiency in a variety of machining equipment and processes. Prerequisite MCHN 1438

MDCA

MDCA 1302 Human Disease/Pathophysiology (2-4-3) A study of anatomy and physiology with emphasis on human pathophysiology, including etiology, prognosis, medical treatment, signs and symptoms of common diseases of all body systems.

MDCA 1313 Medical Terminology (2-3-3) A study and practical application of a medical vocabulary system. Includes structure, recognition, analysis, definition, spelling, pronunciation, and combination of medical terms from prefixes, suffixes, roots, and combining forms.

MECH

MECH 1370 Introduction to Mechatronics (2-4-3) Overview of mechatronics applications including controls, programming, electrical, and mechanical systems.

MECH 1371 Industry Digital Devices (2-4-3) A course interfacing digital devices using logic circuits, metering equipment and different numbering systems. Prerequisite CETT 1303

MECH 1372 Basic Programmable Logic Controllers (2-4-3) Basic course in programmable control systems with emphasis on basic program techniques to include hardware identification, basic ladder programming and PLC communications. Prerequisite CETT 1305 OSA may be exempt from requisite. Consult with dept.

MECH 1373 Motion Control (2-4-3) This course explores theoretical concepts in motor control. Emphasis in 3 phase across the line control, system design, protection control devices, wiring and troubleshooting. In-depth coverage of power and control voltages. Prerequisite CETT 1305

MECH 1471 Hydraulic and Pneumatic Systems (2-4-4) A course that focuses on Hydraulic and Pneumatic power technology to include valves, actuators, pumps, motors and gauges to communicate with control devices in order to operate the system using network devices.

MECH 2370 Industrial Process Controls (2-4-3) Introduction to key concepts in automatic control and instrumentation of process plants. Applying industrial protocols (e.g. fieldbus, ethernet, modbus, profinet, profibus) to change controller parameters and read data from the controller. Use smart transmitters to relay instrumentation and final control elements performance status. Prerequisite CETT 1305

MECH 2372 Essentials to Advance PLC (2-4-3) Advanced applications of programmable logic controllers as used in industrial environments including concepts of networking, data collection, and troubleshooting of PLCs. Prerequisite MECH 1372

MECH 2373 Industry 4.0 Project (2-4-3) A course that provides students the opportunity to apply the knowledge and skills in Industry 4.0. A project will be constructed to include programmable logic controller, industrial control devices and production control. Prerequisite MECH 2472, MECH 1373

MECH 2374 Robotics Communication (2-4-3) Principles of robotics to include hardware/software components, interfacing, programing and troubleshooting of the robotic system. Course instruct students to program a robot to perform automated task.

MECH 2375 Production Control (2-4-3) This course defines the ability to apply technology in the principles and techniques in the design, planning, hardware and software of Industrial Production Control Systems. Prerequisite CETT 1305

MECH 2378 Internship-Mechatronics Technology (0-0-3) 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.

MECH 2471 Industrial Control Devices (2-4-4) This course covers the principles of control devises used in industry. Topics include the design, development, and current applications of automated control devises systems including their configuration, operation, and control. Upon completion students will be able to wire and program different control devises including PLC's and variable frequency drives, monitoring relays, protection relays and other devices locally at the device and through communications protocols. Prerequisite MECH 1373

MECH 2472 Communication Protocols (2-4-4) An introductory course to communications protocols in order to address industrial needs for connecting devices as they apply to industry. Industrial and traditional communication working together with emerging technologies.

MRKG

MRKG 1301 Customer Relationship Management (2-2-3) General principles of customer relationship management including skills, knowledge, attitudes, and behaviors.

MRKG 2349 Advertising and Sales Promotion (3-0-3) Integrated marketing communications. Includes advertising principles and practices. Emphasizes multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints. Prerequisite ARTC 1302

OSHT

OSHT 1209 Physical Hazards Control (1-4-2) A study of the physical hazards in industry and the methods of workplace design and redesign to control these hazards. Emphasis on the regulation codes and standards associated with the control of physical hazards.

OSHT 1305 OSHA Regulations - Construction Industry (2-4-3) A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to the construction industry.

OSHT 1313 Accident Prevention, Inspection, & Investigation (2-3-3) Provides a basis for understanding the nature of occupational hazard recognition, accident prevention, loss reduction, inspection techniques, and accident investigation analysis.

OSHT 2209 Safety Program Management (1-4-2) Examine the major safety management issues that affect the workplace including safety awareness, loss control, regulatory issues, and human behavior modification.

OSHT 2320 Safety Training Presentation Techniques (2-4-3) Principles of developing and presenting effective industrial/business training. Emphasis on instructor qualifications and responsibilities, principles of teaching including use of teaching aids and presentation skills.

OSHT 2370 Safety and Health First Aid Certification (2-3-3) This course is designed to offer the student certification in standard First Aid and Cardio-Pulmonary Resuscitation (CPR) along with a full understanding of the principles of emergency care. The student will learn on-scene planning as well as actions necessary to deal with accidents and injuries in an industrial setting. The student will learn physiology of the human body and the principles behind pressure points and actions taken in splint application and body immobilization.

OSHT 2388 Internship - Occupational Safety and Health Technology/Technician (0-0-3) 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.

OSHT 2401 OSHA Regulations - General Industry (2-4-4) A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to general industry.

PFPB

PFPB 1306 Basic Blueprint Reading for Plumbers (2-4-3) Introduction to reading and interpreting working drawings. Includes symbols and abbreviations and the use of sketching techniques to create isometric and orthographic drawings of drain, waste, vent, hot and cold water, and gas piping components.

PFPB 1321 Plumbing Maintenance and Repair (2-4-3) Instruction in the practices and procedures employed by a plumber including public relations.

PFPB 1323 Plumbing Codes I (2-4-3) State and local plumbing codes and the application of potable water, waste water, and gas systems relating to residential and light commercial settings.

PFPB 1347 Backflow Prevention (2-4-3) Principles, practices, and regulations of backflow. Includes backpressure, public health, laws and responsibilities, mechanics and use of backflow devices, and equipment testing used in backflow devices.

PFPB 1682 Cooperative Education - Plumbing Technology/Plumber (1-0-6) 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.

PFPB 2308 Piping Standards and Materials (2-4-3) Identification, description, and application of piping standards and specifications. Includes identification and use of various metallic and non-metallic piping materials, identification and installation of valves, and material take-offs.

PFPB 2309 Residential Construction Plumbing I (2-4-3) Skill development in the procedures and techniques employed by a plumber in the rough-in and top-out stages of a new home or the remodeling of an older home.

PFPB 2336 Commercial Construction and Fixture Setting (2-4-3) Practices and procedures employed by a plumber in the common construction in a commercial building including drain, waste, and vent systems, water systems, and fixture installations.

PFPB 2343 Advanced Pipe Practices (2-4-3) Identification, installation, and testing of steam traps and steam trap station components; valve identification, application, and maintenance; identification, storage, and handling of in-line specialties; hydrostatic testing of process piping.

PFPB 2349 Field Measuring, Sketching, and Layout (2-4-3) Field dimensioning, measuring, sketching, and layout of future process piping and the use, care, and setup of transit and level.

PHTC

PHTC 1311 Fundamentals of Photography (2-4-3) An introduction to camera operation and image production, composition, flash usage, and use of exposure meters and filters. Prerequisite ARTC 1302 (Prerequisite or Corequisite)

POFI

POFI 1349 Spreadsheets (2-4-3) Skill development in concepts, procedures, and application of spreadsheets. This course is designed to be repeated multiple times to improve student proficiency.

POFI 2301 Word Processing (2-4-3) Word processing software focusing on business applications. This course is designed to be repeated multiple times to improve student proficiency.

POFT

POFT 1301 Business English (2-2-3) Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business.

POFT 2312 Business Correspondence & Communication (2-2-3) Development of writing and presentation skills to produce effective business communications.

POFT 2380 Cooperative Education - Administrative Assistant and Secretarial Science, General (1-0-3) 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.

PSTR

PSTR 1301 Fundamentals of Baking (2-4-3) 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. Prerequisite CHEF 1205, IFWA 1205, IFWA 1217

PSTR 2431 Advanced Pastry Shop (2-6-4) 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. Prerequisite PSTR 1301

PSYT

PSYT 1313 Psychology of Personal Adjustment (3-0-3) Overview of personal, social, and work adjustment skills.

PTAC

PTAC 1302 Introduction to Process Technology (2-2-3) An introduction overview of the processing industries.

PTAC 1308 Safety, Health, and Environment I (2-4-3) An overview of safety, health, and environmental issues in the performance of all job tasks.

PTAC 1332 Process Instrumentation I (2-4-3) Study of the instruments and control systems used in the process industry including terminology, process variables, symbology, control loops, and basic troubleshooting.

PTAC 1410 Process Technology I - Equipment (3-3-4) Instruction in the use of common process equipment. Prerequisite PTAC 1332

PTAC 1454 Industrial Processes (3-3-4) The study of the common types of industrial processes.

PTAC 2314 Principles of Quality (2-4-3) Study of the background and application of quality concepts. Topics include team skills, quality tools, statistics, economics and continuous improvement.

PTAC 2387 Internship - Process Technology/Technician (0-0-3) 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.

PTAC 2420 Process Technology II - Systems (2-6-4) A study of various process systems including related scientific principles. Prerequisite PTAC 1410 (Prerequisite or Corequisite)

PTAC 2438 Process Technology III - Operations (2-6-4) This course emphasizes activities associated with the hands-on operations of process equipment.

PTAC 2446 Process Troubleshooting (2-6-4) Instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics Include Application of Data Collection and Analysis, Cause-Effect Relationships, and Reasoning.

PTRT

PTRT 1401 Introduction to Petroleum Industry (4-0-4) An introduction to the various aspects of petroleum industry including equipment, systems, instrumentation, operations, and the various scientific principles. Addresses a variety of petroleum technologies: exploration, drilling, production, transportation, marketing, and chemical processing industries.

RBPT

RBPT 1370 Building Envelope Inspection (2-4-3) Outlines procedures for improving the comfort, durability and energy efficiency of residential homes shell or envelope. Emphasis on air leakage and sealing measures, insulation types, proper installation of doors and windows, moisture fundamentals, indoor pollutants, and health and safety issues encountered when making energy improvements.

RBPT 2325 Energy Rating Systems for Homes (2-4-3) Use of computer software and rating criteria to evaluate and score homes using residential energy rating systems. Emphasizes gathering data from building plans, manufacturers' specifications, and onsite testing.

RBPT 2329 Residential Verification and Rating (2-4-3) A summary of the skills needed to be an energy rater and a green rater for homes. Emphasizes onsite building testing, use of rating software and criteria, producing reports, and presenting recommendations to improve building performance scores.

RBPT 2359 Residential Building Performance Consulting (2-4-3) A summary of the skills needed to be a residential building performance specialist. Emphasizes onsite building testing, use of evaluation software and rating criteria, production of reports, and presentation of recommendations to improve residential building performance.

RBTC

RBTC 1301 Programmable Logic Controllers (1-5-3) A Study in Programmable Controllers. Topics Include Processor Units, Numbering Systems, Memory Organization, Relay Type Devices Timers, Counters, Data Manipulators, and Programming. Prerequisite ELPT 1341

RBTC 1309 Pneumatics (2-4-3) A study of principles of pneumatics, including formulas, functions, and circuits with hands-on experience in these industrial automated systems. Prerequisite HYDR 1305

RBTC 1341 Vision Systems (2-4-3) An overview of machine vision systems, including terminology and components. Topics include optics, sensors, lighting, image analysis, and user interfaces. Prerequisite RBTC 2339

RBTC 1343 Robotics (2-4-3) Principles and applications of robots. Includes installation, interfacing, programming, maintenance, and safety of robots and robotic cells. Prerequisite CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)

RBTC 1345 Robot Interfacing (2-4-3) A study of the basic principles of robot controllers, controller input/output, memory, and interfacing with computer integrated manufacturing. Prerequisite RBTC 2339, RBTC 1347, RBTC 1301

RBTC 1347 Electro-Mechanical Devices (2-4-3) A study of electro-mechanical devices found in robotic systems. Includes transformers, switches, and solid state relays. Prerequisite RBTC 1343

RBTC 1355 Sensors (2-4-3) Study of basic principles of industrial sensors for automated systems. Emphasis on the operation and application of position, rate, proximity, opto-electronics, ranging, and pressure switches. Prerequisite RBTC 2339, RBTC 1347

RBTC 1371 Industrial Motors and Drives (2-4-3) Choosing, installation and troubleshooting of 3-phase motors and variable speed drives ,with emphasis on wiring and controls of industrial motors. Prerequisite RBTC 1301, ELPT 1341

RBTC 2335 Numerical Controlled/Computer Numerical Control Programming (2-4-3) A study of the principles and concepts of numerical control through computer applications, specifically in the area of programming for the control of machine tools in CIM. Prerequisite RBTC 1345, RBTC 1355

RBTC 2339 Robot Programming and Diagnostics (2-4-3) Emphasis on the programming of industrial robots, the development of programming techniques, and the diagnosis of faults in systems. Prerequisite RBTC 1343

RBTC 2345 Robot Application, Set-up, and Testing (2-4-3) A capstone course that provides the student with laboratory experience in the installation, set-up, and testing of robotic cells. Topics include maintenance. Prerequisite RBTC 1345, RBTC 1355

RBTC 2347 Computer Integrated Manufacturing (2-4-3) The principles of computer integrated manufacturing, including case studies and implementation of process control techniques, CAD/CAM, operations, software, and networking for CIM systems. Prerequisite RBTC 1345, RBTC 1355

RBTC 2375 Human Machine Interface Programming and Interfacing (2-4-3) An overview of Human Machine Interface (HMI) devices and their use in industrial automation. Programming HMIs for use with automated systems. Prerequisite RBTC 1345, RBTC 1301

RNSG

RNSG 1210 Introduction to Community-Based Nursing (2-0-2) Overview of the delivery of nursing care in a variety of community-based settings to promote health; application of systematic problem-solving processes and critical thinking skills, focusing on the examination of concepts and theories relevant to community-based nursing; and development of judgment, skill, and professional values within a legal/ethical framework.

RNSG 1227 Transition to Professional Nursing (1-3-2) Content includes health promotion, expanded assessment, analysis of data, critical thinking skills and systematic problem solving process, pharmacology, interdisciplinary teamwork, communication, and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework throughout the lifespan. This course lends itself to either a blocked or integrated approach.

RNSG 1261 Clinical - Registered Nursing/Registered Nurse (0-0-2) 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.

RNSG 1300 Health Assessment Across the Lifespan (2-2-3) Development of skills and techniques required for a comprehensive nursing health assessment of patients across the lifespan. Includes assessment of patients' health promotion and maintenance, illness and injury prevention and restoration, and application of the nursing process within a legal/ethical framework. This course lends itself to either a blocked or integrated approach.

RNSG 1301 Pharmacology (2-2-3) Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of drug classifications. Content includes the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework. This course lends itself to either a blocked or integrated approach.

RNSG 1343 Complex Concepts of Adult Health (2-2-3) Integration of previous knowledge and skills related to common adult health needs into the continued 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 in the care of adult patients and families with complex medical-surgical health care needs associated with body systems. Emphasis on complex knowledge, judgments, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach.

RNSG 1412 Nursing Care of the Childbearing and Childrearing Family (3-2-4) Study of the concepts related to the provision of nursing care for childbearing and childrearing families. Application of systematic problem-solving processes and critical thinking skills, including a focus on the childbearing family during the perinatal periods and the childrearing family from birth to adolescence; and competency in knowledge, judgment, skill, and professional values within a legal/ethical framework. This course lends itself to a blocked approach.

RNSG 1463 Clinical - Registered Nursing/Registered Nurse (0-0-4) 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.

RNSG 2162 Clinical - Registered Nursing/Registered Nurse (0-0-1) 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.

RNSG 2213 Mental Health Nursing (1-3-2) Principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of patients and their families. This course lends itself to a blocked approach.

RNSG 2221 Professional Nursing: Leadership and Management (2-0-2) Exploration of leadership and management principles applicable to the roles of the professional nurse. Includes application of knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach.

RNSG 2230 Professional Nursing Review and Licensure Preparation (1-2-2) Review of concepts required for licensure examination and entry into the practice of professional nursing. Includes review of application process of National Council Licensure Examination for Registered Nurses (NCLEX-RN) test plan, assessment of knowledge deficits, and remediation. This course lends itself to either a blocked or integrated approach.

RNSG 2262 Clinical - Registered Nursing/Registered Nurse (0-0-2) 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.

RNSG 2432 Enhanced Concepts of Adult Health (3-2-4) Enhanced concepts and skills for developing professional competencies in complicated nursing care situations involving adult patients/families with multiple body system problems. Emphasizes critical thinking, clinical reasoning, and determining legal/ethical values for optimization of patient care in intermediate and acute care settings. This course lends itself to a blocked approach.

RSTO

RSTO 1304 Dining Room Service (1-7-3) Introduces the principles, concepts, and systems of professional table service. Topics include dining room organization, scheduling, and management of food service personnel. Prerequisite CHEF 1205, IFWA 1205, IFWA 1217

RSTO 1313 Hospitality Supervision (2-2-3) Fundamentals of recruiting, selection, and training of food service and hospitality personnel. Topics include job descriptions, schedules, work improvement, motivation, applicable personnel laws and regulations. Emphasis on leadership development.

RSTO 1380 Cooperative Education - Restaurant, Culinary, and Catering Management/Manager (1-0-3) 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.

RSTO 1680 Cooperative Education - Restaurant, Culinary, and Catering Management/Manager (1-0-6) 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.

RSTO 2505 Management of Food Production and Service (2-9-5) A study of quantity cookery and management problems pertaining to commercial and institutional food service, merchandising and variety in menu planning, and customer food preferences. Includes laboratory experiences in quantity food preparation and service. Prerequisite CHEF 1441, CHEF 1445, PSTR 2431, RSTO 1313 (Prerequisite or Corequisite)

SCIT

SCIT 1318 Applied Physics (2-4-3) Introduction to physics for industrial applications including vectors, motion, mechanics, simple machines, matter, heat, and thermodynamics.

SCIT 1407 Applied Human Anatomy and Physiology I (2-6-4) An applied systematic study of the structure and function of the human body. Includes anatomical terminology, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, and endocrine. Emphasis on homeostasis.

SCIT 1414 Applied General Chemistry I (3-3-4) Applications of general chemistry emphasizing industry-related laboratory skills and competencies including laboratory safety and report writing. Addresses supporting chemical theories including atomic and molecular structure, nomenclature, chemical reactivity, gas laws, acids and bases, solutions, and an overview of organic chemistry.

SOLR

SOLR 1371 Introduction to Solar and Alternative Energy Technologies (2-4-3) Introduction to Renewable Energy is an overview to the most common types of renewable energy with an emphasis on solar system types and applications. This course introduces solar system types, components, safety issues, and history.

SOLR 1372 Foundations of Solar Photovoltaic Power Generation (2-4-3) Solar electrical power generation using photovoltaic (PV) equipment. Includes calculation of power generation and demand requirements, installation process for solar system components, and strategies for optimizing system performance and reliability.

SOLR 2375 Solar System Design, Installation, Troubleshooting & Repair (2-4-3) Design considerations including site assessment and desired system operation, installation, commissioning, maintenance, operation, troubleshooting and repair, and decommissioning. Review of safety issues, personal protection equipment, and tools of the trade associated with installation, operation, maintenance, and troubleshooting and repair of solar systems.

SOLR 2376 Special Projects in Solar Energy Systems (2-4-3) This course will provide the student with opportunities for solar installations and hands-on experience. Photovoltaic Systems as well as Solar Thermal Systems will be addressed. Individual students will be given the responsibility of supervising the planning and installation of their own systems.

SOLR 2377 Codes for Alternative Energy, Efficiency & Conservation (2-4-3) Apply various building and energy codes to solar and other alternate energy system installations. Emphasis will be on safety features of the codes and how the installation methods affect installers, occupants as well as any emergency responders that may have contact with the system and the structure on which it is installed. Energy efficiency, energy conservation, and the concept of a whole structure approach will be covered.

SRGT

SRGT 1244 Technological Sciences for the Surgical Technologist (2-0-2) Specialized surgical modalities covered include endoscopy, microsurgery, therapeutic surgical energies, and other integrated science technologies.

SRGT 1405 Introduction to Surgical Technology (3-2-4) Orientation to surgical technology theory, surgical pharmacology and anesthesia, and patient care concepts.

SRGT 1409 Fundamentals of Perioperative Concepts and Techniques (3-2-4) In-depth coverage of aseptic technique principles and practices, infectious processes, wound healing and creation and maintenance of the sterile field.

SRGT 1441 Surgical Procedures I (3-3-4) Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN genitourinary, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care.

SRGT 1442 Surgical Procedures II (3-3-4) Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the thoracic, peripheral vascular, plastic/reconstructive , EENT, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care.

SRGT 1461 Clinical - Surgical Technology/Technologist (0-0-4) 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 SRGT 1460

SRGT 1491 Special Topics in Surgical/Operating Room TECHNICIAN (3-4-4) Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

SRGT 2462 Clinical - Surgical Technology/Technologist (0-0-4) 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 SRGT 1461

SRVY

SRVY 1341 Land Surveying (2-4-3) A study of the measurement and determination of boundaries, areas, shapes, location through traversing techniques. Instruction in a variety of adjustment methods using calculators and computers. Addresses methods of traversing and adjustment of errors according to prevailing professional standards. Prerequisite DFTG 1309 (Prerequisite or Corequisite)

TECM

TECM 1303 Technical Calculations (3-0-3) Specific mathematical calculations required by business, industry, and health occupations.

TECM 1349 Technical Math Applications (3-0-3) Trigonometry and geometry as used in a variety of technical settings. Includes the use of plane and solid geometry to solve areas and volumes encountered in industry.

VNSG

VNSG 1119 Leadership and Professional Development (1-0-1) Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education.

VNSG 1230 Maternal-Neonatal Nursing (2-0-2) A study of the biological, psychological, and sociological concepts applicable to basic needs of the family including childbearing and neonatal care. Utilization of the nursing process in the assessment and management of the childbearing family. Topics include physiological changes related to pregnancy, fetal development, and nursing care of the family during labor and delivery and the puerperium.

VNSG 1261 Clinical - Licensed Practical/Vocational Nurse Training (0-0-2) 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.

VNSG 1304 Foundations of Nursing (3-0-3) Introduction to the nursing profession including history, standards of practice, legal and ethical issues, and role of the vocational nurse. Topics include mental health, therapeutic communication, cultural and spiritual diversity, nursing process, and holistic awareness.

VNSG 1327 Essentials of Medication Administration (3-0-3) General principles of medication administration including determination of dosage, preparation, safe administration, and documentation of multiple forms of drugs. Instruction includes various systems of measurement.

VNSG 1329 Medical-Surgical Nursing I (3-0-3) Application of the nursing process to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings.

VNSG 1331 Pharmacology (3-0-3) Fundamentals of medications and their diagnostic, therapeutic, and curative effects. Includes nursing interventions utilizing the nursing process.

VNSG 1334 Pediatrics (3-0-3) Study of the care of the pediatric patient and family during health and disease. Emphasis on growth and developmental needs utilizing the nursing process.

VNSG 1402 Applied Nursing Skills I (3-3-4) Introduction to and application of primary nursing skills. Emphasis on utilization of the nursing process and related scientific principles.

VNSG 1432 Medical-Surgical Nursing II (3-2-4) Continuation of Medical-Surgical Nursing I with application of the nursing process to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings.

VNSG 1462 Clinical - Licensed Practical/Vocational Nurse Training (0-0-4) 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.

VNSG 2413 Applied Nursing Skills II (3-4-4) Application of nursing skills to meet complex patient needs utilizing the nursing process and related scientific principles.

VNSG 2463 Clinical - Licensed Practical/Vocational Nurse Training (0-0-4) 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.

WIND

WIND 1300 Introduction to Wind Energy (3-0-3) Introduction of wind technology, wind farm design, and wind power delivery.

WIND 1302 Wind Safety (2-2-3) Introduction to safety procedures and practices relating to turbine towers. Includes first aid training and CPR certifications.

WIND 2310 Wind Turbine Materials and Electro-Mechanical Equipment (2-2-3) Identification and analysis of the components and systems of wind turbine. Prerequisite WIND 1300, WIND 1302, CETT 1303

WIND 2455 Wind Turbine Troubleshooting and Repair (2-4-4) Operation, maintenance, troubleshooting, and repair of wind turbine electro-mechanical systems. Prerequisite CETT 1305, INMT 1317

WIND 2459 Wind Power Delivery System (3-2-4) Components, equipment, and infrastructure used in the production and transmission of electricity as related to wind turbine power. Prerequisite CETT 1305

WLDG

WLDG 1313 Introduction to Blueprint Reading for Welders (3-0-3) 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.

WLDG 1327 Welding Codes and Standards (2-4-3) An in-depth study of welding codes and their development in accordance with structural standards, welding processes, destructive and nondestructive test methods. Prerequisite WLDG 2413

WLDG 1337 Introduction to Welding Metallurgy (2-4-3) A study of ferrous and nonferrous metals from the ore to the finished product. Emphasis on metal alloys, heat treating, hard surfacing, welding techniques, forging, foundry processes, and mechanical properties of metal including hardness, machinability, and ductility. Prerequisite WLDG 2413

WLDG 1391 Special Topics in Welder/Welding Technologist (2-4-3) 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.

WLDG 1407 Introduction to Welding Using Multiple Processes (2-6-4) Basic welding techniques using some of the following processes: Oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and gas tungsten arc welding (GTAW).

WLDG 1417 Introduction to Layout and Fabrication (2-6-4) A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction. Prerequisite WLDG 1313 (Prerequisite or Corequisite)

WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW) (2-6-4) An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions.

WLDG 1434 Introduction to Gas Tungsten Arc (GTAW) Welding (2-6-4) Principles of gas tungsten arc welding (GTAW), including setup, GTAW equipment. Instruction in various positions and joint designs. Prerequisite WLDG 1407

WLDG 1435 Introduction to Pipe Welding (2-6-4) 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 weld positions 1G and 2G using various electrodes. Prerequisite WLDG 2435

WLDG 1457 Intermediate Shielded Metal Arc Welding (SMAW) (2-6-4) A study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions. Prerequisite WLDG 1428

WLDG 2406 Intermediate Pipe Welding (2-6-4) A comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) process. Welds will be done using various positions. Topics covered include electrode selection, equipment setup, and safe shop practices. Prerequisite WLDG 2435

WLDG 2413 Intermediate Welding Using Multiple Processes (2-6-4) 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 ,etal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW), or any other approved welding process. Prerequisite WLDG 1407

WLDG 2432 Welding Automation (2-6-4) Overview of automated welding and cutting applications. Special emphasis on safe use and operation of equipment Prerequisite WLDG 2413

WLDG 2435 Advanced Layout and Fabrication (2-6-4) An advanced course in layout and fabrication. Includes production and fabrication of layout, tools, and processes. Emphasis on application of fabrication and layout skills. Prerequisite WLDG 1417

WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW) (2-6-4) Advanced topics based on accepted welding codes. Training provided with various electrodes in shielded metal arc welding processes with open V-groove joints in all positions. Prerequisite WLDG 1457

WLDG 2453 Advanced Pipe Welding (2-6-4) 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. Prerequisite WLDG 2435


TSTC

CONTINUING EDUCATION

FAST Trac Airframe & Powerplant

The Texas State Technical College (TSTC) FAST Trac Airframe and Powerplant Program was developed to prepare veterans, active service personnel and civilian trainees to become well-rounded airframe and powerplant technicians with upward mobility potential. The curriculum is designed for experienced technicians and serves as a refresher program of study around FAA-required curriculum.

Students will focus on the study of Federal Aviation Administration subject matter in the general, airframe and powerplant curricula with a focus on building knowledge of new materials, techniques and physical skills. In addition, this program is designed to refresh the knowledge and skills not provided by civilian or military training. In addition, through hands-on labs, students will gain the experience that is required to obtain the civilian Aviation Maintenance Technician certificate.

The FAST Trac Airframe and Powerplant program is available at the Abilene campus.

The program runs four days per week, three hours per day over a 13-week period for a total of 160 hours of training.

Prerequisites: FAA authorization to take General and Airframe, General and Powerplant, or General, Airframe, and Powerplant written, oral, and practical examinations.

General	40 hours
Airframe:	60 hours
Powerplant:	60 hours
Total Program	160 hours

Total Cost: $4,500

General and Airframe
Study of Federal Aviation Administration subject matter in the general and airframe curricula with a focus on building knowledge of new materials, techniques and physical skills. This training is designed to provide the knowledge and skills not provided by civilian or military training and experience that are required to obtain the civilian Aviation Maintenance Technician certificate. Upon completion of this course, students will be able to:

- Weigh aircraft, perform weight and balance checks, and record data and information derived from weight and balance checks.
- Write descriptions of work performed, including aircraft discrepancies, corrective actions using typical aircraft maintenance records and required maintenance forms, records and inspection reports.
- Apply information contained in Federal Aviation Administration (FAA) and manufacturers' aircraft maintenance specifications, data sheets, manuals, publications, and related Federal Aviation regulations, airworthiness directives and advisory material.
- Analyze technical data and exercise mechanic privileges within the prescribed limitations.
- Perform precision measurement procedures; identify and select nondestructive testing methods; perform nondestructive testing and heat-treating procedures; identify and select aircraft hardware and materials; fabricate and install fluid lines and fittings; and inspect welds.
- Identify principles of basic aerodynamics; identify design principles of aircraft structures; and describe the theory of flight.
- Start, ground operate, move, service and secure aircraft; identify typical ground operation hazards and safety; inspect, identify, remove and treat aircraft corrosion.
- Calculate and measure electrical power, voltage, current, resistance and continuity; determine the relationship of voltage, current and resistance in electrical circuits; interpret aircraft electrical circuit diagrams, including solid-state devices and logic functions; inspect and service batteries.
- Repair and inspect aircraft electrical systems components; install, check and service airframe electrical wiring, controls, switches, indicators and protective devices; and inspect, check, troubleshoot, service and repair alternating- and direct-current electrical systems.
- Inspect, check, troubleshoot, service and repair heating, cooling, air conditioning, oxygen and pressurization systems and air cycle machines; airframe ice and rain control systems; smoke and carbon monoxide detection systems; and aircraft fire detection and extinguishing systems.
- Inspect, check, service, troubleshoot and repair aircraft fuel and management systems, fuel quantity-indicating systems, and hydraulic and pneumatic systems, and identify and select hydraulic fluids.
- Inspect, service and repair landing gear, retraction systems, shock struts, brakes, wheels, tires and steering systems, and service landing-gear systems.
- Select, install and remove special fasteners for metallic structures; inspect and repair sheet metal structures; install conventional rivets; form, lay out and bend sheet metal.
- Perform airframe conformity and airworthiness inspections.
- Rig fixed-wing aircraft; balance, rig and inspect movable primary and secondary flight control surfaces; and jack aircraft.

Prerequisites: FAA authorization to take General and Airframe written, oral and practical examinations.

Powerplant
Study of Federal Aviation Administration subject matter in the General and Powerplant curricula with a focus on building knowledge of new materials, techniques and physical skills. This training is designed to provide the knowledge and skills not provided by civilian or military training and experience that are required to obtain the civilian Aviation Maintenance Technician certificate. Upon completion of this course, students will be able to:

- Weigh aircraft, perform weight and balance checks, and record data and information derived from weight and balance checks.
- Write descriptions of work performed, including aircraft discrepancies, corrective actions using typical aircraft maintenance records and required maintenance forms, records and inspection reports.
- Apply information contained in Federal Aviation Administration (FAA) and manufacturers' aircraft maintenance specifications, data sheets, manuals, publications and related Federal Aviation

regulations, airworthiness directives and advisory material.
- Analyze technical data and exercise mechanic privileges within the prescribed limitations.
- Perform precision measurement procedures; identify and select nondestructive testing methods; perform nondestructive testing and heat-treating procedures; identify and select aircraft hardware and materials; fabricate and install fluid lines and fittings; and inspect welds.
- Identify principles of basic aerodynamics; identify design principles of aircraft structures; and describe the theory of flight.
- Start, ground operate, move, service and secure aircraft; identify typical ground operation hazards and safety; inspect, identify, remove and treat aircraft corrosion.
- Calculate and measure electrical power, voltage, current, resistance and continuity; determine the relationship of voltage, current and resistance in electrical circuits; interpret aircraft electrical circuit diagrams, including solid-state devices and logic functions; inspect and service batteries.
- Inspect, check, service and repair propeller synchronizing systems, ice control systems, fixed-pitch, constant-speed and feathering propellers and propeller governing systems, and repair aluminum alloy propeller blades.
- Identify the components of a reciprocating engine; inspect, troubleshoot, check, service and repair engine instrument systems; inspect, service and repair lubrication and exhaust systems.
- Maintain powerplant electrical systems and components; maintain powerplant ignition, starting and fire protection systems.
- Inspect, check, service, troubleshoot and repair engine fuel systems and components, fuel metering systems and components, reciprocating and turbine engine fuel metering systems, engine ice and rain control systems, heat exchangers, superchargers, turbine engine airflow and temperature control systems.
- Overhaul reciprocating engines; inspect, check, service and repair reciprocating engines and engine installations.
- Overhaul turbine engines; inspect, check and repair turbine engines.
- Perform powerplant conformity inspections and powerplant airworthiness inspections.

For more information, please contact:
Cindy Brunett
Project Manager
TSTC Workforce Training & Continuing Education
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325-734-3658

NCCER Carpentry Level 1

Carpenters make up the largest building trades occupation in the industry, and those with all-around skills are in high demand.

NCCER Core (73 hours)
The NCCER Core Curriculum is a prerequisite and foundation to all other Level 1 craft curriculum. Its modules cover topics such as basic safety, communication skills, and introduction to construction drawings. Completing this curriculum gives the trainee the basic skills needed to continue education in any craft area he or she chooses.

NCCER Basic Framing NCCER (48 hours)
Knowledge and skills required to erect wood frame structures, with emphasis on layout and construction of floors, walls and roofs. Includes safety procedures for using hand and power tools and structural materials.

Introduction to Carpentry NCCER (115 hours)
An introduction to the carpentry trade, including safety, tools, equipment, terminology and methods.

Safety Component (14 hours)
OSHA General Industry/Construction Safety and Health provides an introduction to specific training techniques involving the safe handling of blood- and air-borne pathogens, as well as general safety and security on the premises. Addresses the right to know and MSDS. Outlines occupational Safety and Health Administration (OSHA) regulations, inspections, penalties and compliance. The trainee will be able to:

- Demonstrate proficiency in handling critical and safety situations.
- Explain the importance of performing tasks safely and correctly.
- Maintain a situation in compliance with OSHA regulations.

Forklift Component (12 hours)

- Safety awareness, components identification, and field driving exercises.
- Analyzing hydraulic and electrical components and safety precautions.
- Discussion of preventing maintenance and basic repairs.
- Variety of exercises, lifting techniques and additional criteria evaluation such as surface conditions.
- Successfully demonstrate maneuvering exercises around simulated obstacle course.

Program Information

- Program total: 262 hours.
- Tuition: $4,500.
- Materials per student: $500.
- Minimum of six students to make the course.
- Books, tools and labs included.
- Certifications: OSHA 10, Forklift, CPR.

The NCCER Carpentry Level 1 program is available at the Harlingen campus.

NCCER Carpentry Level 1	262 hours
Total program	262 hours

Cost: $4,500

For more information, please contact:
Janie Barron
Project Manager
TSTC Workforce Training & Continuing Education
janie.barron@tstc.edu
956-364-4615

Certified Nurse Assistant (CNA)

The CNA program is designed to assure the successful certification of the CNA student, by preparing the student in providing optimal patient care. The TSTC Workforce Training & Continuing Education department collaborates with the Medical Industry to assure the program exceeds standards and expectations. CNA students are prepared with the knowledge, skills, abilities, professionalism, team work and ethics to succeed and grow. Students should be prepared for a course that is rigorous and fast paced. Students will complete 60 hours of lecture and skills practice (labs) and assignments, in addition students will complete 40 hours of clinicals at local facilities. After successful completion of the program students are registered to take the NNAAP Examination, which consists of a written and hands on skills test.

Supplies and Books
The program provides text book and student workbook and lab consumables. Students are required to purchase a few items: scrubs, stethoscope, second hand watch and appropriate shoes. Attendance is strictly monitored and students are required to make the commitment up front for

The CNA program is available at the Harlingen campus.

NURA 1091	CNA	100 hours
	Total program	100 hours

Cost: $1,600

For more information, please contact:
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Project Manager
TSTC Workforce Training & Continuing Education
janie.barron@tstc.edu
956-364-4615

Commercial Driver's License

Overview of the State of Texas Class A Commercial Driver's License written test. Includes preparation for mastery of the Commercial Driver's License written examination, general truck-driving skills with hands-on component, and instruction coordinated with the Department of Transportation. The Harlingen location is a third-party examining site.

- Describe basic inspection and testing techniques used for a pre-trip inspection.
- Describe basic air brakes inspection and test.
- Demonstrate proper shifting, double clutching, backing skills, coupling and uncoupling, and yard skills.
- Understand and pass commercial rules, general knowledge, combination and air brakes exams.
- Upon passing the course (70 percent), each student will receive a certificate of completion and obtain their Commercial Driver's License.

Prerequisites: Be at least 18 years of age, valid Class C Driver's License, obtain a driving record, pass a DOT physical and drug screen as required by the Department of Transportation.

The Commercial Driver's License program is available at the Fort Bend County, Harlingen and Marshall campuses.

CVOP 1013	Professional Truck Driver	160 hours
	Total program	160 hours

Cost:
Fort Bend County: $3,900
Harlingen: $4,500
Marshall: $3,900

For more information, please contact:
Linda L. Cavazos
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Bettye Cole
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TSTC Workforce Training & Continuing Education (Marshall)
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FAST Trac Dental Assistant

The purpose of this program is to familiarize students with all areas of administrative and clinical dental assisting, focusing on the responsibilities required to function as an assistant in a dental practice. This course covers the following key areas and topics:

- Introduction to the dental office, and history of dentistry and dental assisting.
- Legal aspects of dentistry, including policies and guidelines.
- Introductory oral anatomy, dental operatory and dental equipment.
- Introductory tooth structure, including primary and permanent teeth.
- The oral-related structures.
- Dental handpieces, sterilization and other areas.

The FAST Trac Dental Assistant program is available at the Abilene campus.

Program Information:

Course Contact Hours	100 hours
Clinical Hours	40 hours (Optional)

Tuition: $2,595

Includes:
- Textbooks
- TSBDE Exam Fee and Proctoring
- CPR Certification Course
- Clinical Externship Placement–40 hours

Does Not Include:
- DANB-RHS/ICE Exam Fees
- Immunizations
- Background Check
- Scrubs (Required)

NOTE: Enrolled students transferring out of state are eligible for the online course with clinical externship placement. Outside of Texas, most states and employers require DANB-RHS/ICE certification. The cost for taking the RHS and ICE exams together is $375.

Scheudule:

Monday and Wednesday	6–9:30 p.m.
Tuesday and Thursday	6–9:30 p.m.
Saturday	9 a.m.–4:30 p.m.

Dates and times are subject to change.

For more information, please contact:
Cindy Brunett
Project Manager
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325-734-3658

Drone Pilot Training

FAA Part 107 Test Prep
Overview of the FAA Part 107 Test Prep Drone class. This course includes the guidelines for flying Small Unmanned Aircraft Systems (sUAS) (less than 55 lbs.) in the United States, preparation to study for and take the 2-hour, 60-question FAA written test, along with hands-on flight training

Once the participant has completed the course, they will have knowledge and skills of the following:

- FAA FAR Part 107.
- National Airspace System.
- Sectional Charts and Airport Operations.
- Aviation Physiology.
- Crew Resource Management.
- Aeronautical Decision Making.
- Aviation Weather.
- Maintenance and Preflight Procedures.
- Emergency Procedures.
- Small Unmanned Aircraft System Performance.

The Drone Pilot Training (Part 107) program is available at the Abilene, Harlingen and Waco campuses.

Drone Pilot Training (Part 107)	24 hours
Total program	24 hours

Cost: $535

Does not include testing fees.

For more information, please contact:
TSTC Workforce Training & Continuing Education
FlyDrones@tstc.edu

Electrocardiography Technician (EKG)

The Electrocardiogram (EKG) program prepares the student in administering the 12 Lead EKG on patients. The course teaches the fundamentals of cardiovascular anatomy and physiology. Students will learn basic electrocardiography procedures, interpretation of basic dysrhythmias, and appropriate treatment modalities. EKG's are critical in helping determine a patient's heart health. EKGs check the electrical activity of the heart to access heart rhythm, rate, strength and timing and pointing to signs of heart disease. An EKG is one of the first assessments provided after a heart attack and helping prescribe treatment.

Employment or possible career opportunities:

- Cardiology Assistant
- Cardiology Technician
- Electrocardiogram Technician
- Cardiac Monitor Technician
- EKG Technician
- Hospitals
- Physicians' Offices
- Clinical Laboratory

The EKG program is available at the Harlingen campus.

ECRD 1011	EKG	96 hours
	Total program	96 hours

Cost: $1,200

For more information, please contact:
Janie Barron
Project Manager
TSTC Workforce Training & Continuing Education
janie.barron@tstc.edu
956-364-4615

NCCER Electrical Level 1

Electricians install electrical systems, wiring and other electrical components, as well as following blueprints and conforming to national, state and local codes.

NCCER Core (73 hours)
The NCCER Core Curriculum is a prerequisite and foundation to all other Level 1 craft curriculum. Its modules cover topics such as basic safety, communication skills, and introduction to construction drawings. Completing this curriculum gives the trainee the basic skills needed to continue education in any craft area he or she chooses.

Basic Electrical Wiring NCCER (113 hours)
Presentation of the theory of residential electric circuits. Topics include load calculations and safety in electrical work, installation of wiring, load protection, ground fault, and other devices commonly used in 110-volt household applications.

Safety Component (14 hours)
OSHA General Industry/Construction Safety and Health provides an introduction to specific training techniques involving the safe handling of blood- and air-borne pathogens, as well as general safety and security on the premises. Addresses the right to know and MSDS. Outlines occupational Safety and Health Administration (OSHA) regulations, inspections, penalties and compliance. The trainee will be able to:

- Demonstrate proficiency in handling critical and safety situations.
- Explain the importance of performing tasks safely and correctly.
- Maintain a situation in compliance with OSHA regulations.

Forklift Component (12 hours)

- Safety awareness, components identification and field driving exercises.
- Analyzing hydraulic and electrical components and safety precautions.
- Discussion of preventing maintenance and basic repairs.
- Variety of exercises, lifting techniques and additional criteria evaluation such as surface conditions.
- Successfully demonstrate maneuvering exercises around simulated obstacle course.

CPR/AED/First Aid (12 hours)

- Lifesaving skills of respiratory (choking and near-drowning) and cardiac emergencies involving adults, children and infants. Automated External Defibrillator inclusive. Instruction in first aid for injured and ill persons. Students will discuss and demonstrate assessment and management of injured and/or ill persons as recommended by the certifying agency. Students must meet requirements as specified by the certifying agency. Show proficiency according to current guidelines of the credentialing agency. Lab is required. Upon successful completion of the course, students will receive a certification card.
- Licensure/Certification Agency: American Heart Association, American Safety and Health Institute, National Safety Council.

Program Information

- Program total: 224 hours.
- Tuition: $4,500.
- Materials per student: $500.
- Minimum of six students to make the course.
- Books, tools and labs included.
- Certifications: OSHA 10, Forklift, CPR.

The NCCER Electrical Level 1 program is available at the Harlingen campus.

NCCER Electrical Level 1	224 hours
Total program	224 hours

Cost: $4,500

For more information, please contact:
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Heavy Duty Diesel Engine Specialist

The Diesel Technology student will acquire the knowledge and skills necessary for the repair of diesel engines and troubleshooting/diagnostic procedures through a combination of lecture and lab work over the course of six weeks. Our classrooms and labs are interactive and have a real-world setting. This program gives students knowledge and hands-on skills to prepare them for a rapidly growing industry that is requiring a growing number of qualified technicians.

The Heavy Duty Diesel Engine Specialist program is available at the Harlingen campus.

DEMR 1001	Heavy Duty Diesel Engine Specialist	240 hours
	Total program	240 hours

Cost: $4,500

For more information, please contact:
Linda L. Cavazos
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linda.cavazos@tstc.edu
956-364-4553

Industrial Maintenance Electrical and Instrumentation (IM E&I) Technician

The Industrial Maintenance Electrical and Instrumentation (IM E&I) Technician program serves to build connections with the manufacturing industry, providing transitioning service members, National Guard and Reservists, veterans, military spouses, and civilians with the skills and certifications to find and excel in careers in manufacturing. Resources are also available to assist manufacturers with recruiting, hiring and retaining talent from the military community.

Certifications include:

- NCCER - Industrial Maintenance Electrical and Instrumentation (IM E&I) Technician, Level 1

The Industrial Maintenance Electrical and Instrumentation (IM E&I) Technician program is available at the Waco campus.

Electrical Safety for Qualified Electrical Personnel	8 hours
Motor Control and Troubleshooting	32 hours
Industrial Automation Principles	32 hours
Controller Technology and Programming	56 hours
Drive Configuration and Troubleshooting	24 hours
NCCER Core and Industrial Maintenance	195 hours
E&I Technician (Level 1) Certification	
Total Program	347 hours

Total Cost: $2,750

For more information, please contact:
Courtney Cox
TSTC Workforce Training & Continuing Education
courtney.cox@tstc.edu
254-867-2008

NCCER Maritime Welding Level 1

The National Center for Construction Education & Research (NCCER) Maritime Welding Level 1 curriculum is a 275 instruction-hour program that is the first course in a series of three courses that comprises the NCCER Maritime Welding curriculum. It is a basic introduction to the welding trade made up of 21 modules consisting of specific learning objectives and performance tasks and includes a 9 module Core Curriculum which is a prerequisite for all NCCER craft training. Completing this curriculum gives the trainee the basic entry-level skills needed for employment and to continue their education in the welding trade with an introduction to the maritime industry.

Certifications include:
NCCER Maritime Welding Level 1

The NCCER Maritime Welding program is available at the Harlingen campus.

Core Curriculum
Basic Site Safety
Introduction to Construction Math
Introduction to Hand Tools
Introduction to Power Tools
Introduction to Construction Drawings
Introduction to Basic Rigging
Basic Communication Skills
Basic Employability Skills
Introduction to Material Handling

Introduction to Maritime Industry

NCCER Welding Level 1 Curriculum
Welding Safety
Oxyfuel Cutting
Plasma Arc Cutting
Air-Carbon Arc Cutting and Gouging
Base Metal Preparation
Weld Quality
SMAW – Equipment and Setup
SMAW Electrodes
SMAW – Beads and Fillet Welds
Joint Fit-Up and Alignment
SMAW – Groove Welds with Backing
SMAW – Open-Root Groove Welds - Plate

Total Program 275 hours

Cost: $4,500
Materials included.
Personal Protective Equipment (PPE) required.

Prerequisite: Trainees must have completed NCCER core course prior to continuing in NCCER craft training.

For more information, please contact:
Gerardo Briones
Interim Executive Director
Workforce Training & Continuing Education
gerardo.briones@tstc.edu
956-364-4603

Mechatronics

Mechatronics is an emerging field that integrates electrical and mechanical engineering, advanced manufacturing, and computer technology. The Mechatronics program serves to build connections with the manufacturing industry, providing transitioning service members, National Guard and Reservists, veterans, military spouses, and civilians with the skills and certifications to find and excel in careers in manufacturing. Resources are also available to assist manufacturers with recruiting, hiring and retaining talent from the military community.

Mechatronics program highlights:
- Department of Defense Approved SkillBridge Program
- Includes seven certifications from the Smart Automation Certification Alliance (SACA)
- Specialist series that certify Industry 4.0 technical skills in troubleshooting, programming, maintaining, and integrating systems

Essential Advanced Manufacturing Topics:
- Electrical Components and Schematics
- Mechanical Components and Electric Drives
- (Electro) Pneumatics and Hydraulics
- Digital Fundamentals and Automation
- Programmable Logic Controllers (PLCs)

The Mechatronics program is available at the Waco campus.

Courses:
- NFPA 70E Arc Flash
- Basic Electrical Theory
- Alternating Current
- Wiring
- Electrical Print Reading
- Motor Theory
- Motor Controls and Troubleshooting
- Basic Programmable Logic Controllers (PLC)
- Intermediate Programmable Logic Controllers (PLC)
- Pumps, Compressors, and Mechanical Drives / Power Transmission – Belt Drives, Couplings, Chain Drives, Gearing
- Machinery Installation / Shaft and Coupling Alignment
- Lubrication
- Hydraulics and Pneumatics

Total Program: 288 hours
Cost: $2,750

For more information, please contact:
Courtney Cox
TSTC Workforce Training & Continuing Education
courtney.cox@tstc.edu
254-867-2008

Pharmacy Technician

The Pharmacy Technician Program is an online-based program, designed to prepare students to test for the Pharmacy Technician Certification (PTCB) licensure exam through a 15-week course. All information for recertification will also be provided. Each section has tests and quizzes designed to complete and pass.

Week 1: Orientation
Week 2: Federal Law
Week 3: Federal Law
Week 4: Medication Review
Week 5: Medication Review
Week 6: Medication Review
Week 7: Aseptic Techniques
Week 8: Aseptic Techniques
Week 9: Calculations
Week 10: Calculations
Week 11: Calculations
Week 12: Pharmacy Operations
Week 13: The Study Aids
Week 14: Pre-Final
Week 15: The Final Exam

Pharmacy Technician Certification (PTCB)	240 hours
Total program	240 hours

Cost: $2250

The Pharmacy Tech program is available online through the Harlingen campus.

For more information, please contact:
Janie Barron
Project Manager
TSTC Workforce Training & Continuing Education
janie.barron@tstc.edu
956-364-4615

Phlebotomy Technician

The Phlebotomy course prepares the student in the various blood collection methods, using proper techniques and universal precautions. Recommended by NCCLS, students will be trained on vacuum collection devices, syringes, capillary skin puncture blood-culture and specimen collection. Students will learn medical terminology, related anatomy, physiology and utilization of laboratory equipment High emphasis is placed on professionalism, ethics, proper patient identification, labeling of specimens, quality specimen handling and processing. Successful completion of the course will prepare students to challenge the ASCP National Registry Exam.

Employment of phlebotomist is projected to grow 25 percent by 2026, much faster than the average for all occupation. Hospitals, diagnostic laboratories, blood donor centers, and other locations will need phlebotomist to perform blood work.

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Employment or possible career opportunities:

- Hospitals and clinics
- Diagnostic Laboratories
- Blood donor centers
- Health maintenance organizations
- Public health agencies
- Nursing homes
- Research institutions

Phlebotomy Technician is available at the Harlingen campus.

PLAB 1060	Phlebotomy (Lab Hours)	96 hours
	Phlebotomy (Clinical Hours)	150 hours
	Total program	246 hours

Cost: $1,200

For more information, please contact:
Janie Barron
Project Manager
TSTC Workforce Training & Continuing Education
janie.barron@tstc.edu
956-364-4615

Professional Bus Driver Training

This course prepares students to take their written permit exam in order to receive a Class B CDL with Endorsements, including:

- Passenger
- School Bus

Students must pass the written CDL Permit with DMV. Students will not be permitted to drive on public roads until a CDL permit has been obtained. The Harlingen location is a third-party examining site.

Training covers topics in Basic Operations, Safe Operating Practices, Vehicle Maintenance, and other activities such as Railroad Crossings, Speed and Space Management, Documentation Regulations, Accident Procedures, and Extreme Conditions.

Requirements for admission to TSTC and the Commercial Bus Driver program:

- Must be at least 18 years of age. (The U.S. Department of Transportation (DOT) requires that all interstate drivers be at least 21 years of age.
- Must provide a driving record free of current serious violations.
- Must be able to pass a Department of Transportation (DOT) physical as required by Federal & State agencies.
- Must be able to pass a drug screen when administered.
- No felony convictions in the past five (5) years. All criminal records are subject to review and may be required to provide a letter of intent to hire from a prospective employer.

Professional Bus Driver training is available at the Fort Bend County and Harlingen campuses.

Professional Bus Driver Training

CVOP 1011	Professional Bus Driver Training	120 hours
	Total program	120 hours

Cost: $2,500

For more information, please contact:
Linda L. Cavazos
TSTC Workforce Training & Continuing Education
linda.cavazos@tstc.edu
956-364-4553

Welding

Eight-Week Structural Welding Program
This program is designed to prepare the student for entry level employment in the welding industry. The course content applies to manufacturing, fabrication, construction, maintenance and repair and shipbuilding.

The program teaches the student structural welding used for welding carbon steel plate. They will learn to set up oxy fuel welding and cutting equipment, welding machines, gas flow meters and welding guns. Students will then practice welding plate in the fillet weld and v-groove positions.

Weld Processes covered are:
- Shielded Metal Arc Welding (SMAW).
- Gas Metal Arc Welding (GMAW).
- Flux Core Arc Welding (FCAW).
- Gas Tungsten Arc Welding (GTAW).

Classroom topics include:
- Weld Theory.
- Inspection and Non-destructive Examination.
- Basic Metallurgy.
- Preheat and Post Heat Applications.
- Welding Codes and Standards.

Each lesson begins in weld safety and theory and concludes in lab practice application.

Upon successful completion of the program, the student should be able to qualify in tack, fillet, and groove welds on carbon steel plate to American Welding Society standards. This qualification is essential to gaining employment in the welding industry. Safe work practices are taught in both the classroom and welding lab.

The Eight-Week Structural Welding Program is available at the Waco campus.

WLDG 1028	Introduction to Shielded Metal Arc Welding (SMAW)	80 hours
WLDG 1007	Introduction to Welding Using Multiple Processes	160 hours
WLDG 1034	Introduction to Gas Tungsten Arc (GTAW) Welding	80 hours
	Total Program	320 hours

Total Cost: $4,500

For more information, please contact:
TSTC Workforce Training & Continuing Education
MobileWelding@tstc.edu

Welder Fabricator and Fitter

Knowledgeable. Efficient. Competent. Those words can describe you after you complete training in the Structural Metal Fabricator and Fitter program. Whether your objective is to gain additional skills or embark on a rewarding career, this program will give you the solid foundation necessary to achieve your goals. The curriculum encompasses basic welding and fabrication methods, and blueprint reading, providing you with the essential knowledge and hands on experience you need to succeed.

Welder Fabricator and Fitter is available at the Harlingen campus.

Introduction to Welding Fundamentals (70 hours)
An introduction to the fundamentals of equipment used in oxy-fuel and arc welding, including welding and cutting safety, basic oxy-fuel welding and cutting, basic arc welding processes and basic metallurgy.

Introduction to Blueprint Reading for Welders (30 hours)
A study of industrial blueprints with an emphasis placed on terminology, symbols, graphic description, and welding processes. Training includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production.

Introduction to Layout and Fabrication (120 hours)
A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.

Safety Component (14 hours)
OSHA General Industry/Construction Safety and Health provides an introduction to specific training techniques involving the safe handling of blood and air borne pathogens as well as general safety and security on the premises. Addresses the right to know and MSDS. Outlines occupational Safety and Health Administration (OSHA) regulations, inspections, penalties, and compliance. The trainee will be able to:

- Demonstrate proficiency in handling critical and safety situations
- Explain the importance of performing tasks safely and correctly
- Maintain a situation in compliance with OSHA regulations

Fork Lift Component (12 hours)

- Safety awareness, components identification, and field driving exercises
- Analyzing the hydraulic and electrical components and safety precautions
- Discussion of preventing maintenance and basic repairs
- Variety of exercises, lifting techniques & additional criteria evaluation such as surface conditions
- Successfully demonstrate maneuvering exercises around simulated obstacle course

Program Information

- Materials Per Student: $500
- Minimum of four students to make the course
- Books, tools and labs included

WLDG 1021	Introduction to Welding Fundamentals	70 hours
PFPB 1043	Introduction to Blueprint Reading for Welders	30 hours
WLDG 1055	Introduction to Layout and Fabrication	120 hours
OSHT 1003	Safety Component	14 hours
CNSE 1003	Fork Lift Component	12 hours
	Total program	246 hours

Cost: $4,500

For more information, please contact:
Janie Barron
Project Manager
TSTC Workforce Training & Continuing Education
janie.barron@tstc.edu
956-364-4615

NCCER Welding Safety

NCCER Welding Safety is available at the Harlingen campus.

A welding technician works in the area of fabrication, construction and manufacturing industries.

NCCER Core (73 hours)
The NCCER Core Curriculum is a prerequisite and foundation to all other Level 1 craft curriculum. Its modules cover topics such as basic safety, communication skills, and introduction to construction drawings. Completing this curriculum gives the trainee the basic skills needed to continue education in any craft area he or she chooses.

NCCER Fundamentals of Oxy-Fuel Welding and Cutting (40 hours)
Oxy-fuel welding and cutting equipment. Includes equipment safety, setup and maintenance.

NCCER Introduction (SMAW) (130 hours)
An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection and various joint designs.

NCCER Intermediate (SMAW) (115 hours)
A study of the production of various fillet and groove welds. Preparation of specimens for testing in various positions.

Program Information

- Program total: 358 hours.
- Tuition: $4,500.
- Materials per student: $500.
- Books, tools and labs included.

NCCER Welding Safety	358 hours
Total program	358 hours

Total Cost: $5,000

For more information, please contact:
Janie Barron
Project Manager
TSTC Workforce Training & Continuing Education
janie.barron@tstc.edu
956-364-4615

FAST Trac Wind Energy Technician

The FAST Trac Wind Energy Technician program prepares students for an entry level position in the high-growth wind industry. This fast-paced 10-week program will provide you with the knowledge and certifications needed to work in the wind industry. Students will learn the essential skills through classroom and lab exercises that are required of entry level wind technicians. Students should be prepared for a course that is rigorous and fast paced. After successful completion of the Certified Electronics Technician Associate section, students will be registered to take the CET(a) Examination. Successful completion of the exam will provide students with an industry recognized certification as well as nine (9) credit hours that can be applied toward an Associate's Degree Plan with Texas State Technical College.

The FAST Trac Wind Energy Technician program is available at the Fort Bend County, Harlingen, and Sweetwater campuses.

Program Information:

CETT 1003	DC Circuits	48 hours
TECM1003	Technical Calculations	48 hours
WIND 1000	Introduction to Wind Energy	32 hours
WIND 1002	Wind Safety	16 hours
CETT 1005	AC Circuits	48 hours
CETT 1025	Digital Fundamentals	48 hours
ELMT 1005	Basic Fluid Power	8 hours
ELMT 2035	Certified Electronics Technician Training	48 hours
	Total Program	296 hours

Tuition: $3,425
Materials & Test Fees: $175
(Books, Tools, and Labs Included)
Total Cost: $3,600

For more information, please contact:
Janie Barron
TSTC Workforce Training & Continuing Education (Fort Bend County & Harlingen)
janie.barron@tstc.edu
956-364-4615

Cindy Brunett
Project Manager
TSTC Workforce Training & Continuing Education (Sweetwater)
cindy.brunett@tstc.edu
325-734-3658

FACULTY

TSTC faculty bring to the classroom years of industry experience and education. To view a complete list, go to tstc.edu/programslist/courseschedules.

ESSENTIAL ELEMENTS

Essential Elements

The Essential Elements of a program indicate the prerequisite, minimum abilities a student must demonstrate in order to 1) perform the functional requirements of the program, and 2) meet industry-standard occupational expectations. In this context, "abilities" are defined as the "enduring attributes of the individual that influence performance" and they may include cognitive, psychomotor, physical, and/or sensory abilities. Each program will require its students and graduates to become competent practitioners in their field and meet the requirements of the intended occupation.

A program shall not discriminate against otherwise-qualified individuals with disabilities who apply for admission to the program. Otherwise-qualified individuals shall not be excluded from admission or participation in a program solely by reason of their disability or medical condition. TSTC, in collaboration with the program, will provide reasonable accommodations to otherwise-qualified individuals with disabilities. A reasonable accommodation is one that does not create a fundamental alteration to the program requirements (e.g., substantial program modification, lower academic standards, etc.).

Should an applicant have or develop a condition that places them in the position of not being able to meet an essential element and no reasonable accommodation can be identified and this is such that it would jeopardize his or her ability to complete the program and pursue program-related industry employment, the candidate may be denied admission to that program.

Should an admitted student have or develop a condition that places the student in the position of not being able to meet an essential element and no reasonable accommodation can be identified and this is such that it would jeopardize his or her ability to complete the program and pursue program-related industry employment, the student may be dismissed from the program.

Applicants to a program should verify that they understand and can meet the essential elements established by a program or that they believe, with certain reasonable accommodations, they can meet the standards.

It is the responsibility of a student with a disability (or a student who develops a disability) and who needs an accommodation to notify the Access and Learning Accommodations (ALA) office of the disability (adarequest@tstc.edu), and to provide adequate documentation of the general nature and extent of the disability and the functional limitations to be accommodated. A student who has or develops any chronic disease or condition that may affect his or her ability to meet the Essential Elements will be expected to seek input and appropriate intervention from appropriate professionals.

Aircraft Pilot Training Technology

Kelly Filgo
kmfilgo@tstc.edu

Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
- Flexibility of Closure: The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- Fluency of Ideas: The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
- Inductive Reasoning: The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- Information Ordering: The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- Mathematical Reasoning: The ability to choose the right mathematical methods or formulas to solve a problem.
- Memorization: The ability to remember information such as words, numbers, pictures, and procedures.
- Number Facility: The ability to add, subtract, multiply, or divide quickly and correctly.
- Oral Comprehension: The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression: The ability to communicate information and ideas in speaking so others will understand.
- Originality: The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- Perceptual Speed: The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object.
- Problem Sensitivity: The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.

- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.
- Speed of Closure: The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- Time Sharing: The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- Visualization: The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Written Comprehension: The ability to read and understand information and ideas presented in writing.
- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- Finger Dexterity: The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Rate Control: The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.
- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- Response Orientation: The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.
- Speed of Limb Movement: The ability to quickly move the arms and legs.
- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Explosive Strength: The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object.
- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
- Depth Perception: The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.
- Far Vision*: The ability to see details at a distance.
- Glare Sensitivity: The ability to see objects in the presence of glare or bright lighting.
- Hearing Sensitivity: The ability to detect or tell the differences between sounds that vary in pitch and loudness.
- Near Vision*: The ability to see details at close range (within a few feet of the observer).
- Night Vision: The ability to see under low light conditions.
- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.

- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

*Near and far vision ability can be achieved with corrective lenses

Additional Information

- Students who wish to enter the APT program must pass an FAA Class II Flight Physical as defined at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/ame/guide/standards/
- Students who wish to enter a career as an Airline Transport Pilot must pass an FAA Class I Flight Physical as defined at the same address above.

Auto Collision & Management Technology

Clint Campbell
cmcampbell@tstc.edu

Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
- Flexibility of Closure: The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
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- Problem Sensitivity: The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.
- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.
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Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
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- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Rate Control: The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.

- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- Response Orientation: The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.
- Speed of Limb Movement: The ability to quickly move the arms and legs.
- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Explosive Strength: The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object.
- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.

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- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
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- Far Vision: The ability to see details at a distance.
- Glare Sensitivity: The ability to see objects in the presence of glare or bright lighting.
- Hearing Sensitivity: The ability to detect or tell the differences between sounds that vary in pitch and loudness.
- Near Vision: The ability to see details at close range (within a few feet of the observer).
- Night Vision: The ability to see under low light conditions.
- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Automation and Controls Technology

Juan Alferez
jaalferez@tstc.edu

Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Flexibility of Closure: The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- Inductive Reasoning: The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- Information Ordering: The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- Mathematical Reasoning: The ability to choose the right mathematical methods or formulas to solve a problem.
- Memorization: The ability to remember information such as words, numbers, pictures, and procedures.
- Number Facility: The ability to add, subtract, multiply, or divide quickly and correctly.
- Oral Comprehension: The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression: The ability to communicate information and ideas in speaking so others will understand.
- Originality: The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- Perceptual Speed: The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after

the other. This ability also includes comparing a presented object with a remembered object.

- Problem Sensitivity: The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.
- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.
- Speed of Closure: The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- Written Comprehension: The ability to read and understand information and ideas presented in writing.
- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Rate Control: The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.
- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- Speed of Limb Movement: The ability to quickly move the arms and legs.
- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Explosive Strength: The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object.
- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
- Depth Perception: The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.
- Far Vision: The ability to see details at a distance.
- Glare Sensitivity: The ability to see objects in the presence of glare or bright lighting.
- Hearing Sensitivity: The ability to detect or tell the differences between sounds that vary in pitch and loudness.
- Near Vision: The ability to see details at close range (within a few feet of the observer).
- Night Vision: The ability to see under low light conditions.
- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Automotive Technology

Rudy Cervantez
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Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
- Flexibility of Closure: The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- Fluency of Ideas: The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
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- Problem Sensitivity: The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.
- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.
- Speed of Closure: The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- Time Sharing: The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- Visualization: The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Written Comprehension: The ability to read and understand information and ideas presented in writing.
- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
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- Finger Dexterity: The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
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Physical Abilities

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- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
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- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Aviation Maintenance (Airframe & Powerplant)

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Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
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- Perceptual Speed: The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object.

- Problem Sensitivity: The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.
- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.
- Speed of Closure: The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- Time Sharing: The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- Visualization: The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Written Comprehension: The ability to read and understand information and ideas presented in writing.
- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
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- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Rate Control: The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.
- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
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- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

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- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
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- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
- Depth Perception: The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.
- Glare Sensitivity: The ability to see objects in the presence of glare or bright lighting.
- Hearing Sensitivity: The ability to detect or tell the differences between sounds that vary in pitch and loudness.
- Near Vision: The ability to see details at close range (within a few feet of the observer).
- Night Vision: The ability to see under low light conditions.

- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.

Avionics Technology

Martin Segraves
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Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
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- Oral Expression: The ability to communicate information and ideas in speaking so others will understand.
- Originality: The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- Perceptual Speed: The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object.
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- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.
- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.
- Speed of Closure: The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- Time Sharing: The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- Visualization: The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Written Comprehension: The ability to read and understand information and ideas presented in writing.
- Written Expression: The ability to communicate information and ideas in writing so others will understand.
- Other: Per FAA requirement, the ability to read, write, and understand the English language.

Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- Finger Dexterity: The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Rate Control: The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.
- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- Response Orientation: The ability to choose quickly between two or more movements in response to two or

more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.

- Speed of Limb Movement: The ability to quickly move the arms and legs.
- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.
- Other: The ability to work in confined spaces that require significant flexibility.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
- Depth Perception: The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.
- Hearing Sensitivity: The ability to detect or tell the differences between sounds that vary in pitch and loudness.
- Near Vision: The ability to see details at close range (within a few feet of the observer).
- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Additional Information

- Avionics Technicians often climb ladders and work on scaffolds.

Biology

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Cognitive Abilities

- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
- Fluency of Ideas: The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
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- Memorization: The ability to remember information such as words, numbers, pictures, and procedures.
- Number Facility: The ability to add, subtract, multiply, or divide quickly and correctly.
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Biomedical Equipment Technology

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Cognitive Abilities

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- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.
- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.
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Psychomotor Abilities

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- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Additional Information

- Biomedical Equipment Technicians must be able to communicate with many different people while in stressful situations: patients, nurses, doctors, surgeons, technicians, administration, as well as supervisors and other technical persons.

Building Construction Technology

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Cognitive Abilities

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- Oral Expression: The ability to communicate information and ideas in speaking so others will understand.
- Originality: The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- Perceptual Speed: The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same

time or one after the other. This ability also includes comparing a presented object with a remembered object.

- Problem Sensitivity: The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.
- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.
- Speed of Closure: The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- Time Sharing: The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- Visualization: The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Written Comprehension: The ability to read and understand information and ideas presented in writing.

Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- Finger Dexterity: The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Rate Control: The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.
- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- Response Orientation: The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.
- Speed of Limb Movement: The ability to quickly move the arms and legs.
- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Explosive Strength: The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object.
- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
- Depth Perception: The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.
- Far Vision: The ability to see details at a distance.
- Glare Sensitivity: The ability to see objects in the presence of glare or bright lighting.
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- Night Vision: The ability to see under low light conditions.
- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.

- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Business Management Technology

Cindy Mata
cbmata@tstc.edu

Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
- Flexibility of Closure: The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
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- Written Comprehension: The ability to read and understand information and ideas presented in writing.
- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Psychomotor Abilities

- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
- Near Vision: The ability to see details at close range (within a few feet of the observer).
- Speech Clarity: The ability to speak clearly so others can understand you.
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Chemical Dependency Counseling

Patricia Bundick
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- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Physical Abilities

- The ability to stand or sit for extended periods of time.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
- Near Vision: The ability to see details at close range (within a few feet of the observer).
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.

Computer Programming Technology

Shannon Ferguson
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Cognitive Abilities

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Computer Networking & Systems Administration

Emanuel Palacios
epalacios3287@tstc.edu

Cognitive Abilities

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Physical Abilities

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- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
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- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
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Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
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- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.

- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Computer Science

Javier Nieto
janieto48874@tstc.edu

Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
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- Speech Clarity: The ability to speak clearly so others can understand you.

Culinary Arts

Len Pawelek
alpawelek@tstc.edu

Cognitive Abilities

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Psychomotor Abilities

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Physical Abilities

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Cybersecurity

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Cognitive Abilities

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- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
- Glare Sensitivity: The ability to see objects in the presence of glare or bright lighting.
- Hearing Sensitivity: The ability to detect or tell the differences between sounds that vary in pitch and loudness.
- Near Vision: The ability to see details at close range (within a few feet of the observer).
- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Dental Hygiene

Raquel Rico
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Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
- Fluency of Ideas: The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
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- Oral Expression: The ability to communicate information and ideas in speaking so others will understand.
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- Problem Sensitivity: The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
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- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- Finger Dexterity: The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
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- Response Orientation: The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.

- Speed of Limb Movement: The ability to quickly move the arms and legs.
- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
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Diesel Equipment Technology

Henry Macik
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Cognitive Abilities

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- Speech Clarity: The ability to speak clearly so others can understand you.

Digital Media Design

Jerry Vavra
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Education and Training

Myriam Aguila
maguila@tstc.edu

Cognitive Abilities

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- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
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- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Electrical Lineworker Technology

Eric Carithers
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Cognitive Abilities

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Electrical Power & Controls

Daniel Bateman
dan.bateman@tstc.edu

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- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Electromechanical Technology

Billie Jones
billie.jones@tstc.edu

Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
- Flexibility of Closure: The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.

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- Oral Comprehension: The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression: The ability to communicate information and ideas in speaking so others will understand.
- Originality: The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
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- Problem Sensitivity: The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.
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- Time Sharing: The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- Visualization: The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
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Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- Finger Dexterity: The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
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Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Explosive Strength: The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object.
- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.

- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
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Emergency Medical Services (EMS)

Ronnie Pitts
jrpitts@tstc.edu

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Engineering

Hermes Chirino
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Health Information Technology

Sarah Brooks
sdbrooks@tstc.edu

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Additional Information

- The ability to work in the online environment with industry-related technology.

HVAC Technology

Lance Lucas
cllucas@tstc.edu

Cognitive Abilities

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Industrial Systems

Edward Chaney
eachaney@tstc.edu

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Instrumentation Technology

Robert Lovelace
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Mathematics

Kyumars Ardalani
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- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.

Mechatronics Technology

Robert Lovelace
bob.lovelace@tstc.edu

Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
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- Written Comprehension: The ability to read and understand information and ideas presented in writing.
- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.

- Finger Dexterity: The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Rate Control: The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.
- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- Response Orientation: The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.
- Speed of Limb Movement: The ability to quickly move the arms and legs.
- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Explosive Strength: The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object.
- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
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- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Nursing — ADN Transition Program

Shirley Byrd
sabyrd@tstc.edu

Cognitive Abilities

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- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Response Orientation: The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.
- Speed of Limb Movement: The ability to quickly move the arms and legs.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
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Additional Information

- Ability to walk the equivalent of five (5) miles a day and climb two or more flights of stairs;
- Ability to reach above shoulder level;
- Ability to bend, stoop and lift from low area/floor to waist high level;
- Ability to lift, balance and carry up to fifty (50) pounds unassisted;
- Ability to grip 5-10 pounds of pressure and dexterity to pick up small items;
- Ability to sit or stand for long periods of time- three (3) or more hours at a time;
- Ability to perform CPR with compressions at a rate of 100 beats per minute;
- Ability to hear tape recorded transcriptions and distinguish emergency monitors/ sounds;
- Ability to distinguish colors; good overall eyesight corrected with glasses if necessary;
- Ability to view small numbers on medication vials/ read small print;
- Ability to interpret written and oral forms of instructions (ENGLISH/abbreviations/ terminology);
- Ability to converse, interview/communicate with co-workers, patients and family members;
- Ability to read and document legibly in ENGLISH at or above the college level;
- Ability to work in high risk / high stress areas as is common to the profession.
- Ability to read and comprehend college level coursework including math calculations for pharmacology.

Occupational Safety and Environmental Compliance

Martin Knudsen
Mknudsen@tstc.edu

Cognitive Abilities

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Psychomotor Abilities

- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.

Sensory Abilities

- Depth Perception: The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.
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- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.

Additional Information

- The ability to present thoughts and information to groups of people.

Physics

Jose Alvarez
jaalvarez13122@tstc.edu

Cognitive Abilities

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Plumbing & Pipefitting Technology

Jimmy Bibb
jwbibb@tstc.edu

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Psychomotor Abilities

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Physical Abilities

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Robotics Technology

Brandon McMahan
btmcmahan@tstc.edu

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Solar Energy and Electrical Construction

Hugh Whitted
hhwhitted@tstc.edu

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Psychomotor Abilities

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- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- Finger Dexterity: The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Rate Control: The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.
- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- Response Orientation: The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.
- Speed of Limb Movement: The ability to quickly move the arms and legs.
- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Explosive Strength: The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object.
- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position., Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath., Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects., Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
- Depth Perception: The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.
- Far Vision: The ability to see details at a distance.
- Glare Sensitivity: The ability to see objects in the presence of glare or bright lighting.
- Hearing Sensitivity: The ability to detect or tell the differences between sounds that vary in pitch and loudness.
- Near Vision: The ability to see details at close range (within a few feet of the observer).
- Night Vision: The ability to see under low light conditions.
- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.

- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Surgical Technology

Anna San Pedro
alsanpedro@tstc.edu

Cognitive Abilities

- Category Flexibility: The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
- Flexibility of Closure: The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- Fluency of Ideas: The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
- Inductive Reasoning: The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- Information Ordering: The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- Mathematical Reasoning: The ability to choose the right mathematical methods or formulas to solve a problem.
- Memorization: The ability to remember information such as words, numbers, pictures, and procedures.
- Number Facility: The ability to add, subtract, multiply, or divide quickly and correctly.
- Oral Comprehension: The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression: The ability to communicate information and ideas in speaking so others will understand.
- Originality: The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- Perceptual Speed: The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object.
- Problem Sensitivity: The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.
- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.
- Speed of Closure: The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- Time Sharing: The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- Visualization: The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Written Comprehension: The ability to read and understand information and ideas presented in writing.
- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- Finger Dexterity: The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Rate Control: The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.
- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- Response Orientation: The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.
- Speed of Limb Movement: The ability to quickly move the arms and legs.

- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
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- Night Vision: The ability to see under low light conditions.
- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Visual Communication Technology

Jerry Vavra
jvavra@tstc.edu

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- Memorization: The ability to remember information such as words, numbers, pictures, and procedures.
- Oral Comprehension: The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression: The ability to communicate information and ideas in speaking so others will understand.
- Originality: The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
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- Problem Sensitivity: The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Selective Attention: The ability to concentrate on a task over a period of time without being distracted.
- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.

- Speed of Closure: The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- Time Sharing: The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- Visualization: The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
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Psychomotor Abilities

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Physical Abilities

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Vocational Nursing

Heather Sauceda
hmsauceda@tstc.edu

Cognitive Abilities

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Physical Abilities

- Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.

Sensory Abilities

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- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

Additional Information

- Necessary accommodations that a student needs can be reviewed to ensure the student has every opportunity to participate in our VN Program.

Web Design and Development

Shannon Ferguson
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Cognitive Abilities

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Psychomotor Abilities

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Physical Abilities

- Dynamic Strength: The ability to exert muscle force in hands and fingers repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.

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Welding Technology

Ashley Yezak
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Cognitive Abilities

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Wind Energy Technology

Billie Jones
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Cognitive Abilities

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- Spatial Orientation: The ability to know your location in relation to the environment or to know where other objects are in relation to you.
- Speed of Closure: The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- Time Sharing: The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- Visualization: The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Written Comprehension: The ability to read and understand information and ideas presented in writing.
- Written Expression: The ability to communicate information and ideas in writing so others will understand.

Psychomotor Abilities

- Arm-Hand Steadiness: The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- Control Precision: The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- Finger Dexterity: The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Manual Dexterity: The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Multi-limb Coordination: The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Rate Control: The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.
- Reaction Time: The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- Response Orientation: The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.
- Speed of Limb Movement: The ability to quickly move the arms and legs.
- Wrist-Finger Speed: The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.

Physical Abilities

- Dynamic Flexibility: The ability to quickly and repeatedly bend, stretch, twist, or reach out with your body, arms, and/or legs.
- Dynamic Strength: The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- Explosive Strength: The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object.
- Extent Flexibility: The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- Gross Body Coordination: The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- Gross Body Equilibrium: The ability to keep or regain your body balance or stay upright when in an unstable position.
- Stamina: The ability to exert yourself physically over long periods of time without getting winded or out of breath.
- Static Strength: The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- Trunk Strength: The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.

Sensory Abilities

- Auditory Attention: The ability to focus on a single source of sound in the presence of other distracting sounds.
- Depth Perception: The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.
- Far Vision: The ability to see details at a distance.

- Glare Sensitivity: The ability to see objects in the presence of glare or bright lighting.
- Hearing Sensitivity: The ability to detect or tell the differences between sounds that vary in pitch and loudness.
- Near Vision: The ability to see details at close range (within a few feet of the observer).
- Night Vision: The ability to see under low light conditions.
- Peripheral Vision: The ability to see objects or movement of objects to one's side when the eyes are looking ahead.
- Sound Localization: The ability to tell the direction from which a sound originated.
- Speech Clarity: The ability to speak clearly so others can understand you.
- Speech Recognition: The ability to identify and understand the speech of another person.
- Visual Color Discrimination: The ability to match or detect differences between colors, including shades of color and brightness.

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