TEXAS STATE TECHNICAL COLLEGE

Catalog & Student Handbook

2025–2026

TSTC

Texas State
Technical College

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00. Handbook Home

Message from the Chancellor

Texas State Technical College is not your typical kind of college, and I can't resist telling people about that fact!

TSTC was established 60 years ago to help create a strong Texas. At the time, Governor John Connally predicted that we would become "the most sophisticated technical-vocational institute in the country." TSTC is living true to that vision with 11 campuses in Abilene, Breckenridge, Brownwood, East Williamson County, Fort Bend County, Harlingen, Marshall, New Braunfels, North Texas, Sweetwater and Waco.

Indeed, with a statewide role and mission, TSTC is doing what we were created to do. We are efficiently and effectively helping Texas meet the high-tech challenges of today's global economy in partnership with business and industry, government agencies and other educational institutions.

TSTC graduates are highly valued by business and industry for their work ethic, knowledge and workplace skills. Whether a student is considering upgrading their skills or just starting on a new career path, one of the many TSTC campuses is a great place to prepare for a great-paying job in the vibrant Texas economy.
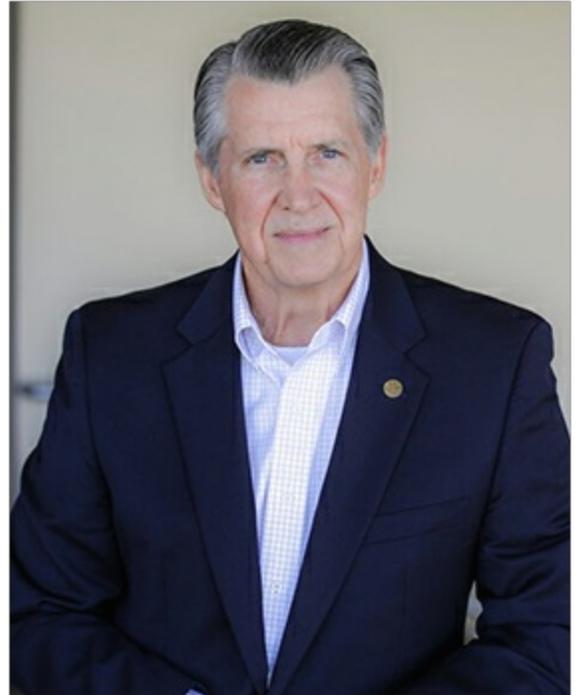
Regards,

Mike Reeser

Chancellor & CEO

01. About the Catalog & Student Handbook

About the Catalog & Student Handbook

2025-2026 Catalog & Student Handbook

The Texas State Technical College (TSTC) Student Catalog and Handbook is your comprehensive guide to everything you need to know about TSTC policies, procedures and academic programs. This catalog serves as the official document of authority, prepared using the most current operating procedures and policies adopted by TSTC.

Degree Plan Requirements:

For degree plans, the 2025-2026 edition applies to new students beginning their studies in the 2025-2026 academic year, as well as returning students whose previous catalog has expired. Students have the option to follow the degree plan outlined in the catalog active during their initial enrollment or select the degree plan requirements from a more recent catalog, provided:

- The program of study is still available.
- The catalog selected is no more than five years old.
- The student has received an approval to change their major into the new catalog.

Changes and Course Offerings:
TSTC reserves the right to revise its procedures, policies and course offerings as needed. Each semester, TSTC publishes an online course schedule detailing the classes available. Please note that not all courses listed in the catalog are offered every semester, but TSTC ensures this information is available to students as early as possible before registration begins.

How to Use this Catalog

In this catalog, TSTC provides a description of the college's program offerings, procedures, policies, facilities and support services. It highlights the wide range of resources available to help you achieve your academic and career goals, including free advising and tutoring services designed to support your success.

TSTC accepts applications year-round, so you can apply at any time. However, many programs fill quickly once registration begins, so we encourage you to apply early. Some programs have additional admission requirements, meaning you may be admitted to TSTC but still need to complete a separate process for program acceptance. For more information, contact an admissions advisor.

From the moment you apply, you will have access to knowledgeable admission advisors and dedicated faculty members who are ready to help you make informed decisions about your chosen path and future career. We are excited to welcome you to the TSTC community and support you throughout your educational journey!

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. In keeping with the policies of the TSTC Board of Regents and in conformance with the laws of the state of Texas, TSTC reserves the right to change any of this catalog's provisions, without notice or obligation. This catalog is not a legal document and does not constitute a contract between TSTC and the user.

02. Academic Calendar

Academic & Events Calendar

Find important dates and events at tstc.edu/events.

FALL 2025   **25/FA Semester**

March 24, 2025	Registration for 2025 Fall Semester Starts
August 3, 2025	Payment Deadline for 15- and 12-Week Sessions
August 29, 2025	Fall Registration Ends (15-Week Session)
September 1, 2025	Student and Staff Holiday
September 2, 2025	First Class Day for 15- and 12-Week Sessions
September 12, 2025	Official Census Date (9th Class Day) for 12-Week Session
September 16, 2025	Official Census Date (11th Class Day) for 15-Week Session
October 10, 2025	Mid-Term Grades Due for 12-Week Session
October 24, 2025	Mid-Term Grades Due for 15-Week Session
October 27, 2025	Registration Begins 26/SP (All Students)
October 31, 2025	Last Day to Drop with a "W" for 12-Week Session
November 14, 2025	Last Day to Drop with a "W" for 15-Week Session
November 17, 2025	Final Exams Begin for 12-Week Session
November 21, 2025	End of Semester for 12-Week Session (Classes may continue beyond this date as scheduled, e.g., Saturday)
November 24, 2025	All Final Grades for the 12-Week Semester Due by 10 a.m.
November 27-28, 2025	Student and Staff Holiday
December 8, 2025	Final Exams Begin for 15-Week Session
December 12, 2025	End of Semester for 15-Week Session (Classes may continue beyond this date as scheduled, e.g., Saturday)
December 15, 2025	All Final Grades for the 15-Week Semester Due by 10 a.m.
SPRING 2026	**26/SP Semester**
October 27, 2025	Registration Begins 26/SP (All Students)
December 13, 2025	Payment Deadline for 15-Week Session
January 2, 2026	Payment Deadline for 12-Week Session
January 9, 2026	Spring Registration Ends (15-Week Session)
January 12, 2026	First Class Day for 15-Week Session
January 19, 2026	Student & Staff Holiday
January 27, 2026	Official Census Date (11th Class Day) for 15-Week Session
January 29, 2026	Spring Registration Ends (12-Week Session)
February 2, 2026	First Class Day for 12-Week Session
February 12, 2026	Official Census Date (9th Class Day) for 12-Week Session
March 6, 2026	Mid-Term Grades Due for 15-Week Session
March 13, 2026	Mid-Term Grades Due for 12-Week Session
March 16-20, 2026	Spring Break Week
March 27, 2026	Last Day to Drop "W" for 15-Week Session
March 30, 2026	Registration Begins 26/SU & 26/FA (All Students)
April 10, 2026	Last Day to Drop "W" for 12-Week Session
April 27, 2026	Final Exams Begin (15- and 12-Week Sessions)
May 1, 2026	End of Semester for 15- and 12-Week Sessions (Classes may continue beyond this date as scheduled, e.g., Saturday classes)
May 4, 2026	All Final Grades Due by 10 a.m. (15- and 12-Week Sessions)
SUMMER 2026	**26/SU Semester**
March 30, 2026	Registration Begins 26/SU & 26/FA (All Students)
April 11, 2026	Payment Deadline for 15-Week Session
April 1, 2026	Payment Deadline for 12-Week Session
May 8, 2026	Summer Registration Ends (15-Week Session)
May 11, 2026	First Class Day for 15-Week Session
May 25, 2026	Student and Staff Holiday

May 26, 2026	Official Census Date (12th Class Day) for 15-Week Session
May 28, 2026	Summer Registration Ends (12-Week Session)
June 1, 2026	First Class Day for 12-Week Session
June 11, 2026	Official Census Date (9th Class Day) for 12-Week Session
June 19, 2026	Student and Staff Holiday
July 2, 2026	Mid-Term Grades Due for 15-Week Session
July 3, 2026	Staff & Student Holiday
July 24, 2026	Last Day to Drop with "W" for 15- and 12-Week Sessions
August 17, 2026	Final Exams Begin (12-Week Session)
August 18, 2026	Final Exams Begin (15-Week Session)
August 21, 2026	End of Semester for 15- and 12-Week Sessions (Classes may continue beyond this date as scheduled, e.g Saturday classes.)
August 24, 2026	All Final Grades Due by 10 a.m. (15- and 12-Week Sessions)

Note: Information applies to a 15-week semester for Fall, Spring and Summer. Contact the Executive Registrar for mini or flex sessions.

*Evening and weekend classes on or around holidays may be rescheduled or canceled at the request of the college and approval of the Vice Chancellor.

Mid-term dates and Last Day to Drop with a "W" will vary depending on the length of the class/section. Verify class information with the instructor for courses with start and end dates that differ from the calendar listed above.

- Official Day is 11th class day for Fall and Spring semesters and 12th class day for Summer semester.
- Refund Schedule will be 14th day for 70%, 19th day for 25%.
- Prorate payment due date to 19th day.

03. About the College

01. 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.

The 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 coursework, 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 the 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.

02. Vision & Values

Vision

Texas State Technical College is 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, our 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.

03. History of 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, Gov. 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 Texas Panhandle 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, 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 11 locations in Abilene, Breckenridge, Brownwood, East Williamson County, Fort Bend County, Harlingen, Marshall, New Braunfels, North Texas, Sweetwater and Waco. 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 a student-centered philosophy.

TSTC believes in people and their desire to be responsible and productive citizens. TSTC believes that 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 that all people should be provided with the educational opportunity to learn the skills necessary to perform meaningful work and pursue their goals as responsible citizens contributing to the welfare and success of their families, communities, state, nation and world.

04. Locations

From north to south and everywhere in between, we have a campus that's just right for you. With state-of-the-art technology training and the skills to lead you to your next career, TSTC has a location to fit your needs.

With 11 locations throughout Texas, TSTC is where you are. In addition, programs and customized training are offered at partnership centers throughout the state. Come see for yourself.

Campus Locations

Abilene East

2082 Quantum Loop
Abilene, TX 79602

Abilene Downtown

650 E. Highway 80
Abilene, TX 79601

Breckenridge

415 N. Breckenridge
Breckenridge, TX 76424

Brownwood

301 Main St.
Brownwood, TX 76801

East Williamson County

1600 Innovation Blvd (CR 108)
Hutto, TX 78634

Fort Bend County

26706 Southwest Freeway
Rosenberg, TX 77471

Harlingen

1902 N. Loop 499

Harlingen, TX 78550

Marshall

2650 East End Blvd., South
Marshall, TX 75672

New Braunfels

TSTC & FAME Center

2189 FM758

New Braunfels, TX 78130

North Texas

119 North Lowrance
Red Oak, TX 75154

Sweetwater

300 Homer K. Taylor Drive
Sweetwater, TX 79556

Waco

3801 Campus Drive

Waco, TX 76705

05. Governance and Accreditation

Governance

Texas State Technical College (TSTC) is governed by a nine-member Board of Regents (BOR) and operates under the leadership of the Chancellor and Chief Executive Officer, whom the board appoints. Board members are appointed by the governor to six-year staggered terms and are confirmed by the state 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

Gail Lawrence

Deputy Chancellor

Jonathan Hoekstra

Executive Vice Chancellor & Chief Operating Officer

Rick Herrera

Senior Vice Chancellor & Chief Campus Expansion Officer

Michael Bettersworth

Senior Vice Chancellor & Chief Marketing Officer

Chad Wooten

Vice Chancellor & Chief Financial Officer

Pamela Mayfield

Vice Chancellor & Chief Human Resources Officer

Cledia Hernandez

Vice Chancellor & Chief External Relations Officer

Kevin Semien

Vice Chancellor & Chief Campus Services Officer

Dale Bundy

Vice Chancellor & Chief Information Officer

TSTC Board of Regents

Ron Widup, Chair

Robb Misso, Vice Chair

Dr. Tiffany Tremont, Ex Officio

Keith Honey

Lizzy de la Garza Putegnat

Kathy Stewart

Curtis Cleveland

Ron Rohrbacher

Eric Beckman

Accreditation

Texas State Technical College (TSTC) is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate degrees. TSTC also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of TSTC may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling 404-679-4500, or by using information available on SACSCOC's website, (www.sacscoc.org).

As an institutional accreditor, SACSCOC affirms the accreditation of an institution as a whole. The procedure for filing a complaint against the College is detailed on SACSCOC's Complaints 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 also a member of the American Association of Collegiate Registrars and Admissions Officers.

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

Accreditation Review Council on Education in Surgical Technology and Surgical Assisting in collaboration with Commission on Accreditation of Allied Health Education Programs (CAAHEP)

- Surgical Technology

Committee on Accreditation for Emergency Medical Services (EMS) Professions in collaboration with Commission on Accreditation of Allied Health Education Programs (CAAHEP)

- Paramedic

Automotive Service Excellence Education Foundation

- Auto Collision & Management Technology (excludes Tesla ATC specialization program)
- Automotive Technology (excludes Tesla ATC specialization program)

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)

- Aircraft Airframe Technology
- Aircraft Powerplant Technology
- Aircraft Pilot Training

The following programs are endorsed and/or recognized by the:

North American Process Technology Alliance

- Process Operations

Texas Skills Standards Board

- Biomedical Equipment Technology
- Cybersecurity
- Electrical Lineworker Technology
- Process Operations
- Wind Energy Technology

The following program is designated by the:

National Security Agency (NSA) as a National Center of Academic Excellence in Cyber Defense (NCAE-DC)

- Cybersecurity

06. Equal Opportunity Statement

It is the policy of Texas State Technical College (TSTC) that the College afford equal employment opportunities to all applicants, admissions applicants, employees, student workers, work-study employees and TSTC students without regard to race, color, religion, gender, national origin, age, genetic information, disability, sexual orientation, sexual preference, veteran status or any other basis that violates any applicable federal, state, or local law.

TSTC is committed to building and maintaining a learning/working environment that reflects a wide range of perspectives and enhances opportunities for all, including all qualified individuals with disabilities. As part of this commitment, policies and procedures shall ensure that individuals with disabilities are not subjected to discrimination or denied full and equal access to programs or services offered by TSTC. TSTC shall afford reasonable accommodations upon self-disclosing to the designated offices/personnel (in accordance with Title 45 Code of Federal Regulations Part 84, the regulation implementing Section 504 of the Rehabilitation Act of 1973). We invite employees with disabilities that require reasonable accommodations to contact the TSTC Human Resources office. Students with disabilities that require reasonable accommodations can contact the TSTC Access and Learning Accommodations office.

07. Instructional Philosophy

TSTC is committed to training students for tomorrow's careers, helping to strengthen the economic competitiveness of Texas while improving the lives of its people. With a philosophy rooted in "learning by thinking and doing," TSTC ensures its curriculum remains relevant by continuously seeking and fostering input from industry partners. This approach prepares students with the technical knowledge, skills and abilities they need to thrive in their chosen careers. Our faculty bring real-world expertise to their teaching, and our state-of-the-art facilities and equipment provide students with significant hands-on learning opportunities.

08. The TSTC Foundation

The TSTC Foundation supports all of TSTC's campus locations, its students, career programs, faculty and staff. Its purpose is to support the critical needs of students through scholarships, emergency aid, tools and equipment and to provide funds to enhance TSTC's ability to provide new and emerging technical programs to support the Texas workforce. This support is used to help improve student success, strengthen the technology in labs and provide flexibility to the priorities of the college to support the state's growing workforce demands. The TSTC Foundation is a 501(c)3 not-for-profit organization for the sole benefit of TSTC and its students.

09. Industry Advisory Committees

Industry Advisory Committee members guide curriculum creation and development by advising TSTC on the latest skills, knowledge and abilities that industry expects from its employees. Effective industry advisory committees create and maintain partnerships between TSTC and the industries and communities it serves. It is the dialogue between advisory committee members and TSTC that provides valuable, real-world input into the workplace that students will enter. This partnership fosters a shared responsibility for preparing students for a place in today's workforce and society.

04. Student Recruitment

01. Student Recruitment

Campus Tours

Whether you're a prospective student, an applicant, a family member or friend, Texas State Technical College welcomes you to tour a campus near you and the program of choice prior to enrolling.

To schedule a tour visit: events.tstc.edu

05. Enrollment Information

01. Eligibility Requirements

General 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 is afforded within TSTC to all applicants for admission without regard to race, color, religion, gender, national origin, age, genetic information, disability, or veteran status." TSTC complies with Texas Education Code (TEC) §51.3525 "Responsibility of Governing Boards Regarding Diversity, Equity, and Inclusion Initiatives." To assist TSTC students, the requirements of and penalties for violating TEC §51.3525 are further elaborated and detailed in the DEI Prohibition Statement found on the TSTC Regulatory Signage Page. Students who disagree with the decision may submit a written appeal to the Student Rights and Responsibilities Office.

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 Transfe**r - 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 high 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 Certificate of High School Equivalency (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.

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 "Criminal History 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. 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.

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. Submit official transcripts for any college or university previously attended, GED score report, 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.

Texas State Technical College complies with 20 U.S.C. 1091c and other state guidelines for the readmission of service members called or ordered to active duty. Military service members (whether voluntary or involuntary) called to serve on active duty in the Armed Forces, including service by members of the National Guard or Reserve, for a period of more than 30 consecutive days under a call or order to active duty of more than 30 days are entitled to promptly be readmitted with the same academic status to Texas State Technical College if:

- The cumulative length of absences from instruction by reason of active duty service does not exceed five years.
- The student (or an appropriate officer of the Armed Forces or official of the Department of Defense) gives advance written or verbal notice of such service to the registrar's office. The service member submits a notification of intent to reenroll at TSTC, no additional documentation or application will be needed; simply email registrars@tstc.edu with your semester of enrollment. Service members or reservists who experience an interruption or break in enrollment due to service requirements will be readmitted to the institution and the academic program they were enrolled in prior to the required service.

Note: Students with a program of study that is no longer available or in a teach-out plan will be advised on the closest available program.

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.

02. 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:
  i. Courses taken previously cannot be used to fulfill new prerequisite requirements.
  ii. Courses taken previously cannot be counted toward a new degree.
  iii. 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.

03. Registration for Classes

After the enrollment requirements and/or students are chosen for programs with selective admissions criteria, students may register for credit classes. Consult with your enrollment coach or faculty advisor to review the TSTC course schedule for more information on these classes. Registration for Workforce Training and Continuing Education programs are different from those described in this section. Contact the Accelerated Training Solutions 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 can be made in Workday or at the Enrollment Center. Some changes require additional documentation, as outlined below. All changes are processed immediately upon receipt.

- Name changes can be submitted through Workday or at 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.
- A Social Security number can be submitted at the Enrollment Center or directly in Workday. The request must be accompanied by an original Social Security card and photo ID identification as documentation.

04. Restricted Admission Programs

The following programs at TSTC have additional application requirements, such as additional immunizations, occupational licenses (HB1508), exams, criminal background checks, drug screenings and prerequisite courses. Visit the program website for more information.

- [Aircraft Pilot Training Technology](#)
- [Auto Collision & Management Technology - Tesla specialization program](#)
- [Automotive Technology - Chrysler & Tesla specialization programs](#)
- [Biomedical Equipment Technology](#)
- [Chemical Dependency Counseling](#)
- [Dental Hygiene](#)
- [Emergency Medical Services](#)
- [Health Information Technology](#)
- [Industrial Systems - Advanced Manufacturing Technology (FAME only)](#)
- [Diesel Equipment Technology - John Deere](#)
- [LVN to RN Transition Nursing Program](#)
- [Vocational Nursing](#)
- [Surgical Technology](#)

05. Dual Credit Courses

The TSTC Dual Credit 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 credit students are to abide by the rules and regulations set forth in this catalog and Student Handbook. For more information, visit the [Dual Credit website](#) website or contact the Dual Credit Office by phone at 254-867-3089 or by email at [dual.enrollment@tstc.edu](#).

06. Veteran Services

Veteran Services will serve as a centralized point of contact to assist active duty members, veterans and their family members navigate college resources to ensure a successful college experience. The Veteran Services staff serve as advocates for student veterans and act as liaisons between the student and other college offices, community resources and the Department of Veteran Affairs for education benefit questions.

The following services are provided by Veteran Services:

- Application support for FAFSA, admissions, Hazlewood and GI Bill®
- College policies and procedures support
- Veteran benefits information and assistance
- 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

Veterans Guide For Success

Step 1:

Apply for admissions and complete the required admissions process

Veterans are recommended to check their residency status with the Enrollment Center.

If Texas is your home of record and you have been discharged within 12 months, please submit a copy of your DD214 (member 4) to the Enrollment Center.

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 22-1900 for veterans using Veteran Readiness and Employment, Chapter 31.
- 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 (COE) letter from the Veterans Administration department in 30 days. Please submit a copy of your COE to the Veteran Services office.

Information about the Texas Hazlewood Tuition Exemption is available at tvc.texas.gov/education/hazlewood/ for all categories. Application and supporting documentation are provided by students to the Veteran Services team for processing.

Step 3:

Submit all required documentation

Veterans are required to submit the following documentation to the Veteran Services Department:

1. Certificate of Eligibility (COE)
2. DD Form 214 (Member 4) or (Service 2) showing the characterization of the discharge
3. Valid driver's license or state issued ID
4. Send to school your 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 (submit to the Enrollment Center or enrollment coach)

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

1. Certificate of Eligibility (COE)
2. DD Form 214 (Member 4) or (Service 2) showing the characterization of the discharge (Chapter 33 Transfer of Entitlement is exempt if the veteran is still on active duty)
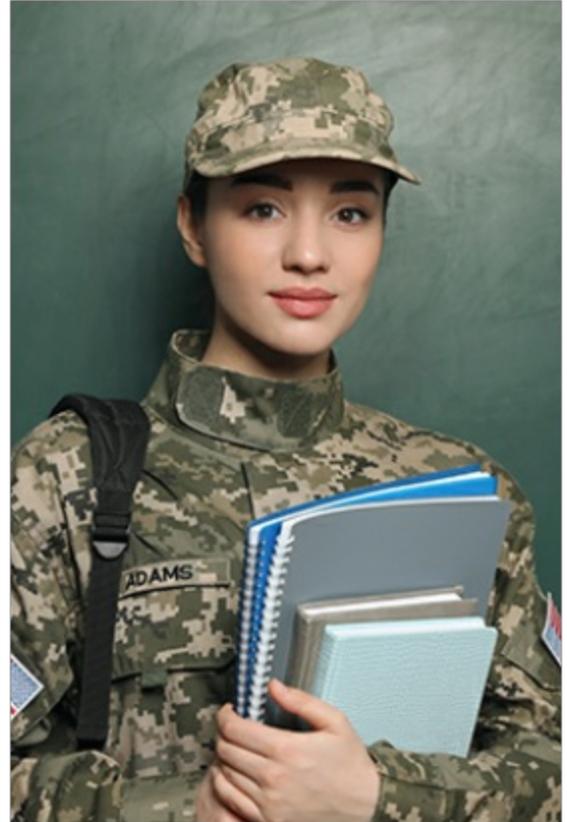
3. Valid state ID
4. University/college transcripts (submit to school via Office of the Registrar, the Admissions Advisor or Enrollment Coach)

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]().

For information on veteran benefits, visit the Paying for College section.

Contact Information

Phone: 888-878-2003

Email: veteranservices@tstc.edu

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 ([tvc.texas.gov/education/hazlewood/]()) 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) requiring students to meet the Financial Aid Standards of Academic Progress for certain waivers and exemptions such as the Hazlewood Tuition Exemption. These standards are outlined under the TSTC Satisfactory Academic Progress (SAP policy for Financial Aid).
- 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.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at [www.benefits.va.gov/gibill]().

Other Benefits

TSTC does accept other military related education benefits such as:

- Department of Defense (DoD) Tuition Assistance (TA) - interact with your branch educational service office or tuition assistance website
- Texas State Tuition Assistance ([tmd.texas.gov/state-tuition-assistance-program]())
- MYCAA ([https://mycaa.militaryonesource.mil/mycaa/]())

07. 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 reading, writing and mathematics. 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, visit the TSI Testing and Exemptions webpage.

TSI Advisement

Students who do not meet TSI standards must meet with the identified enrollment coaches at each campus. Enrollment coaches work with students to establish an individualized plan for Academic Success. This plan is developed for individual students according to their specific needs 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. An individualized plan may include provisions for students to retake the TSIA2, subject to availability. For more information, please visit the Enrollment Center.

TSI College Readiness Standards

The following information provides the minimum passing scores on the TSI Assessment (TSIA) taken Aug. 26, 2013, to Jan. 10, 2021, that are valid for five years from the date of test.

Reading: 351 or higher

Writing: Essay score of 5 or higher; or essay score of 4 and multiple-choice score of 340 or higher

Math: 350 or higher

The following information provides the minimum passing scores on the TSI Assessment 2.0 (TSIA2) taken Jan. 11, 2021, or after, which are valid for five years from the date of test.

ELAR: Essay score of 5 or higher and multiple-choice score of 945 or higher; or essay score of 5 or higher and multiple-choice score 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 is administered at the Testing Center. Check with the Testing Center for specific dates and times at each campus. The TSIA2 is computer-based and can only be offered in a paper format for those with documented disabilities. To arrange a disability accommodation, please contact Access and Learning Accommodations at adarequest@tstc.edu at least two weeks before your test date. Late requests will be considered but cannot be guaranteed.

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 review. For more information, please visit the Enrollment Center.

06. Paying for College

01. Tuition & 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 that 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.

Residency Classifications

Texas Resident: You have established a legal domicile in and have lived in Texas for the past 12 months.

Nonresident: You are a U.S. citizen who has not lived in Texas for the past 12 months.

Bundled Pricing

Bundled Pricing Option

Bundled Pricing is an optional form of payment where select new associate degree students can spread the cost of tuition, books, tools and supplies across the five semesters of their program.The sum cost of the program tuition, books, tools and supplies is divided evenly between the designated number of semesters it takes to finish the program.

To be eligible for bundled pricing, a student must be a brand new student to TSTC with no previous college credits who plans to pursue an associate degree in either: Automotive, HVAC, Business Management or Advanced Manufacturing beginning in the Fall 2024 semester. A student must also be classified as a state resident to be eligible. Students who are transferring from other institutions or have previous college credits are not eligible for bundled pricing.

Terms of Bundled Pricing

A student must have continuous enrollment from the start of the degree until completion to continue in Bundled Pricing. In the event that a student drops below full time hours, experiences a break in enrollment, changes to another degree type, changes to another major, withdraws from the college or falls into either academic or financial aid suspension, then the student forfeits the benefit of the Bundled Pricing program. The student will then incur charges of any remaining tuition as outlined by TSTC, plus the remaining cost of all tools and supplies. After a student has signed the Bundled Pricing agreement, made payment arrangements and picked up their tools and supplies, they are locked into Bundled Pricing. A student can opt into Bundled Pricing until the first day of class. For more details on the terms and conditions, see form TSTC-0-ES-122.

Aircraft Pilot Training: Airplane Fees

The following are program fees in addition to tuition.

Redbird/Simulator Fees:
Private Pilot

$200: Unlimited time.

Instrument Pilot

$200: Unlimited time.

Intermediate Flight

$200: Unlimited time.

Commercial Flight

$200: Unlimited time.

Certified Flight Instructor Airplane OR Multi-Engine Flight

$200: Unlimited time.

Total Airplane Course Simulator Fees: $1,000

Airplane (Fixed-Wing Rates):
C-172 Solo

$121 per hour.
Fuel surcharge is $42 per hour.

PA28R Solo

$154 per hour.

Fuel surcharge is $42 per hour.

PA44-180 Solo

$192 per hour.

Fuel surcharge is $84 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) + 10 percent. Pre- and post-flight review is instructor and student time only; it is not flight time.

Note: FAA examiner fees for practical flight exams are typically $800 and 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 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 that 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 student's OneTSTC 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 drop request through Workday 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 enroll in a payment plan, please log in to Workday on your computer using your TSTC OneID username and password by visiting login.tstc.edu. Click on the touchnet - Touchnet Student Payments tile to log in to Touchnet. Please click on "Payment Plans" to enroll in a new payment plan. To make a payment, please click on "Make Payment." You can also review your account information through this page. Please see cashiers if you need assistance or if paying with cash. You can also use the Workday app on your Android smartphone/tablet or iPhone/iPad. If you're viewing this site from one of those devices, click the appropriate app store button to download the Workday app onto your device.

Past-Due Accounts

A student with a past-due unpaid balance is considered delinquent. A delinquent student may not register for subsequent terms or add classes in the current term. A delinquent account may be turned over to a collection agency, potentially affecting a student's personal credit rating. A student with a delinquent account is 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 that 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).

02. Traditional Course Tuition Table

Notice: The charges listed may change if the TSTC Board of Regents approves necessary updates during the academic year. During your last semester of your program you are allowed to add an additional program of study, if you plan to continue your education. During that semester you will billed for your primary program of study.

For information on bundling pricing, see the Tuition & Fees section of the catalog.

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

Tuition Table Effective Fall 2025

Texas Resident Students - Tier 1
Programs: Advanced Manufacturing Technology, Aircraft Airframe, Aircraft Powerplant Technology, Associate Degree in Nursing (ADN), Dental Hygiene, Diesel Equipment Technology, Electrical Lineworker Technology, Emergency Medical Services, Instrumentation Technology, Surgical Technology, Vocational Nursing, Welding Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$25	$282	$307
2	$50	$564	$614
3	$75	$846	$921
4	$100	$1,128	$1,228
5	$125	$1,410	$1,535
6	$150	$1,692	$1,842
7	$175	$1,974	$2,149
8	$200	$2,256	$2,456
9	$225	$2,538	$2,763
10	$250	$2,820	$3,070
11	$275	$3,102	$3,377
12	$300	$3,384	$3,684
13	$325	$3,666	$3,991
14	$350	$3,948	$4,298
15	$375	$4,230	$4,605

Texas Resident Students - Tier 2

Programs: Automation and Control, Biomedical Equipment Technology, Building Construction Technology, Culinary Arts, Cybersecurity, Electrical Power and Controls, Electromechanical Technology, Industrial Systems-Electrical, Industrial Systems-Mechanical, Mechatronics, Medical Imaging Systems Technology, Precision Machining, Process Operations,

Robotics, Wind Energy Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$25	$245	$270
2	$50	$490	$540
3	$75	$735	$810
4	$100	$980	$1,080
5	$125	$1,225	$1,350
6	$150	$1,470	$1,620
7	$175	$1,715	$1,890
8	$200	$1,960	$2,160
9	$225	$2,205	$2,430
10	$250	$2,450	$2,700
11	$275	$2,695	$2,970
12	$300	$2,940	$3,240
13	$325	$3,185	$3,510
14	$350	$3,430	$3,780
15	$375	$3,675	$4,050

Texas Resident Students - Tier 3

Programs: Aircraft Pilot Training, Architectural/Civil Drafting Technology, Architectural Design & Engineering Graphics, Auto Collision and Management, Automotive Technology, Avionics, Business Management, Chemical Dependency Counseling, Computer Networking & Systems Administration, Electrical Construction, Energy Efficiency Specialist, Engineering Graphics and Design Technology, HVAC Technology, Medical Office Specialist, Occupational Safety and Environmental Compliance, Plumbing & Pipefitting, Solar Energy

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$25	$207	$232
2	$50	$414	$464
3	$75	$621	$696
4	$100	$828	$928
5	$125	$1,035	$1,160
6	$150	$1,242	$1,392
7	$175	$1,449	$1,624
8	$200	$1,656	$1,856
9	$225	$1,863	$2,088
10	$250	$2,070	$2,320
11	$275	$2,277	$2,552
12	$300	$2,484	$2,784
13	$325	$2,691	$3,016
14	$350	$2,898	$3,248
15	$375	$3,105	$3,480

Texas Resident Students - Tier 4

Programs: Academic Core, Biology, Computer Programming, Computer Science, Digital Media and Design, Education Training, Engineering, Health Information Technology, Mathematics, Physics, Pre-Allied Health, Web Design and Development

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$25	$169	$194
2	$50	$338	$388
3	$75	$507	$582
4	$100	$676	$776
5	$125	$845	$970
6	$150	$1,014	$1,164
7	$175	$1,183	$1,358
8	$200	$1,352	$1,552
9	$225	$1,521	$1,746
10	$250	$1,690	$1,940
11	$275	$1,859	$2,134
12	$300	$2,028	$2,328
13	$325	$2,197	$2,522
14	$350	$2,366	$2,716
15	$375	$2,535	$2,910

Nonresident Students - Tier 1

Programs: Advanced Manufacturing Technology, Aircraft Airframe, Aircraft Powerplant Technology, Associate Degree in Nursing (ADN), Dental Hygiene, Diesel Equipment Technology, Electrical Lineworker Technology, Emergency Medical Services, Instrumentation Technology, Surgical Technology, Vocational Nursing, Welding Technology

,

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$179	$282	$461
2	$358	$564	$922
3	$537	$846	$1,383
4	$716	$1,128	$1,844
5	$895	$1,410	$2,305
6	$1,074	$1,692	$2,766
7	$1,253	$1,974	$3,227
8	$1,432	$2,256	$3,688
9	$1,611	$2,538	$4,149
10	$1,790	$2,820	$4,610
11	$1,969	$3,102	$5,071
12	$2,148	$3,384	$5,532
13	$2,327	$3,666	$5,993
14	$2,506	$3,948	$6,454
15	$2,685	$4,230	$6,915

Nonresident Students - Tier 2

Programs: Automation and Control, Biomedical Equipment Technology, Building Construction Technology, Culinary Arts, Cybersecurity, Electrical Power and Controls, Electromechanical Technology, Industrial Systems-Electrical, Industrial Systems-Mechanical, Mechatronics, Medical Imaging Systems Technology, Precision Machining, Process Operations, Robotics, Wind Energy Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$179	$245	$424
2	$358	$490	$848
3	$537	$735	$1,272
4	$716	$980	$1,696
5	$895	$1,225	$2,120
6	$1,074	$1,470	$2,544
7	$1,253	$1,715	$2,968
8	$1,432	$1,960	$3,392
9	$1,611	$2,205	$3,816
10	$1,790	$2,450	$4,240
11	$1,969	$2,695	$4,664
12	$2,148	$2,940	$5,088
13	$2,327	$3,185	$5,512
14	$2,506	$3,430	$5,936
15	$2,685	$3,675	$6,360

Nonresident Students - Tier 3

Programs: Aircraft Pilot Training, Architectural/Civil Drafting Technology, Architectural Design & Engineering Graphics, Auto Collision and Management, Automotive Technology, Avionics, Business Management, Chemical Dependency Counseling, Computer Networking & Systems Administration, Electrical Construction, Energy Efficiency Specialist, Engineering Graphics and Design Technology, HVAC Technology, Medical Office Specialist, Occupational Safety and Environmental Compliance, Plumbing & Pipefitting, Solar Energy

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$179	$207	$386
2	$358	$414	$772
3	$537	$621	$1,158
4	$716	$828	$1,544
5	$895	$1,035	$1,930
6	$1,074	$1,242	$2,316
7	$1,253	$1,449	$2,702
8	$1,432	$1,656	$3,088
9	$1,611	$1,863	$3,474
10	$1,790	$2,070	$3,860
11	$1,969	$2,277	$4,246
12	$2,148	$2,484	$4,632
13	$2,327	$2,691	$5,018
14	$2,506	$2,898	$5,404
15	$2,685	$3,105	$5,790

Nonresident Students - Tier 4

Programs: Academic Core, Biology, Computer Programming, Computer Science, Digital Media and Design, Education Training, Engineering, Health Information Technology, Mathematics, Physics, Pre-Allied Health, Web Design and Development

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$179	$169	$348
2	$358	$338	$696
3	$537	$507	$1,044
4	$716	$676	$1,392
5	$895	$845	$1,740
6	$1,074	$1,014	$2,088
7	$1,253	$1,183	$2,436
8	$1,432	$1,352	$2,784
9	$1,611	$1,521	$3,132
10	$1,790	$1,690	$3,480
11	$1,870	$1,859	$3,729
12	$2,148	$2,028	$4,176
13	$2,327	$2,197	$4,524
14	$2,506	$2,366	$4,872
15	$2,685	$2,535	$5,220

03. Performance-Based Education (PBE) Tuition Table

Tuition Table Effective Fall 2025

Notice: The charges listed may change if the TSTC Board approves necessary updates during the academic year. Part-time students enrolled in subscription-based programs (6 hours) will pay at half the rate listed below. Additional semester credit hours (up to 12 hours) will be charged at the incremental semester credit hour rate. During the last semester of your program you are allowed to add an additional program of study, if you plan to continue your education. During that semester, you will be billed for your primary program of study.

For information on bundling pricing, see the Tuition & Fees section of the catalog.

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

Texas Resident Students - Tier 1

Programs: Diesel Equipment Technology, Electrical Lineworker & Management Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$25	$282	$307
2	$50	$564	$614
3	$75	$846	$921
4	$100	$1,128	$1,228
5	$125	$1,410	$1,535
6	$150	$1,692	$1,842
7	$175	$1,974	$2,419
8	$200	$2,256	$2,456
9	$225	$2,538	$2,763
10	$250	$2,820	$3,070
11	$275	$3,102	$3,337
12	$300	$3,384	$3,684
13	$300	$3,384	$3,684
14	$300	$3,384	$3,684
15	$300	$3,384	$3,684

Texas Resident Students - Tier 2

Programs: Cybersecurity, Precision Machining

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$25	$245	$270
2	$50	$490	$540
3	$75	$735	$810
4	$100	$980	$1,080
5	$125	$1,225	$1,350
6	$150	$1,470	$1,620
7	$175	$1,715	$1,890
8	$200	$1,960	$2,160
9	$225	$2,205	$2,430
10	$250	$2,450	$2,700
11	$275	$2,695	$2,970
12	$300	$2,940	$3,240
13	$300	$2,940	$3,240
14	$300	$2,940	$3,240
15	$300	$2,940	$3,240

Texas Resident Students - Tier 3

Programs: Architectural/Civil Drafting Technology, Architectural Design & Engineering Graphics, Auto Collision and Management Technology, Automotive Technology, Business Management Technology, Chemical Dependency Counseling, Computer Networking & Systems, HVAC Technology, Occupational Safety and Environmental Compliance

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$25	$207	$232
2	$50	$414	$464
3	$75	$621	$696
4	$100	$828	$928
5	$125	$1,035	$1,160
6	$150	$1,242	$1,392
7	$175	$1,449	$1,624
8	$200	$1,656	$1,856
9	$225	$1,863	$2,088
10	$250	$2,070	$2,320
11	$275	$2,277	$2,552
12	$300	$2,484	$2,784
13	$300	$2,484	$2,784
14	$300	$2,484	$2,784
15	$300	$2,484	$2,784

Texas Resident Students - Tier 4

Programs: General Academic, Biology, Chemistry, Computer Programming, Computer Science, Digital Media and Design, Economics, Education Training, Engineering, English, Health Information Technology, Mathematics, Physics, Web Design & Development

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$25	$169	$194
2	$50	$338	$388
3	$75	$507	$582
4	$100	$676	$776
5	$125	$845	$970
6	$150	$1,014	$1,164
7	$175	$1,183	$1,358
8	$200	$1,352	$1,552
9	$225	$1,521	$1,746
10	$250	$1,690	$1,940
11	$275	$1,859	$2,134
12	$300	$2,028	$2,328
13	$300	$2,028	$2,328
14	$300	$2,028	$2,328
15	$300	$2,028	$2,328

Nonresident Students - Tier 1

Programs: Diesel Equipment Technology, Electrical Lineworker & Management Technology

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$179	$282	$461
2	$358	$564	$922
3	$537	$846	$1,383
4	$716	$1,128	$1,844
5	$895	$1,410	$2,305
6	$1,074	$1,692	$2,766
7	$1,253	$1,974	$3,227
8	$1,432	$2,256	$3,688
9	$1,611	$2,538	$4,149
10	$1,790	$2,820	$4,610
11	$1,969	$3,102	$5,071
12	$2,148	$3,384	$5,532
13	$2,148	$3,384	$5,532
14	$2,148	$3,384	$5,532
15	$2,148	$3,384	$5,532

Nonresident Students - Tier 2

Programs: Cybersecurity, Precision Machining

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$179	$245	$424
2	$358	$490	$848
3	$537	$735	$1,272
4	$716	$980	$1,696
5	$895	$1,225	$2,120
6	$1,074	$1,470	$2,544
7	$1,253	$1,715	$2,698
8	$1,432	$1,960	$3,392
9	$1,611	$2,205	$3,816
10	$1,790	$2,450	$4,240
11	$1,969	$2,695	$4,664
12	$2,148	$2,940	$5,088
13	$2,148	$2,940	$5,088
14	$2,148	$2,940	$5,088
15	$2,148	$2,940	$5,088

Nonresident Students - Tier 3

Programs: Architectural/Civil Drafting Technology, Architectural Design & Engineering Graphics, Auto Collision and Management Technology, Automotive Technology, Business Management Technology, Chemical Dependency Counseling, Computer Networking & Systems, HVAC Technology, Occupational Safety and Environmental Compliance

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$179	$207	$386
2	$358	$414	$772
3	$537	$621	$1,158
4	$716	$828	$1,544
5	$895	$1,035	$1,930
6	$1,074	$1,242	$2,316
7	$1,253	$1,449	$2,702
8	$1,432	$1,656	$3,088
9	$1,611	$1,863	$3,474
10	$1,790	$2,070	$3,860
11	$1,969	$2,277	$4,246
12	$2,148	$2,484	$4,632
13	$2,148	$2,484	$4,632
14	$2,148	$2,484	$4,632
15	$2,148	$2,484	$4,632

Nonresident Students - Tier 4

Programs: General Academic, Biology, Chemistry, Computer Programming, Computer Science, Digital Media and Design, Economics, Education Training, Engineering, English, Health Information Technology, Mathematics, Physics, Web Design & Development

Credit Hours	Tuition	Designated Tuition	TOTAL
1	$179	$169	$348
2	$358	$338	$696
3	$537	$507	$1,044
4	$716	$676	$1,392
5	$895	$845	$1,740
6	$1,074	$1,014	$2,088
7	$1,253	$1,183	$2,436
8	$1,432	$1,352	$2,784
9	$1,611	$1,521	$3,132
10	$1,790	$1,690	$3,480
11	$1,969	$1,859	$3,828
12	$2,148	$2,028	$4,176
13	$2,148	$2,028	$4,176
14	$2,148	$2,028	$4,176
15	$2,148	$2,028	$4,176

04. Bundled Pricing

Bundled Pricing is an optional form of payment where select new associate degree students can spread the cost of tuition, books, tools and supplies across the five semesters of their program.The sum cost of the program tuition, books, tools and supplies is divided evenly between the designated number of semesters it takes to finish the program.

For more information, please see the Tuition and Fees page.

Program	Credit Hours	Cost of Tuition	Cost of Supplies	TOTAL Cost of Tuition & Supplies	Price Per Semester
Automotive Technology	60	$13,920	$4,128	$18,048	$4,500
HVAC Technology	60	$13,920	$4,050	$17,970	$3,500
Business Management Technology	60	$13,920	$1,356	$15,276	$2,500
Advanced Manufacturing Technology	60	$1,8420	$3,078	$2,1498	$3,500

05. Fees

Student fees are determined by a variety of factors. Not all of these fees apply to Workforce Training & Continuing Education programs. Contact Student Accounting for more information.

Fees for Fall 2025 are as follows:

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.

External Certification of Specialty

Cost of exam.

Accident Insurance

Students may purchase accident insurance through Student Accounting (cashiers). Coverage is available per academic year through the census date of the student's class(es). Please see the cashiers for rates.

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

$100

Moving Violation

$40

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.

06. Waivers and Exemptions

This section describes 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

Students who are the highest-ranking graduate of their high school class (Valedictorian).

Contact: Student Accounting

High school graduates who received TANF (Temporary Assistance for Needy Families) benefits while in high school.

Contact: Student Accounting

Children of POWs and MIAs as certified by the U.S. Department of Defense.

Contact: Veteran Services

Children of Disabled Firefighters or Peace Officers as certified by the Texas Higher Education Coordinating Board.

Contact: 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.

Contact: Student Accounting/Access and Learning Accommodations

Students in foster or other residential care as certified by the Texas Department of Protective and Regulatory Services.

Contact: 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

High school students enrolled in class sections for dual high school and college credit may have state and designated tuition waived or reduced.

Contact: Dual Credit

Hazlewood Tuition Exemption for Veterans and their dependents (Hazlewood)

Contact: 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.

Contact: Enrollment Center

Senior citizens 65 years of age or older may audit courses without payment of state and designated tuition.

Contact: Student Accounting

TSTC employees, their spouses and/or dependents receive a waiver of designated tuition.

Contact: 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.

Contact: Enrollment Center

Waivers & Exemptions for Nonresidents

Military personnel stationed in Texas and their spouses and children.

Contact: 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.

Contact: Veteran Services

Veteran Access, Choice and Accountability Act of 2014 ("Choice Act") Section 702.

Contact: Veteran Services

Colonel John M. McHugh Tuition Fairness for Survivors Act of 2021 (SB1095) for individuals who are entitled to Survivors' and Dependents' Education Assistance Program (Chapter 35).

Contact: Veteran Services

Individuals employed at least half time as teachers or professors at Texas institutions of higher education and their spouses and children.

Contact: 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.

Contact: Student Accounting

Students who receive a competitive scholarship of at least $1,000.

Contact: 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.

Contact: Enrollment Center

Students from Mexico or Canada enrolled through a Texas Higher Education Coordinating Board approved Exchange Program.

Contact: Student Accounting

Students from Mexico who demonstrate financial need.

Contact: Student Accounting

Nonimmigrant aliens residing in Texas in accordance with NATO treaties and their spouses and children.
Contact: Student Accounting

Students who reside not more than 100 miles from the boundary of Texas with another state.

Contact: Student Accounting

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

07. 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:

- 1/3 prior to published deadlines plus the $25 installment plan fee.
- 1/3 prior to the sixth class week.
- 1/3 prior to the eleventh class week.

Twelve-Week Summer Term:

- 1/3 prior to published deadlines plus the $25 installment plan fee.
- 1/3 prior to the fifth class week.
- 1/3 prior to the ninth class week.

Less Than Twelve-Week Term:

- 1/2 prior to published deadlines plus the $25 installment plan fee.
- Remainder 1/2 before the class week prior to the halfway point of the term.

A student who elects to pay in installments will:

1. Pay a $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.
6. And, be responsible for payment of any remaining balance upon withdrawal from the College.

08. 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.

09. Housing Fees

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 website for information regarding room and board.

10. 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.

11. 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 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% Refund	Last Class Day for 25% 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. Federal Supplemental Educational Opportunity Grant (FSEOG) for which a return of funds is required.
4. 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 sellable 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.

12. Financial Aid

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 (Federal or State), payment for part-time employment (Federal or State Work-Study), Federal Direct Loan, scholarship(s) or a combination 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.

TSTC's philosophy is to provide financial assistance to students who would otherwise be unable to pursue a postsecondary education.

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

13. Types of Financial Aid

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

Federal Pell Grant: This federal aid program is usually offered to students who display exceptional financial need and who have not earned a bachelor's, graduate or professional degree. It is intended to be the base of a student's financial aid offer. 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%) of Pell Grant funds, which is referred to as Lifetime Eligibility Used. You may not receive Federal Pell Grant funds from more than one school at a time.

Federal Supplemental Educational Opportunity Grant (FSEOG): This federal aid program helps college students who have exceptional need, be a U.S. citizen or eligible noncitizen, have a valid Social Security number, maintain satisfactory academic progress and are registered with Selective Service, unless exempt. 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 to Texas residents, non-residents or foreign students. Eligibility is based on a student's financial need. In addition to having unmet needs, a student must be registered for Selective Service, unless exempt. To be considered for this grant, you **must** complete a Student Eligibility form.

Texas Educational Opportunity Grant (TEOG): The purpose of the program is to provide grant aid to students who are enrolled in two-year community colleges, public technical college or public state colleges in Texas. Have a Student Aid Index not greater than the amount determined by the Texas Higher Education Coordinating Board. Students 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 and have not already earned an associate or baccalaureate degree. TEOG recipients **must** complete a Student Eligibility Form. TEOG funds are limited and are offered to students on a first-come, first-served basis.

Federal and State Work-Study Program: The Federal College Work-Study Program provides part-time jobs for students

with financial need allowing them to earn money to help pay education expenses. The program encourages community service work and work related to the student's course of study. 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.

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 must complete the Free Application for Federal Student Aid (FAFSA) and must apply online for specific jobs through the Student Workday page.

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 and drug screening are required for all Work-Study positions. Some positions (depending on position and location of hire) may require a fingerprint 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 considered eligible for a loan, students must first complete the Free Application for Federal Student Aid (FAFSA). 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 at Federal Student Aid - Loans and Grants.

Private Loans: Private loans are made by private organizations such as banks, credit unions and state-based or state-affiliated organizations, and have terms and conditions that are set by the lender. Private student loans are generally more expensive than federal student loans. For a comparison of the different type of loans see Federal loans vs Private loans.

To be eligible for a loan, students must have a current Free Application for Federal Student Aid (FAFSA) on file, must be enrolled for six credit hours, not be on financial aid suspension or in default and must meet any other current eligibility requirements. The student will need to meet satisfactory academic progress guidelines.

TSTC candidates for graduation who have borrowed a direct loan are required to complete a loan exit counseling session at https://studentaid.gov. This should be done before graduation.

NOTE: Financial aid offers may be adjusted accordingly if a student has a sponsorship, scholarship and/or a waiver to prevent an overaward, which occurs when a student receives financial aid that exceeds their demonstrated financial need or the total cost of attendance.

14. Applying for Financial Aid

Financial Aid Philosophy & Purpose

The Financial Aid Office has developed a philosophy of offering aid to accomplish several objectives given the resources available.

These objectives are:

- To meet the needs of as many students as possible.
- To offer each student a combination of funds including a certain amount of self-help (loan or employment.)
- To spend the total amount of funds available during the academic period.
- To limit the amount borrowed by students to a reasonable level.

Purpose of financial aid

The primary purpose of financial aid is to provide assistance to students for expenses related to educational needs. The primary responsibility for meeting college costs lies with students and parents. Federal, state and institutional programs are available for students who meet eligibility requirements.

Financial aid is offered 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.

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

Priority Deadlines
Fall Term: May 1
Spring Term: Oct. 1
Summer Term: March 1

All applications are processed on a first-come, first-served basis. Late applications may not have funds available 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 will be attending TSTC.
- For the fall 2025, spring 2026 and summer 2026 semesters, complete the 2025-2026 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.
- Must have a high school diploma or a GED.
- 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 ninth 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 ninth 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.
- Your eligibility for federal and state student aid can be affected by incarceration and/or the type of conviction you have.

Note to prospective students, students and parents of students: All loan information will be submitted to the National Student Loan Data System (NSLDS) and will be accessible by guarantee agencies, lenders and institutions determined to be authorized users of the data system.

Additional requirements for state financial aid

In order to be considered for state financial aid, students need to 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. Also, students MUST complete the Statement of Student Eligibility to be considered for State financial aid.

Note: When the student is reported as not attending class prior to census, the student's financial aid eligibility may be affected. Financial aid is based on full-time enrollment and will be reduced when students register for less than 12 credit hours.

Determination of offers

TSTC attempts to meet the educational financial needs of students. Financial need is determined by subtracting the student's student aid index (SAI), as determined by FAFSA, from the total estimated cost of attendance, or COA. Educational Financial Need = COA - SAI. Students are offered 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 all student's financial aid expectations, but it will try to meet the direct educational needs. Students are responsible for notifying the financial aid office about any additional resources provided to them.

Note: The Federal Pell Grant is initially granted based on full-time enrollment status. Adjustments are made based on a student's actual hours of enrollment. TSTC uses the student's latest census date for all classes enrolled within the term as the official lock date for the term. Adjustments will be made to the Pell Grant if classes are dropped before that date. Other grants, loans and scholarships may be canceled if the student is enrolled for one to five credits.

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

Dependent students will be assumed to live with parents.

Independent students will be assumed to live off campus.

Students will have the opportunity to change their housing status if the assumption is incorrect.

- 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, if approved by Human Resources.

How to apply

In order to apply for financial aid, you need to complete the FAFSA. For information on how to complete the FAFSA and what information you need to have before you begin, please visit Filling out the FAFSA.

If you have any problems in completing the FAFSA, contact the Federal Student Aid Information Center at 1-800-433-3243 or TTY: 1-800-730-8913.

- Complete the admissions process, submit required transcripts and officially declare a major at the TSTC Enrollment Center. Undeclared majors are not eligible for financial aid.
- Pre-register according to college registration dates and guidelines. Please keep in mind that financial aid will only cover courses that are within your degree plan.

Next steps:

Once your financial aid eligibility has been determined, you will receive an offer letter by email. After you register your financial aid will be credited to your student account before the start of classes. The amount of financial aid grants that you are offered may not be enough to cover all of your charges. Be sure to review your billing statement. Additional steps will be required if you have never received a student loan at TSTC and wish to receive one now. For example, loans must be accepted and need promissory notes and entrance counseling. Contact the enrollment center for more information and assistance.

You may also find the estimated cost of attendance on the website Payment Information.

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 federal and/or state financial aid, such as assistance from the 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 offered Federal Pell Grant for more than one school for the same period of time.
- Stop attending classes without officially dropping or withdrawing.
- Fail to notify TSTC about aid offered at other institutions.
- Default on a student loan.
- Owe overpayment of grants.

Change in circumstances

Financial aid offers 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 a special circumstances evaluation.

You can request a special circumstance review through your student Workday home page using the menu option - finances; then financial aid; and FA special circumstances. After review, any additional documentation will be requested as needed.

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 Oct. 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. If you need to submit any documents, you will receive a notification that has the form(s) along with the link so that you can upload them. 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 offers.

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

15. Standards of Academic Progress (SAP)

Maintaining Eligibility for Financial Aid

Texas State Technical College (TSTC) Standards of Academic Progress (SAP) are adopted to determine continuing eligibility for students who are receiving or applying for financial aid. Students who receive financial aid must have a declared major and be enrolled in an eligible degree or certificate program. TSTC evaluates all parts of the Standards of Academic Progress at the end of each term of enrollment. 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. A student who fails to meet the standard of progress (SAP) will receive correspondence in their Workday notifications which will direct them to an appeal form in their task inbox. https://www.calculator.net/gpa-calculator.html.

Students are required to maintain satisfactory academic progress (SAP). These standards will be used to determine eligibility for all Federal Title IV aid, as well as state and institutional aid, and certain waivers and exemptions offered by the state of Texas. Some aid programs such as the TEOG (Texas Educational Opportunity Grant) require higher standards, such as a higher grade point average (GPA) and/or a higher completion rate.

Minimum Cumulative Grade Point Average (GPA)

You must complete your classes with at least a 2.00 cumulative GPA based on all terms of enrollment. This is also known as qualitative progress. All college-level and developmental courses will be evaluated at the end of each term. Transfer courses are not counted towards the GPA evaluation.

Minimum Cumulative Completion Rate

You must complete at least 67% (66.5%) of the cumulative credit hours in which you enroll. This is known as quantitative progress. All college-level and developmental courses will be evaluated at the end of each term. 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. Any transfer hours that are accepted from other colleges and applied toward the completion of your program are counted in the cumulative completion rate.

Maximum Timeframe to Complete a Program

You must complete your program in 150% of the minimum hours required to complete your program. For example, if your degree program requires 60 credit hours for completion, you must complete that program within a maximum of 90 attempted credit hours. Once you reach the 150% limit or the Financial Aid Office 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. These variables include but are not limited to:

- Credits attempted for all periods of enrollment are evaluated 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 of a term. 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. Developmental courses are not counted in this calculation.
- Any transfer hours that are accepted from other colleges and applied toward the completion of your program are counted in the maximum time frame. Transcripts from all colleges previously attended must be submitted before any financial aid is 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.
- A student may receive aid when repeating a course that was previously unsuccessful regardless of the number of times the course was attempted and failed.
- Once a course has been successfully completed, a student can retake and receive financial aid for that same course only one additional time (one retake attempt).
- Separate rules apply for developmental courses.

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 request forms may be submitted to the enrollment coach or in Workday where the student will have the ability to submit online via their portal. The Registrar's Office 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

Changing programs will not change a student's current status. The student's maximum time frame will be re-evaluated and only those credits that are included in the new program will be considered.

Treatment of Developmental Courses

Enrollment in developmental courses is indicated by testing or as recommended by an enrollment coach/advisor. You may receive financial aid for a maximum of 27 attempted hours. These courses will be included in determining the cumulative GPA and cumulative completion rate, but will not be counted in determining the maximum time frame. Once you have attempted 27 credit hours of developmental classes, you will not be able to receive additional financial aid to pay for those courses.

Important Reminders

- A student may receive aid when repeating a course that was previously unsuccessful regardless of the number of times the course was attempted and failed.
- Once a course has been successfully completed, a student can retake and receive financial aid for that same course

only one additional time (one retake attempt).
- Financial aid will not pay for:
  - Courses that are not in your degree plan, unless there is documentation from the program explaining why the course is needed.
  - Courses taken by audit.
  - Continuing education courses.
  - Courses for which you enroll after the census date of the class or for which you begin attendance after the official census date of the course unless approved due to unusual circumstances.
  - Credits exceeding the 27 maximum credits for developmental courses.
  - Credit hours earned by placement tests.
  - Credit hours in excess of the 150% maximum time frame limit.
  - Courses taken without declaring a major in an 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 minimum 2.0 cumulative GPA and/or the cumulative completion rate of 67%, the student will be placed on financial aid warning. The only exception is for exceeding maximum timeframe hours, which results in immediate suspension. Students on "warning" status may receive financial aid without completing an appeal.

Financial Aid Suspension (Failed Status)

Students can be placed on financial aid suspension for several reasons:

- Failing to meet the 2.0 cumulative GPA and/or the 67% completion rate during the warning period.
- Reaching the maximum time frame for the program of study which is calculated by multiplying the number of hours in the program by 1.5.
- A student who filed an appeal and was placed on an academic plan or on probation and who failed to meet the conditions of the appeal.

Reinstatement of Financial Aid Eligibility

If you are on financial aid suspension you may have your aid reinstated in one of the following manners:

- Continue to attend Texas State Technical College without financial aid until you achieve both a cumulative GPA of 2.0 and a cumulative completion rate of 67%.
  - It may require multiple terms for students with an extremely low GPA and/or completion rate to regain financial aid eligibility.
- File a Satisfactory Academic Progress Appeal demonstrating mitigating circumstances and be approved.
- The maximum time frame limit is when you have attempted 150% of the credits needed to complete your program at TSTC. This limit could also be reached if you're returning for an additional associate degree/certificate. At this point, you are no longer eligible for financial aid. There is no warning prior to a student reaching this status.
- 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 an appeal is granted.

Appeal Process

Students who are placed on failed status due to financial aid suspension or maximum timeframe may file an appeal based on mitigating circumstances. All appeals must be completed online and may not be submitted unless they include supporting documentation. Once you are notified of not being eligible due to not making satisfactory academic progress, you have five working days to submit an appeal or up to the subsequent semester census date, whichever comes first. 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 de-registration. 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 must require supporting documentation regarding your mitigating circumstance, such as medical statements or death certificates, or other supporting documentation. Appeals for mitigating circumstances cannot be submitted without documentation. 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 team lead of enrollment, whose decision is final.

An appeal must include the following:

- A completed Satisfactory Academic Progress Appeal Form.
- 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.

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 the 2.0 term GPA and or 67% term completion rate will result in suspension from aid. The conditions of the appeal may require a higher term GPA and/or completion rate at the discretion of the Enrollment Coach.

Probation

A student will be placed on probation if we determine that he or she should be able to reach both the 2.0 cumulative GPA and 67% cumulative completion rate requirements at the end of the next term of enrollment. If the student fails to meet 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 conditions of the appeal may require a higher term GPA and/or completion rate at the discretion of the enrollment coach. 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.

16. Managing Student Debt

Texas State Technical College (TSTC) is committed to supporting students in managing student debt and developing financial literacy skills. To assist students facing challenges with student loan payments or understanding repayment options, TSTC partners with Wright International Student Services (WISS). Students can contact WISS toll-free at (800) 257-4757 or visit www.wiss.info for assistance.

Research indicates that high debt levels can impact student enrollment, retention and graduation. To help students build financial stability, TSTC offers additional resources through the Advocacy Resource Center, where students can meet with coaches for financial planning and budgeting support.

Students are also encouraged to explorewww.financialliteracy101.org/financial-literacy to learn about financial planning, saving, and investing.

17. 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 tvc.texas.gov/education/hazlewood/ 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 team.

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.

Check In Status

Veterans/dependents reported as not checking into their courses will have their enrollment certification interrupted and may impact the student's VA education benefits. Over payment due to not checking into their courses is the veteran's responsibility, and money may be owed to TSTC and/or Department of Veterans Affairs.

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 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 Workday.

Pending Payment Compliance

In accordance with Title 38 US Code 3679(e), Texas State Technical College adopts the following additional provisions for any student using U.S. Department of Veterans Affairs (VA) Post-9/11 G.I. Bill® (Ch. 33) or Veteran Readiness & 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 provide to Veteran Services team:

- Proof of entitlement for VA education benefit by the first day of class - for example a VA Certificate of Eligibility (COE)
- A written request to utilize that entitlement
- Additional information needed to properly certify the enrollment as described in other institutional policies.

18. Textbooks and Supplies

The Campus Store

TSTC Campus Stores offer a wide variety of books, tools and supplies you need for your classes and labs. You can visit our stores in Fort Bend, Harlingen, Marshall, Sweetwater and Waco, or shop online through our Campus Stores for everything you need.

07. First Steps at TSTC

01. 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 enrollment coaches to assist with TSI advisement.

New Student Advising

During the admissions process, an Enrollment Center staff member acts as a guide for new students to make sure that all admissions requirements are met. All new students are encouraged to contact an admissions advisor to begin the advising process prior to or upon completing the admissions requirements. If you know your Admissions Advisor's or Enrollment Coach's name, you can schedule an appointment with them directly by visiting https://tstc.appointment451.sites.451.io/. If you are looking for general information or not sure whom you need to speak with, you can submit a Request for Information form directly from the TSTC website at https://www.tstc.edu/contact-us/.

Enrollment Center

Current/Returning Student Advising
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, academic appeals, financial aid appeals and monitoring progress toward graduation.

The Enrollment Center staff works on a caseload management basis with students from application through graduation.

You can schedule an appointment with your Enrollment Coach directly by visiting https://tstc.appointment451.sites.451.io/.

Program Advisors

Program Advisors serve as an additional resource for students in Performance-Based Education (PBE) programs. Program Advisors help promote student success by assisting students as they progress through their program and course competencies. They help students stay on track to meet their academic goals, connecting them with appropriate interventions, including strategies in study habits, time management and other academic resources. Program Advisors also help answer any questions about the PBE program in general, and connect students with other support services to facilitate progress and successful completion of their program at TSTC.

02. Testing Center

Testing Centers offer testing services to help students persist in their education. Additionally, we encourage our communities to use our services to support their educational and career goals. Testing Centers adhere to the National College Testing Association (NCTA) Professional Standards and Guidelines to maintain the integrity of our institution.

Hours of Operation

8 a.m.-5 p.m., Monday through Friday

Please contact a Testing Center near you for test dates and times. Hours are subject to change and appointments are required. Walk-ins may be accommodated depending on seat availability and office hours.

Maintaining Academic Integrity

Continuous monitoring through video surveillance, walk-throughs and observation windows during testing acts as a deterrent against acts of misconduct or academic dishonesty. This proactive approach ensures that students are aware of the consequences of cheating, promoting a fair and honest testing environment. For information on the Testing Center policies, visit the Testing Center webpage.

Testing Accommodations

For disability accommodations, please contact the Access and Learning Accommodations (ALA) Office at adarequest@tstc.edu at least one week before the test date. Late requests will be considered, but cannot be guaranteed.

Academic Testing

Accommodated Exams: Accommodated exams are for enrolled students needing to take TSTC course exams at the Testing Center based on their testing accommodations. Testing accommodations are in effect only after the student has completed the accommodations process through the Access and Learning Accommodations (ALA) Office.

Proctored Exams: Some courses may require students to take proctored exams at the Testing Center. Proctored exams at the Testing Center ensure academic integrity by implementing security measures to prevent cheating.

Placement Testing

Texas Success Initiative (TSI) Assessment 2.0: The TSI Assessment 2.0 is designed to help higher education institutions determine if students are ready for college-level coursework in the general areas of reading, writing and mathematics. Enrollment Coaches play a crucial role in guiding students on whether they need to take the TSI Assessment 2.0. Before students take the assessment, they must participate in a mandatory Pre-Assessment Activity (PAA) unless already completed. The PAA aims to prepare students for the assessment by providing practice test questions.

College Level Examination Program (CLEP): The CLEP exam allows students to move ahead in their coursework based on what they already know. The exam covers diverse subjects like business, science, history, languages and literature. Veteran students can use G.I. Bill funds to cover CLEP exams and administration fees. TSTC awards course credit for CLEP subject exams, providing the minimum score has been obtained on the specific subject. TSTC does not award credit for the CLEP General Exams. CLEP scores are valid for 10 years from the test date. For more information, see ES 2.10 Credit Award for Assessments and Training.

Additional Testing

The Testing Centers provide a variety of exams, including allied health and nursing admission exams like ATI TEAS and HESI. The centers also offer professional certification and licensing exams such as aviation, computer networking, surgical instrument specialist and phlebotomy technician. It's important to note that not all tests are available at every Testing Center, so students should confirm the availability of their specific exam beforehand to ensure a smooth testing experience. For a complete list of exams, please visit the Testing Center webpage.

03. New Student Orientation

After the registration process, students receive information on the New Student Orientation (NSO) schedule for in-person sections or an online option. New Student Orientation is a great way to begin your TSTC journey. You will be introduced to campus resources and learn how to get involved with campus activities. For NSO details click here.

04. First Year Seminar Course (HIRE 1100)

HIRE 1100: Foundations for Career Success (one credit hour) prepares students for workplace success by covering essential professional skills, including job readiness, resume writing, interviewing, soft skills, job search strategies, networking and career planning. All students will be enrolled, and successful completion of the course is required for TSTC's Money Back Guarantee program.

05. 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, certificate or occupational skills award (in limited number of programs.)

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.

How to Connect with ARC

For more information on services provided to nontraditional students, please consult the Advocacy & Resource Center (ARC) by emailing cultureofcaring@tstc.edu or visiting our Google site. Here you can find ARC staff contact information, campus ARC locations and the request for support form. Students at all TSTC locations and TSTC Connect students can connect with an ARC staff member by contacting us.

06. Student Identification Cards

All college-credit students are required to obtain TSTC identification (ID) cards when they register. ID cards are optional for dual credit students and 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, accessing library resources, to gain entrance into labs or as requested by authorized officials. Misuse of ID cards may result in disciplinary action.

08. Scholastic Information

01. Academic Integrity

TSTC expects all students to engage in scholastic pursuits in 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, 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. While TSTC recognizes the benefits of technological advancements in supporting student success, students are expected to use these tools responsibly and ethically. Plagiarism includes the use of artificial intelligence (AI) not as a research or learning aid but as a means to generate work that should originate from the student. This applies to assignments or courses where AI use is restricted or prohibited by the instructor.

Collusion means unauthorized collaboration with another person in preparing a written work offered for credit.

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

02. Credentials

TSTC offers programs of study leading to stackable credentials. Students may earn an Occupational Skills Award (OSA), Level 1 Certificates, Level 2 Certificates, Core Curriculum Completer institutional certificate (CCC), Associate of Applied Science degrees (AAS), Associate of Science (AS) degrees, and/or Advanced Technical Certificates (ATC). High school students who attend participating partnering high schools, may participate and complete dual credit pathways while enrolled in high school. All programs are approved by the Texas Higher Education Coordinating Board.

Associate of Science (AS) Degree programs are designed specifically for students who reside in the Rio Grande Valley and are planning to pursue a bachelor's degree in the areas of biology, computer science, engineering, mathematics and/or physics. Programs may include the institution's approved academic core curriculum and prerequisites for a seamless transition into a baccalaureate program. Associate degree programs must incorporate TSTC's approved core curriculum unless an exemption exists. Graduates of these programs will receive an Associate of Science degree. TSTC Harlingen participates in the Texas Common Course Numbering System (TCCNS) to facilitate transfer work for freshman and sophomore level general academic coursework. [AS curriculum contains 60 Semester Credit Hours.]

Associate of Applied Science (AAS) Degree programs are designed to train technicians who work with professionals. The AAS is awarded for technical programs of study. These programs prepare technicians who are in demand in today's industry to work on a level between engineers and skilled craftsmen. 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 an Associate of Applied Science degree. [AAS curriculum contains 60 semester credit hours, other than Dental Hygiene AAS 68 semester credit hours.]

Advanced Technical Certificate (ATC) programs are comprised of 16-45 semester credit hours. A student must have an associate degree, baccalaureate degree or junior status in a baccalaureate degree program.

Certificate of Completion awards are offered for skill development programs. These programs are designed to produce the skilled workers needed by modern industry. Skill programs emphasize laboratory and shop experience rather than theory. Certificate programs teach students specific skills for entry-level careers. All graduates of certificate programs show that 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.

Certificate 3 Enhanced Skills Certificate is an optional certificate associated with an AAS degree program that is intended to provide advanced training skills, identified by business and industry, which are not part of the AAS degree. It is comprised of a minimum of 6 semester credit hours and a maximum of 12 semester credit hours.

Certificate 2 programs are comprised of a minimum of 30 semester credit hours and a maximum of 51 semester credit hours.

Certificate 1 programs are comprised of at least 15 semester credit hours and a maximum of 42 semester credit hours.

Core Curriculum Completer Certificate is awarded upon satisfactory completion of all elements and courses in the TSTC approved 42 semester credit hours Core Curriculum.

Occupational Skills Award (OSA) is a sequence of courses that meet the minimum standard for a program length specified by the Texas Workforce Commission for the Federal Workforce Innovation and Opportunity Act (WIOA) program. These short-term, skills-focused courses provide students with the basic technical skills needed to start an entry-level career. OSA awards consist of 9-14 semester credit hours for credit courses and 144-359 contact hours for workforce continuing education courses.

03. 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 enrollment coach 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 situation 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 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 and all graduation requirements have been met. Any appropriate course substitution and/or transfer credit authorizations must be on file. The minimum grade point average (GPA) must also be met. Although advisors are available to assist, students are responsible for keeping track of their progress toward meeting program requirements. Contact the Enrollment Coach for assistance.

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.

04. Change of Major

A student may change majors only between terms or prior to the 11th class day of a 15-week semester, the fifth class day of a 12-week semester, the fourth class day of a 10-week semester, or the fourth class day of a 6-week session. Students who wish to change programs should meet with an Enrollment Coach. 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. Submit an electronic request via the college's Student Information System to Add a program of study by accessing "Academics" on the profile overview page and click the button "Add Program of Study." To change a program of study the student will need to click on the "Request" button. A questionnaire will need to be completed with additional information on location and effective date. Please note changes will require review and approval by the Enrollment Coach.
2. Changes in program may be completed via a change of major form, including obtaining all required signatures and return the completed form to the Enrollment Coach for processing.
3. Students may be required to meet additional admission criteria for the new program/major.

05. 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 for an Occupations Skills Award, certificate of completion and/or Associate of Applied Science degree. TSTC also offers Associate of Science degrees at the Harlingen location only.

06. 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 may register for up to 18 credits with the approval of the Senior Manager for Campus Enrollment. Enrollment for more than 18 credits requires approval of the appropriate department designee.

07. 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.

08. 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.

Note: This minimum grade requirement may vary for some TSTC health-related programs.

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 Points
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, except during critical extenuating circumstances, in which case more than six hours of Pass/Fail may be applied and additional course offerings may be available for Pass/Fail grading. The grade of "P" should only be applied to developmental or Technical WECM courses.	NC
IP	In Progress (For use when a student has not had sufficient time to complete the course due to the registration date, 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
NP	No Pass (Represents a grade of "Unsatisfactory" and may be 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 effect on student's GPA.)	NC

NC: Not Calculated

Performance-Based Education (PBE) Grading Standards

Technical Courses:

Grade	Interpretation	Grade Points
A	Excellent/Superior Performance Level	4
B	Above Required Performance Level	3
F	Failure to Meet Performance Requirements	0
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
U	Unsatisfactory (For use in Continuing Education courses and programs.)	NC
NE	The grade of NE represents a grade of "No Credit Earned." The grade of "NE" is non-punitive and is not calculated in grade-point averages. Grade of "NE" can be assigned to a student who enrolls in performance-based courses that is over the 12.00 SCH (full-time status) in one term and who has not had sufficient time to complete the course due to the registration date.	NC
NA	The grade of "NA" represents a grade of "Not Applicable." The grade of "NA" is non-punitive and is not calculated in grade-point averages. A grade of "NA" may be used for a midterm grade in a scheduled PBE course in which a student has not yet reached the midpoint of the course.	NC

NC: Not Calculated

Academic, Developmental Education and First Year Seminar Courses:

Grade	Interpretation	Grade Points
A	Excellent/Superior Performance Level	4
B	Above Required Performance Level	3
C	Minimum Required Performance Level	2
F	Failure to Meet Performance Requirements	0
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

NC: Not Calculated

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

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 their Student Information System portal. Students should review the grade reports for accuracy. All requests for review or correction must be submitted to the 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 coursework 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 or submitted via the Student Information System, noting the reason for the grade change and signed by the student's instructor, appropriate department designee and the Office of the Registrar.
- Upon receipt of the completed and signed grade change form or request via Workday, the Office of the Registrar makes the official change to a student's transcript record.
- If submitted via paper form, a copy of the change of grade form is placed in the student's permanent file for audit purposes.

09. 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 that 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.

10. 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 or term grade point average is below 2.00 at the end of an enrollment period is placed on scholastic probation. 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 encouraged to meet with a program advisor or enrollment coach prior to registration to discuss options to improve the grade point average.

Scholastic Suspension

A student on scholastic probation whose Standards of Progress term GPA and cumulative GPA are still below a 2.00 will 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 the Retention Services representative. A student who is granted a waiver or re-enters the College after having been suspended shall be placed on scholastic probation.

11. Scholastic Honors

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 as part of the "Vice Chancellor's Honor Roll" with the notation of "Scholastic Excellence" on the student's academic record.

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 Chancellor's Honor Roll on the student's academic record.

In addition, students may be recognized on the TSTC website, see Honor Recognition Awards.

Graduation Scholastic Honors

Graduation honors will be awarded to students who graduate with an Associate Degree, Applied Associate Degree or Certificate of Completion (credit based) 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.

12. 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 online 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 other holds that prevent the release of transcripts.

13. 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 Statewide Operating Standard (SOS) ES 4.15 - Repeat Courses and GPA Calculation.

09. Graduation and Commencement

01. 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 the college provided the degree, certificate, technical 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.

Students who have an interruption or break in their enrollment at TSTC and return later to complete their program of study will be required to update the program of study regardless of modality. Program requirements in effect at the time of re-enrollment will apply.

Exception to this requirement may be approved in extenuating circumstances by the Associate Vice Chancellor for Instructional Alignment & Innovation.

02. Graduation Procedures

The registrar or their 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 coursework is satisfactorily completed.
2. At least 25% 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 Office of the Registrar 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 Associate Vice Chancellor for Instructional Alignment & Innovation or a 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.
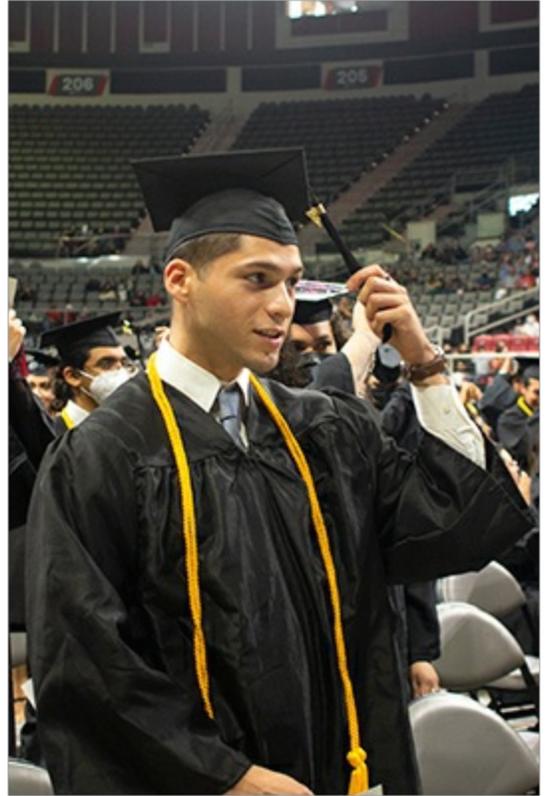
Note: Settlement of all financial obligations to TSTC must be made prior to graduation. If any business is pending with TSTC by commencement, TSTC withholds the official TSTC transcript until clearance approval.

03. Graduation Honors

Students receiving an Associate Degree, Applied Associate Degree or Certificate of Completion (credit based) who earn Cumulative GPAs of 4.0 receive TSTC Board of Regents Honors.

Students receiving an Associate Degree, Applied Associate Degree or Certificate of Completion (credit based) who earn Cumulative GPAs of 3.50 to 3.99 receive Honors.

04. Commencement Ceremonies

Participation is voluntary; however, candidates for graduation are encouraged to celebrate their accomplishments by participating in a commencement ceremony. Students not planning to attend the commencement ceremony may pick up their diplomas, covers, cords and/or Board of Regent medallions at the Enrollment Center once certification of degrees has been completed. There is also an option to have their graduation items mailed to them at the address in the College's administrative database after certification.

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](#) prior to the ceremony.

05. Diploma Reprint Request

To request a reprint of a diploma, students must complete the diploma reorder form and submit for processing at registrars@tstc.edu. The diploma reorder form can be obtained through the Office of the Registrar.

06. Graduate Guarantee

If a graduate from a credit-bearing program 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 nine 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 Provost.
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 nine 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 nine semester credit hours of tuition-free education, as described above.

07. The TSTC Alumni Network

The TSTC Alumni Network serves and supports Texas State Technical College, its students, and alumni. Through the Alumni Network, students and alumni can connect with job opportunities (hireTSTC) and participate in job fairs. For more information on job search assistance for alumni, contact your campus Career Services representative.

10. Academic Planning

01. Areas of Study

With more than 40 programs in a wide range of industries, we've got the high-demand skills training for the career you want.

[Allied Health](#)

[Aviation](#)

[Computer & Information Technology](#)

[Construction & Maintenance](#)

[Engineering & Manufacturing](#)

[Environmental & Safety](#)

[Hospitality](#)

[Online Programs](#)

[Transportation](#)

02. Degree & Certificate Options

Associate of Science

The Associate of Science degree is specifically designed for the benefit of students transferring to a four-year university. TSTC offers this degree in the areas of biology, engineering, and physics.

Associate of Applied Science

Technical programs of study offered at TSTC award the Associate of Applied Science degree. These programs prepare technicians who are in demand in today's industry to work on a level between engineers and skilled craftsmen.

Certificates of Completion

Skill development programs offered at TSTC award certificates of completion. These programs are designed to teach students specific skills needed for entry-level jobs. This is accomplished through specialized training in the particular skills area.

Advanced Technical Certificate

An advanced technical certificate is generally designed for individuals who have already completed a two-year Associate of Applied Science degree and are seeking advanced, specialized preparation in a particular career to supplement their degree.

Occupational Skills Award

TSTC offers an occupational skills award. These short-term, skills-focused courses provide students with the basic technical skills needed to start an entry-level career.

Core Curriculum Completion Certificate

A core curriculum completion certificate is awarded to all students completing the TSTC general education core. The state of Texas guarantees acceptance by a public four-year university of any complete general education core transferred from any other Texas public college.

03. Money-Back Guarantee

MONEY-BACK GUARANTEE OVERVIEW:

The Texas State Technical College (TSTC) Money-Back Guarantee (MBG) program exemplifies TSTC's unwavering commitment to student success by ensuring graduates are well-prepared and equipped for industry. This program not only offers financial reassurance but also enhances the employability of our students through strategic support and skill development.

PROGRAM ELIGIBILITY:

All technical programs are included in the MBG program.

The MBG program excludes degrees focused on continued education (AS degrees, Academic Core Curriculum and Pre-Allied Health).

Eligible students are automatically enrolled in HIRE 1100. Satisfactory grade completion of HIRE 1100 determines eligibility for the Money Back Guarantee Program after graduation.

Contact a Career Advisor for more details.

04. Course Information

Developmental Education Courses

TSTC provides courses and learning activities designed to help students improve their reading, writing and math skills in order to prepare them for success in college-level courses. Developmental education courses are not counted as credit toward graduation, but rather are used along with credit courses for determining course load and satisfactory academic progress for financial aid.

General Education Courses

Associate of Applied Science (AAS) degree programs must contain a basic core of five 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. In addition, TSTC requires all AAS programs to include one course from the Communication/Writing component. General education core courses are specified within each associate degree plan.

Associate of Science (AS) degree programs must incorporate the college's approved academic CORE curriculum (see listing of general academic Core courses) unless an exemption exists. A list of exemptions defined by the Texas Higher Education Coordinating Board to offer specialized academic associate degrees is 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 effective 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

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 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 Department strives to deliver 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. The General Education Department seeks 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 in support of the technical programs of study. These college-level courses are in the areas of communications, human relations, mathematics, natural sciences, social and behavioral sciences, business and humanities. These related courses of study 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."

Provided is a list of general education courses by category, and minimum hours per category, that will satisfy the 15 semester hour basic core requirement for any TSTC AAS degree. These courses are taught by TSTC General Education Department and/or programs:

Humanities/Fine Arts: (choose 3 hrs.=one course)
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: (choose 3 hrs.=one course)

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: (choose 3 hrs.=one course)
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

Communication/Writing: (choose 3 hrs.=one course)

ENGL 1301 Composition I

ENGL 2311 Technical & Business Writing

General Education Electives: (choose 3 hrs.=one course. Choose a course that is not used to satisfy any of the above categories.)
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 with questions regarding transfer credit should contact the enrollment center and those with questions regarding special partnerships should contact the Educational Partnerships 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 elective, Behavioral/Social Science elective, Communication/Writing elective or General Education elective requirements should be addressed to the Director of Alignment for Academic Core/Designated AS Programs.

Academic Core Courses

The following is a list of General Education courses offered by TSTC General Education departments and/or programs used to satisfy the 42 semester hour Academic Core Curriculum Certificate (CCC) and the general education CORE component for AS degrees.

TSTC's Harlingen campus 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:
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

MATH 2312 Pre-Calculus Math (3 SCH version)

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.

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

CHEM 1105 Introductory Chemistry Laboratory I (Lab)

COSC 1301 Microcomputer Applications

COSC 1336 Programming Fundamentals I

COSC 1337 Programming Fundamentals II

COSC 2325 Computer Organization

COSC 2336 Programming Fundamentals III
ENGL 2307 Creative Writing
ENGR 1201 Introduction to Engineering
ENGR 1304 Engineering Graphics
ENGR 2301 Engineering Mechanics I - Statics
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
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 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% of the total credits required for the

student's declared program of study. At least 25% of the total credits in a TSTC student's certificate or AAS degree plan must be earned through regular SCH instruction at a TSTC campus 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 campus. 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.

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 at off-campus 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 director of alignment.

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. For additional information regarding AP exams, see ES 2.10 Credit Award for Assessment and Training.

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 director of alignment 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 campus 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 director of alignment and/or designated subject matter expert, 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 director of alignment and/or designated subject matter expert and submitted to the associate vice chancellor for Instructional Alignment & Innovation for approval.

Students with applicable skills and knowledge may also receive credit for technical courses in which proficiency is determined by comprehensive examination. These challenge exams are designed and written by qualified faculty and may be administered in the technical department or testing center. Students must pay a Challenge Exam testing fee prior to the test. The Challenge Exam testing fee will be approved by the Board of Regents (BOR) and will not be refundable regardless of the outcome of the assessment.

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.

Schedule Changes

The published academic calendar outlines the dates during which schedule changes may occur. Students may add or 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 that the course schedule change form is received by the Enrollment Center. Deadlines for course drops and withdrawals from the college are published in TSTC's 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 that 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% 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 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 director of alignment 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.

05. Flexible Program Options

Performance-Based Education (PBE)

Some programs of study are offered in a Performance-Based Education (PBE) format, TSTC's version of Competency-Based Education (CBE). In PBE technical programs, student success is dependent on mastery of course skills and competencies based on an A, B, or F grading scale. In Academic, General Education, and Development Education, student success is dependent on mastery of course skills and competencies based on a A, B, C, or F grading scale to allow for transfer grades. Some PBE programs are offered entirely online, while others are offered in the hybrid format, with lecture content online and in-person, scheduled, hands-on lab sessions. The self-guided characteristics of PBE instruction may allow students in certain programs to accelerate through a course and program.

Online Learning

Online courses and programs offer students the opportunity to complete coursework via the internet on personal computers. Each TSTC online program may have specific program requirements.

Depending on whether the online program is offered in a PBE or traditional format will determine whether students have the opportunity to work through course material in a self-guided manner with the opportunity to accelerate. Students who take online learning courses complete course requirements and communicate with instructors through the college's Learning Management System (LMS). Some online courses may require specific software or proctored exams. Please refer to course syllabi for this information. Virtual tutoring through TSTC's Office of Student Success is available for some online courses.

The Student Online Learning Orientation (SOLO) course is recommended for all students new to online instruction at TSTC. The course provides instructions on the college's LMS and strategies for succeeding in the online environment. Contact Instructional Design and Support for information on the SOLO course. 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 on available campuses 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.

06. Dual Credit

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

07. Accelerated Training Solutions

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 successfully completing 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. Customized training can be delivered at our training facilities, on-site at employer locations or online.
- Training for industrial start-up or expansion programs.
- Accelerated 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 an online or in-person registration form with basic demographic information. Students shall ensure they have received confirmation of enrollment, including course details and start dates. Some programs may require demonstrated skills, competencies, certifications or experience. Certain programs may require a background check, drug screening and a physical examination 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 an Accelerated Training Solutions 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 this catalog's Credit Award for Assessments and Training section for more information.

Class Records and Certificates for Clock Hour programs

Students completing CE courses receive one hour for every hour of participation in an Accelerating Training Solutions course or program.

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

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

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. For more information, refer to this catalog's Credit Award for Assessments and Training section.

Satisfactory Pursuit of Program

To successfully complete the program (if applicable), students must complete each course with at least a C or better. Students who do not have acceptable classroom attendance or fail to meet learning objectives and potentially do not meet the grade requirement may be removed from the program.

Good Standing = C or better.
Probation = less than C.
Suspension = 3rd attempt of the 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 a 100% refund.
   B. Students who voluntarily terminate their enrollment after the first day of class but before the third day of class will receive a 70% refund, and no credit will be issued for the course.
   C. Students who voluntarily terminate their enrollment after the third day of class will receive a 0% refund; no credit will be issued for the course.
   D. Students who are forcefully terminated due to attendance and/or other authorizations by the administration will not receive a refund or credit for the course.
   E. The institution reserves the right to cancel a continuing education course due to low enrollment, instructor unavailability or other unforeseen circumstances. In such cases, students will be notified promptly, and a full refund of tuition fees will be issued.

CE Attendance Policy

CE students must typically maintain a minimum of 90% attendance per course to maintain satisfactory progress unless a program's external governing agency requires otherwise. Such a modification will be listed in the course syllabus. Failure to meet attendance and participation expectations may result in dismissal from the program, and will not receive a refund or credit for the course.

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 Accelerated Training Solutions team at acceleratedtraining@tstc.edu.

08. College Readiness

College Readiness programs offer students the educational support needed to make the successful transition into college. These programs include Upward Bound, Upward Bound Math & Science, Educational Talent Search and a variety of other summer programs. All students who participate in any of these College Readiness programs are expected to adhere to the rules and regulations set forth in this Catalog/Handbook. Specific programs may have additional policies and rules by which participants must abide.

11. Student Services

01. Student Housing

The college considers housing an added service for its students.

Occupancy in student housing 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.

Visit tstc.edu/campus-housing to view housing options, photos and room layouts.

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, minus any appropriate cleaning fees or charges owed.

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 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. The 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 the return of all room keys. However, no refunds will be made during the last 30 schools days of the semester.

A portion of the housing deposit will be withheld to defray costs of unit/space cleaning and/or 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 & 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 Access & Learning Accommodations section to find contact information for these services.

02. Access and Learning Accommodations

Students with Disabilities

The 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). ALA provides reasonable accommodations to qualified students based on the documented needs of each student.

Students seeking accommodations or services should make contact with the ALA office in a timely manner to self-disclose and begin the interactive process with an ALA staff person. Students may be asked to provide supporting documentation from an individual qualified to diagnose the disclosed disability. Accommodations will be determined case-by-case based on the individual needs of the student. Self-disclosures are confidential; approved accommodations will be shared only with those who have an educational need to know.

In post-secondary education, qualified individuals with disabilities may be provided reasonable and appropriate accommodations to ensure equality in obtaining an education and an equal opportunity for full participation in programs and services, rights afforded by Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 (ADA), and the ADA Amendments Act of 2008 (ADAAA). Such reasonable accommodations do not include personal services, lack of preparation, or lack of time management skills.

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

To make contact with the ALA office, please email adarequest@tstc.edu or complete the Accommodations Request form online. An ALA Specialist will respond and support you through the next steps.

Service Animals

A **service animal** is typically a dog individually trained to do work or perform tasks for a person with a disability. Some examples of such work or tasks include guiding people who are blind, alerting people who are deaf, pulling a wheelchair, or 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.*

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 Americans with Disabilities Act (ADA). Individuals living in college housing will be permitted to have no more than one service or support animal. Under Titles II and III, a service animal handler does not need to provide certification for their service animal, nor are they required to register with the ALA office.

In all cases, the owner of the animal is responsible for the animal's behavior. If restraints, such as a leash or harness with a handle, interfere 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.

A **service animal in training** is typically a dog undergoing training by an approved trainer who is an agent of a reputable organization and competent to provide training for assistance animals and/or their handlers.

Service animals in training are allowed on campus if they are in active training by an approved trainer. The individual (trainer) may be asked to submit proof to the Access and Learning Accommodations Office that they are an approved trainer as required in Texas Human Resources Code Dec. 121.003.

For individuals participating in an internship off campus, ALA may serve as a liaison for the student and the entity's ADA designee regarding the requirements for service animals (or service animals in training) to enter their facility.

Public Etiquette Toward Service Animals

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 their service animal. Individuals found in violation of this may be subject to disciplinary action.

Emotional Support Animals (ESA)

An **emotional support animal (ESA)** is an animal that provides emotional support to a person with a physical or mental impairment that substantially limits at least one major life activity or bodily function. Typically, an ESA is recommended 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; the ESA is considered necessary to afford that person with a disability an equal opportunity to use and enjoy a dwelling when there is an identifiable relationship (nexus) between the person's disability and the assistance the animal provides.

Emotional support animals shall be allowed, as a reasonable accommodation, for qualified students with disabilities in accordance with the Fair Housing Act of 1988. Emotional support animals shall only be permitted to accompany the student within the student's assigned housing unit and on the college's grounds.

Process to Request an ESA

The Access and Learning Accommodations office manages accommodation requests for an emotional 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.)

To request approval for an ESA, the student with a disability must complete the following steps:

1. Complete the Request for Accommodations.
2. Submit supporting documentation to ALA via upload with the request for accommodations, email (adarequest@tstc.edu), or fax (254-777-6507). Supporting documentation for an individual's request for an ESA must come from a **licensed healthcare professional** with whom the student has an established professional relationship.

    a. Documentation should include a description of the student's limitations, as well as an explanation of the connection between the disability and the expected impact of the ESA.
    b. **Caution:** Some websites sell certificates and licensing documents. Based on guidance from the U.S. Department of Housing and Urban Development, one of the agencies that enforces the Fair Housing Act, such documentation from the internet is not, by itself, sufficient to reliably establish that an individual has a non-observable disability or disability-related need for an assistance animal. Therefore, ALA may request reliable documentation when an individual requesting a reasonable accommodation has a disability and the disability-related need for an accommodation is not obvious or otherwise known.

1. Schedule an intake meeting with an ALA Specialist.

ALA will review the ESA request and communicate the decision to the Housing Office. If approved, the Housing Office will collect additional information, including the animal's records and a Housing Agreement Form. If the request for an ESA is denied, the student may appeal the decision to the college ADA coordinator. The process for appeal can be found in SOS ES 3.26 Students with Disabilities.

NOTE: ESAs are prohibited from entry to the residence hall until official approval has been given from the ALA Office and the Student Housing Office. Please submit all necessary information with enough lead time to allow the offices to fully consider your request.

Rules for Emotional Support Animals

1. All animals must comply with the ordinances of the city where the student resides on campus, and will be considered for approval on a case-by-case basis.
    a. 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.
2. In all cases, the owner of the animal is responsible for the animal's behavior.
    a. 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.
    b. Animals on campus grounds must be secured to a leash, cord, chain or similar direct physical control of a maximum length of 6 feet, the other end of which is securely held by a person.
    c. Animals must not be tethered to a stationary fixture or tree when left unattended.
3. Individuals approved to have an ESA in their college housing will be permitted to have **no more than one Emotional Support Animal.**
4. The approved ESA is only permitted inside the student's assigned campus residence. The ESA is not allowed to accompany the student into any other public buildings on campus, including the dining area.
5. 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.
6. The college reserves the right to remove an emotional support animal if:
    a. It poses a direct threat to the safety of others or causes significant property damage;
    b. Its presence results in an undue burden or fundamental alteration of a college's program;
    c. The animal is left unattended for eight or more hours;
    d. It creates an unmanageable disturbance or interference with the college community; and/or
    e. The student does not comply with the conditions set forth by the Access and Learning Accommodations Office and the Student Housing Office.

Some people may have allergic reactions to animals that are substantial enough to qualify as disabilities. TSTC will consider the needs of an assigned roommate, suitemates or apartment mates in meeting its obligations to reasonably accommodate all disabilities and to resolve the problem as efficiently and expeditiously as possible.

In addition to the above mentioned, 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 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.

Animal Etiquette

To the extent possible, the handler should ensure that the animal does not sniff people, outdoor campus dining tables, or the personal belongings of others. Also, the animal should not display any behaviors that are disruptive to others. It is the handler's responsibility to ensure that the animal does not block a passageway for fire egress. Behavioral violations by the animal may result in disciplinary action of the student handler.

Waste Cleanup

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 the handler's responsibility to arrange for someone who is capable and explicitly willing to clean up after the animal. The person cleaning up after the animal should abide by the following guidelines:

1. Always carry equipment sufficient to clean up the animal's waste whenever the animal is on campus, and
2. 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 clean up after the animal.

Grievance Procedure for Disability or Access-Related Complaints

Primary responsibility for ensuring compliance with Section 504, the ADA, and 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 have a right to file a grievance if they believe they have been denied equal access in the form of appropriate accommodations, modifications, auxiliary aids, effective communication or have experienced discriminatory harassment as described in Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Americans with Disabilities Act Amendments Act of 2008, or the Fair Housing Act.

The TSTC procedure for the filing of student-related grievances alleging violations of the ADA, the ADAAA, and Section 504 is as follows:

1. The student shall submit a written complaint to the Office of Access and Learning Accommodations (adarequest@tstc.edu) or to the ADA/504 Coordinator (ADACoordinator@tstc.edu) as soon as the complainant becomes aware of the alleged violation, but no later than 10 working days after the alleged action occurred. The timeframe for submitting a written complaint may be reconsidered for good cause as determined by the Office of Access and Learning Accommodations or the ADA/504 Coordinator. 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 & Learning Accommodations or the ADA/504 Coordinator shall assist the student in the interactive process in an effort to clarify and resolve the issue. At times, the ALA office may consult with the ADA/504 Coordinator, staff and/or other pertinent parties to assist in the resolution process.
2. The ALA office or the ADA/504 Coordinator 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 the ADA/504 Coordinator.
3. If the student is not satisfied with the decision of the ALA office, a written complaint may be submitted to the ADA Coordinator within 10 working days of the decision (provided in step two). The time for submitting a written complaint may be waived for good cause as determined by TSTC's ADA/504 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/504 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/504 Coordinator. When necessary, the ADA/504 Coordinator shall consult with the ALA office and/or the ADA compliance committee to assist in the resolution.

The ADA/504 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 United States Department of Education - Office for Civil Rights, the Department of Justice, and/or the U.S. Department of Housing and Urban Development. Any of the listed entities will receive complaints and investigate as deemed appropriate.

Note: Accommodations can be requested at any time during the Grievance Procedure for Disability or Access-Related

Complaints by contacting the Office of Access and Learning Accommodations.

Access and Learning Accommodations Contacts

Access and Learning Accommodations

Office (Statewide)

254-867-3600

adarequest@tstc.edu

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

East Williamson County

East Williamson County Higher Education Center

1600 Innovation Blvd.

Hutto, TX 78634
512-759-5907

Fort Bend County & New Braunfels
Brazos Center
26706 SW Freeway
Rosenberg, TX 77471
337-936-3739

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

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

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

TSTC Online

254-867-3600

adarequest@tstc.edu

Waco
Student Services Center
3801 Campus Drive

Waco, TX 76705
254-867-3600

ADA/504 Coordinator
Edda Urrea

Sr. Executive Director of HR Learning & Development

and Compliance – Title IX & ADA/504 Coordinator

Texas State Technical College

1902 N. Loop 499

Harlingen, TX 78550

O: 254-867-4748 (1HR4U) / 956-364-4042

Email: ADACoordinator@tstc.edu

03. 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, then they will take precedence over any walk-ins except in a crisis situation. Services are available to students participating in online classes, and sessions can be scheduled for virtual appointments.

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 individual levels. Awareness of the dangerous effects of drug/alcohol use is imperative for an individual's well-being or survival. Negative consequences of drugs/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 that 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 jeopardizes family and other interpersonal relationships. Criminal behavior is frequently the means for financing a drug habit. Behavioral 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
- Online alcohol education course
- Community service
- Workshops
- Removal from TSTC housing facilities
- Suspension
- Expulsion

Possible Drug Sanctions:

- Probation
- Online drug education 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 Code of Student Conduct involving drugs and alcohol. For more information on the disciplinary process, review 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 college alcohol and drug regulations.

Any student 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. Highway 80
Abilene, TX 79601
325-734-3653

East Williamson County

1600 Innovation Blvd.

Hutto, TX 78634

254-867-3026

Fort Bend County & New Braunfels
26706 Southwest Freeway
Rosenberg, TX 77471
346-239-3232

Harlingen
1902 N. Loop 499
Harlingen, TX 78550
956-364-4314 or 956-364-4300

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

North Texas and Online

119 N. Lowrance Rd.

Red Oak, TX 75154

254-867-2996

Waco
3801 Campus Drive
Waco, TX 76705
254-867-3026 or 254-867-2299

04. Advocacy & Resource Center (ARC)

Texas State Technical College (TSTC) Advocacy & Resource Center (ARC) is dedicated to providing Texas-Sized Care and 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.

ARC Services

Food & Hygiene

The ARC assists students who are food insecure by offering snacks, nonperishable 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.

Child Care Assistance

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

Transportation Assistance

Transportation stipends are available at all campuses through ARC for students who meet program qualifications.

Book & Tool Program

The ARC assists students with books and tools from the Lending Library. Priority is given to special population students, including non-traditional, out-of-workforce individuals, single parents, veterans and students with disabilities.

Additional Services

The ARC provides a range of additional assistance for students, including:

- Clothing
- Counseling referrals
- Housing assistance
- Utility bill assistance
- Community resource referrals
- Emergency aid
- Case management and life skills workshops

Services for Students Who Are The Parent or Guardian of a Child Younger than 18 Years of Age
ARC staff members serve as liaison officers for current or incoming students at TSTC who are the parent or guardian of a child younger than 18 year of age. ARC can provide information to students regarding support services and other resources available to students at the institution including, but not limited to:

- Child Care Referrals.
- Child Care Assistance Stipends (services are contingent to meeting the qualifications for each respective campus and child care servicing agency).
- Transportation Assistance and/or referrals.
- Resource referrals for medical and behavioral health coverage and services.
- Referrals to and assistance applying for public benefit programs, including programs related to food security, affordable housing and housing subsidies.
- Referrals to other support services offered by TSTC, such as tutoring, mentoring, counseling and more.
- Referrals for employment assistance.
- Other ARC services and referrals that can support the student's needs.

Services for Students Who Were Formerly in the Conservatorship of Department of Family and Protective Services (DFPS)
ARC staff members serve as liaison officers for current and incoming students at TSTC who were formerly in the conservatorship of DFPS. ARC can provide information regarding support services and other resources available to the students at the institution and any other relevant information including, but not limited to:

- Referrals to the DFPS PAL caseworker for their region.
- Assistance navigating the foster care tuition waiver process.
- Referrals for scholarships.
- Emergency aid specifically for students who have been in foster care.
- Referrals to and assistance applying for public benefit programs, including programs related to food security, affordable housing and housing subsidies.
- Referrals to other support services offered by TSTC, such as tutoring, mentoring, counseling and more.
- Other ARC services and referrals that can support the student's needs.

How to Connect with ARC

Learn more about the ARC and TSTC's Culture of Caring by emailing cultureofcaring@tstc.edu or visiting our website. Here you can find ARC staff contact information and the Request for Support Form. Students at all TSTC locations and TSTC Connect students can connect with an ARC staff member by contacting us.

Advocacy & Resource Center Locations

East Williamson County
1600 Innovation Blvd. (CR 108)
Hutto, Texas 78634

Fort Bend County

ITC 2nd Floor, Suite 234

26706 SW Freeway
Rosenberg, TX 77471

Harlingen

Student Services Center

1902 N. Loop 499
Harlingen, Texas 78550

Marshall
Housing Commons Building H, Room 101
2650 East End Blvd. South
Marshall, TX 75672

North Texas
119 N. Lowrance Rd
Red Oak, TX 75154

Waco
Student Services Building, Suite 136
3801 Campus Drive
Waco, Texas 76705

Abilene

650 E. Highway 80, Room 144
Abilene, TX 79601

Sweetwater

Student Center, Room 106

300 Homer K. Taylor Dr.

Sweetwater, TX 79556

Breckenridge (food pantry)

Technology Center

307 N. Breckenridge Ave

Breckenridge, TX 76424

Brownwood (food pantry)

Welcome Center

301 Main Street

Brownwood, TX 76801

New Braunfels (food pantry)

TSTC & FAME Center

Student Lounge, Room 123

2189 FM 758

New Braunfels, TX 78130

05. Advising and Tutoring

Advising

Program advisors support students within assigned programs to develop individualized strategies for success placing an emphasis on learning and study strategies, time management, organization, self-advocacy and decision-making. Program advisors monitor and support students' progression toward degree or certificate completion, assist students in creating personalized, realistic educational plans that align with their life and career goals, and guide students in task initiation, prioritization, planning and execution. Program advisors help students navigate program deadlines, certification or licensure requirements and processes, and collaborate with other departments to prepare students for employment.

Additionally, program advisors support students' social and emotional well-being throughout their adjustment to the college environment. Using the standards of Texas-sized Care, program advisors connect students to support services such as Access and Learning Accommodations for students with disabilities, the Advocacy and Resource Center, CARE Team, Counseling, Library Services, Student Development, Testing and other learning support resources. Program advisors help students understand program policies, as well as TSTC policies, rules and regulations, and they assist students with return-to-program planning when applicable.

Tutoring

TSTC offers free tutoring services in both technical and academic subject areas to all TSTC students. Students may request tutoring services by clicking tstc.edu/tutoring or on the "Need Tutoring" icon located at the top of the Student Portal landing page. Students can also access the tutoring schedule, tutoring FAQs, and other resources by visiting our Tutoring Program Portal Page or by going to the Portal and clicking on the Student Learning drop-down menu. Tutoring services are delivered on an individual or group basis through live, virtual sessions conducted via Google Meets. Tutoring sessions may be available in the evenings and on weekends. Limited in-person tutoring may be available. Check the Statewide Tutoring Schedule on the Tutoring Program Portal Page for more details.

For more information, please contact the Director of Advising and Tutoring, Rachel King, at 325-734-3645.

06. Career Services

Career Services is the place to go to hire or get hired. It is part of our mission to meet the workforce needs of this great

state. To that end, Texas State Technical College (TSTC) boasts a high job placement rate. We work diligently to connect industry statewide to our highly skilled and qualified TSTC students and alumni.

Through strategic partnerships with industry leaders within each technical program, Career Services provides opportunities for students/alumni to be successful in the job search process.

TSTC places a high priority on helping graduating students find fulfilling careers in their chosen field of study. The department empowers students and alumni to articulate and leverage their technical skills and real-life experiences to be competitive in the ever-changing job market. The philosophy of the college is that its job is not complete when the student finishes his or her studies, but continues with assistance in securing employment. TSTC provides career development services to all students and graduates. Every effort is made to assist students as they seek employment or to further their education.

Career Services may decline to post any job ads for any employer that fails to abide by the rules and procedures, outlined in the Principles for Professional Practice (provided by NACE-National Association of Colleges and Employers), and to comply with applicable laws in its job postings.

Employment professionals will maintain equal employment opportunity (EEO) compliance in recruiting activities in a manner that includes the following:

1. Reviewing selection criteria for best qualified applicant.
2. Avoiding the use of questions that are considered unacceptable by EEO standards during the recruiting process.
3. Informing campus constituencies of activities that have been developed to achieve the employer's goals.
4. Investigating complaints forwarded by the Career Services Office regarding EEO noncompliance and seeking resolution of such complaints.
5. Provide reasonable accommodations upon request to be coordinated with the Human Resources office for employees/visitors and the Access and Learning Accommodations office for students.

07. 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 credit 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 Engagement 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. For additional information, see SOS 3.23 Student Rights and Responsibilities.

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 10 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 more information, see Statewide Operating Standard (SOS) ES 3.22 Student Travel.

08. Library Services

Library Services combines subject specialists with an online library of electronic resources to foster learning and exploration in a diverse community. These materials support the College's curricula and programs, offering information literacy and lifelong learning skills while shaping the student to get hired

Students and employees have 24/7 access to library resources in the form of databases, websites, e-books, e-journals, e-audio and video streaming. Trained staff are available to assist in locating and using the online materials. Library services include, but are not limited to, research help, program/subject LibGuides, reference support, instructional videos, library events and tutorials.

For more information, visit tstc.libguides.com, email asklibrary@tstc.edu, text 254-332-2968, and chat/submit questions at tstc.libguides.com/askus.

09. TSTC Café

TSTC offers food services across multiple campuses, meals are unavailable on weekends. For specific hours of operation and pricing, please reach out to your campus food service.

Meal plans are available at the Harlingen, Sweetwater and Waco campuses.

12. Campus Security and Safety

01. Annual Security Report (Clery Report)

The Jeanne Clery Campus Safety Act, formally known as the The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, is a federal law requiring colleges and universities to publish an annual report by October 1 each year, disclosing crime statistics for incidents that occur on campus, at off-campus college facilities, residence halls and public property immediately adjacent to the campus. In addition, provide specific policy statements regarding campus safety and security.

Campus Fire Safety Right-to-Know Act, as established by the Higher Education Opportunity Act of 2008, TSTC maintains comprehensive fire safety reporting for all on-campus housing facilities. The annual fire safety reports current information about fires in on-campus housing and fire prevention and safety policies.

It is the policy of TSTC to fully comply with the federal mandates of the Clery Act by collecting and furnishing the Annual Security and Fire Safety Report

The TSTC Police Department maintains a daily crime and fire log with summary information about reported crimes to the college police and any fires in on-campus student housing facilities. The crime and fire log are open for public access during normal business hours.

Annual Security and Fire Safety Report contains data regarding specific offenses that occurred on campus for the most recent calendar year, and data from two preceding calendar years, as well as the number of arrests for crimes occurring on campus. The report also includes geographical breakdown, expanded definition of campus and reporting of hate crimes. The TSTC's Annual Security and Fire Safety 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.

02. Campus Carry

Texas State Technical College (TSTC) takes the issue of guns on campus very seriously. The safety and security of our students, employees and visitors is a top priority. In accordance with Texas Penal Code Section 46.03, the possession of any weapon is prohibited on the physical premises of TSTC except for a person licensed to carry under Subchapter H, Chapter 411, Government Code, who is carrying a concealed handgun in an area not 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.

03. 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. Police 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. Police 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, solely 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.

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.

Waco | North Texas | East Williamson County| New Braunfels

Lieutenant Eduardo Becerra

1101 Airline Drive

Waco, TX 76705

254-867-3690 (office)

254-867-3410 (fax)

eduardo.becerra@tstc.edu

Harlingen | Fort Bend County | Marshall | Sweetwater | Abilene | Brownwood | Breckenridge

Lieutenant Eduardo Becerra

2201 Airport Dr.

Harlingen, TX 78550

956-364-4220 (office)

956-364-5171 (fax)

eduardo.becerra@tstc.edu

04. Parking & Transportation

Parking Permits

On-campus parking permits will not be required this academic school year. Student housing permits are available at the Student Housing Office.

Vehicles and Parking on Campus

Texas State Technical College (TSTC) assumes no responsibility for any vehicle or its content while the vehicle is parked or operated on College property.

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, registration and parking permits (if applicable) while the vehicle is parked or operated on College property.

Parking on the grass, sidewalks, 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 TSTC's 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 and traffic rules and regulations can be found at tstc.edu/student-life/safety-and-security.

05. 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.

06. Lost and Found

Lost and found items are turned over to the College Police Department or designated office, which make 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 from 8 a.m. to 5 p.m., Monday through Friday.

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 located, all abandoned or found 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

Associate Provost

325-734-3632

Breckenridge

Associate Provost

254-559-7707

Brownwood

Associate Provost

325-641-3911

East Williamson County

Temple College Security

512-759-5911

Fort Bend County

Security Office

346-239-3390

Harlingen

Campus Police

956-364-4220

Marshall

Security Office

903-923-3351

New Braunfels

Reception/Front Desk

830-402-1800

North Texas

Provost Office

469-820-6795

Sweetwater

Campus Police

325-235-7400

Waco

Campus Police

254-867-3690

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

Riding bicycles, roller skates, in-line skates, scooters, hoverboards, Swagways, Segways, IO Hawks, Skywalkers or other similar self-balancing boards/scooters, skateboards and similar coasting devices will be allowed as long as all safety precautions are taken. All transport devices must be operated in a safe manner that prevents or mitigates personal injuries and promotes active transportation on college property. 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.

08. Health Regulations

Communicable Diseases

"Communicable disease means an illness that occurs through the transmission of infectious agent toxic products from a reservoir to a susceptible host," according to the Texas Health and Safety Code, Sec. 81.003. Communicable diseases include, but are not limited to, measles, influenza, viral hepatitis-A (infectious hepatitis), viral hepatitis-B (serum hepatitis), human immunodeficiency virus (HIV), AIDS (acquired immune deficiency syndrome), AIDS-related complex (ARC), HIV infection (human immunodeficiency virus infection), meningitis, meningococcal infections and tuberculosis. The term "HIV infection" shall include AIDS, AIDS-related complex (ARC), and a positive test for the antibody to human immunodeficiency virus. HIV is the virus that causes AIDS (a result of HIV infection).

Texas State Technical College (TSTC) recognizes that communicable diseases are a serious threat to public health. In the event of a communicable disease, TSTC works with notifying a health agency and in compliance with Texas Department

and Health Services and county health department recommendations, and regulations for an educated response to issues concerning communicable 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.

Confidentiality

All information regarding the medical status of students is confidential and may not be released without the individual's consent, except otherwise provided by law.

Medical Judgment

Any decision that TSTC makes concerning a person who has a communicable disease shall be based on current and well-informed medical judgment, which includes the nature of the disease, risk of transmission to others, symptoms and special circumstances of the person. The decision that a person poses a threat will be based solely on knowledge of the duration of the risk; nature and severity of the potential harm; likelihood the potential harm will occur; and imminence of the potential harm.

Bacterial Meningitis Notification

State law (Texas Education Code Section 51.9192) states that all students attending an institution of higher education are required to provide proof of a current bacterial meningitis vaccination.

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% 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 the Centers for Disease Control and Prevention.

09. 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 or anything 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.

In case of an emergency, call 911, 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

325-235-7400

Breckenridge

325-235-7400

Brownwood

325-235-7400

Sweetwater
TSTC Police Department
325-235-7400

Fort Bend County
TSTC Security Department
956-364-4220

Harlingen
TSTC Police Department
956-364-4220

Marshall
TSTC Security Department
903-923-3351

New Braunfels

956-364-4220

North Texas
254-867-3690

Waco

TSTC Police Department

254-867-3690

East Williamson County
254-867-3690

10. Pets on Campus

Texas State Technical College is committed to providing a healthy and safe environment for students, faculty, staff and visitors by managing the presence of animals on campus property and facilities for reasons of health and cleanliness. Animals are not allowed inside college buildings, including offices, residence halls, recreational facilities, labs, academic buildings or any other TSTC owned facilities.

In accordance with federal law, TSTC does permit service animals on campus. TSTC also permits formally approved and registered emotional support animals for students with disabilities who live in campus housing. Approved emotional support animals are only permitted inside the qualified student's assigned residence or in outdoor public spaces secured with a leash and in the control of the owner at all times. The emotional support animals are not permitted inside other college buildings or facilities. See the Access and Learning Accommodations section for more details.

For more information, contact Access and Learning Accommodations (adarequest@tstc.edu) or the Housing Office.

13. Student Rights and Responsibilities

01. 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 online and found 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.

02. 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, offensive images, 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 race, color, religion, sex (including pregnancy, gender identity and sexual orientation), parental status, national origin, age, disability, genetic information (including family medical history), political affiliation, military service or other non-merit based factors that would be in violation of any applicable federal, state or local law.

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.

03. Title IX

The Title IX procedures and Statewide Operating Standard HR 2.4.15 are subject to change. Please consult the most current version of HR 2.4.15 for updates. 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 separation of employment if found to be responsible.

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."

The Title IX procedures and Statewide Operating Standard HR 2.4.15 are subject to change. Please consult the most current version of SOS HR 2.4.15 for updates.

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.

Education Program or Activity: Any location, event, or circumstance over which the recipient exercises substantial control over both the respondent and the context in which the sexual harassment occurs.

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.
F. Sexual Violence – act penetrated against someone's will. Includes same sex violence/incidents.
G. 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.

Supportive Measures: Non-disciplinary, non-punitive individualized services offered as appropriate, as reasonably available, and without fee or charge to the complainant or the respondent before or after the filing of a formal complaint or where no formal complaint has been filed.

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, 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 and submit a report utilizing the Sexual Misconduct and Gender Based Discrimination form.

A. The complaint may be oral or in writing, utilizing the Sexual Misconduct and Gender Based Discrimination form. After receiving the complaint/report, the designated Student Title IX coordinator/representative shall initiate a thorough, prompt and equitable inquiry. Immediate interim measures may be considered, if determined necessary. These may include emergency removal; *the college can act to remove a student respondent entirely or partially from its education program or activities on an emergency basis when an individualized safety and risk analysis has determined that an immediate threat to the physical health or safety of any student or other individual justifies removal. This risk analysis is performed by the Title IX coordinator in conjunction with the CARE Team using its standard objective violence risk assessment procedures*, 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 representative 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 representative 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 as noted in HR 2.4.15 Prohibiting Sexual Misconduct and Gender Based Discrimination.
D. In all cases, a prompt, fair and impartial process and resolution shall be afforded.
E. The representative will report to the Title IX coordinator 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 Complaint Process (for students only)

A request for a formal compliant process may be submitted in writing to the appropriate Title IX coordinator/representative by either the reporting party. The Title IX coordinator shall arrange the review board (three TSTC employees) for a live hearing after the representative has conducted the necessary interviews. For a mandatory dismissal, the college shall dismiss a formal complaint if: the allegation does not describe conduct that would constitute Title IX Sexual Misconduct; the Title IX Sexual Misconduct did not occur in the college's education program or activity; or the Title IX Sexual Misconduct did not occur against a person in the United States.

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 investigation details collected and determine preponderance of evidence, as well as recommendations for sanctions.
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. Both parties will have the right to an assigned advisor. If a student 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, are considered responsible employees and have the duty to report sexual misconduct to the proper Title IX coordinator/representative via the Maxient reporting system. The report must include 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.

TSTC 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.

Rights of the Complainant and Respondent

The college is committed to providing accessible, prompt, thorough and fair methods of investigation and resolution of incidents reported under this policy to all college students. To this end, both the complainant and respondent are entitled to the following rights throughout the investigation and review processes.

1. To be treated with dignity by all persons involved in the investigation and disciplinary process.
2. To a prompt and thorough investigation of the allegations.
3. To a fair hearing.
4. To equal access to information, evidence and college resources, including information pertaining to counseling services.
5. To the necessary policies.
6. To participate or to decline to participate in the investigation or review process.
7. To have an advisor of their choosing present at all meetings and reviews.
8. To written notice of all meetings and formal reviews, including the time and place. Proper written notification shall be defined as delivery of mail to a student's email message sent to the email account established as his or her official email. Students shall be held responsible for the contents of mail sent to reported e-mail messages sent to their established email accounts. Students have the responsibility for providing the college with current email addresses and phone numbers.
9. To present information and/or witnesses on their behalf during the investigation and review process. The relevancy of witnesses shall be determined by the Title IX coordinator or their designee during the investigation phase, and by the Title IX review board chair for the formal review.
10. To choose not to present information against themselves. Students do not have to speak at any meeting, conference or hearing and no negative inference will be made should a student choose not to speak.
11. To hear and respond to all information presented against them.
12. To one written copy of the investigation report stating the allegations, information gathered from all parties and witnesses and the Title IX coordinator's determination as to whether the information gathered could constitute a violation of this policy.
13. To adequate time to review the investigation report and any evidence that will be presented to the Title IX review board.
14. To notice of the charges (including what prohibited conduct is at issue) that will be presented to the Title IX review board and reasonable notice of the date and time of the formal review.
15. To have any unrelated past behavior excluded from the investigation and disciplinary process, as determined by the Title IX coordinator.
16. To submit written materials to the Title IX review board relevant to the report, which may include a written impact statement by the complainant and a statement of mitigating factors by the respondent.
17. To be free from intimidation, harassment, bullying or any other form of retaliation throughout the investigation and disciplinary process.
18. To written notification of the results of the review board or other case resolution, including any sanctions imposed.
19. To be informed of their right to appeal and of the process for doing so.
20. To written notification of the outcome of the review board's finding related to preponderance of evidence and sanctions imposed, if applicable.
21. To privacy throughout the investigation and disciplinary process with respect to campus and other media, and from all other uninvolved parties.
22. To an opportunity to challenge the investigator(s), Title IX coordinator, Title IX review board or any other staff or administrator involved in the investigation, hearing or appeal process for a possible conflict of interest.

23. To understand that information collected in the process may be subpoenaed in criminal or civil proceedings.
24. To have reasonable steps taken to prevent any unnecessary or unwanted contact with the other party(ies) during the investigation and hearing process. Additionally, the complainant has the right to report the incident.

Request for Review of Title IX Review Board Decision

Both parties will have the right to request a review of the Title IX review boards decision on responsibility determination and any dismissal of a formal complaint or allegations therein to be presented to the student deputy Title IX coordinator for determination.

A review must be based on one or more of the following grounds:

1. A procedural irregularity occurred;
2. New evidence or information exists that could affect the outcome of the matter;
3. The Title IX coordinator, investigator or Title IX review board had a conflict of interest or bias for or against complainants or respondents generally, or the individual complainant or respondent, that affect the outcome of the matter; and/or
4. The sanction is disproportionate with the violations.

Review request should be submitted in writing to the Title IX coordinator/representative within three business from the decision rendered.

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.

TSTC 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:

Student Title IX Representatives
Janette Gomez
Sr. Student Development Specialist

janette.gomez@tstc.edu

956-364-4383

Griselda Sanchez

Student Development Specialist
griselda.sanchez@tstc.edu

325-235-7311

Nicholas Brannan

Student Development Specialist

ntbrannan@tstc.edu

903-923-3245

Ronald Lopez

Student Development Specialist

ronald.lopez@tstc.edu

254-867-3925

Employee Title IX Representatives:

Cara Noyes

Sr. Human Resources Business Partner

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Title IX Coordinator for Students, Employees and Visitors
Edda Urrea
Sr. Executive Director of Human Resources

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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

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

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

Harlingen

TSTC Police

956-364-4220

After hours: 956-873-2677

Weekends: 956-873-267

Family Crisis Center - serving Harlingen

616 W. Taylor Ave.

Harlingen, Texas 78550

956-423-9304

Family Crisis Center - serving Raymondville

192 N. 3rd Street

Raymondville, Texas 78580

956-689-5150

Friendship of Women - serving Brownsville

95 E. Price Rd.

Brownsville, Texas 78521

956-544-7412

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

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

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

New Braunfels

Shelters:

Kendall County Women's Shelter

Main Phone: 830-331-1001

Emergency After Hours: 800-495-8078

Atascosa Family Crisis Center

Main Phone: 830-281-2001

Emergency After Hours 830-569-2001

Crisis Center of Comal County

Phone: 830-620-4357; 800-434-8013

Advocacy:

SAPD Victims Advocacy Services

Phone: 210-207-2141

Family Justice Center

Phone: 210-208-6800

Family Violence Prevention Services

Phone: 210-930-3669

Surrounding Areas:

United Way 2-1-1

Child Abuse & Neglect:

Statewide Hotline 800-252-5400

Guadalupe Valley Family Violence Shelter

Phone: 830-372-5971; 800-834-5970

Law Enforcement:

Comal County Sheriff's Office

3005 W. San Antonio St.

New Braunfels, Texas 78130

Non-Emergency 830-620-3400

Atascosa County Sheriff's Office

1108 Campbell Ave

Jourdanton, TX 78026

Non-Emergency 830-769-3434

Bandera County Sheriff's Office

3360 State Hwy. 173 North P.0. Box 607

Bandera, TX 78003

Non-Emergency 830-796-3771

Guadalupe County Sheriff's Office

2617 N. Guadalupe

Seguin, Texas 78155

Non-Emergency 830-379-1224

Kendall County Sheriff's Office

6 Staudt St,

Boerne, TX 78006

Non-Emergency 830-249-9721

Kerr County Sheriff's Office

400 Clearwater Paseo

Kerrville, Texas 78028

Non-Emergency 830-896-1133

Wilson County Sheriff's Office

800 10th Street, Unit 4

Floresville, TX 78114

Non-Emergency 830-393-2535

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

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 hours)
325-677-7895
http://regionalvictimcrisiscenter.org

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

MHMR – Betty Hardwick Center (24 hours)
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 Department

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 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 is 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! Call resident assistants/community assistants, TSTC police, or 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 is involved that you are committed to helping them.
- Encourage value-based decisions.

National Bystander Intervention Resources

A CALL TO MEN

www.acalltomen.org

hollaback!

www.ihollaback.org

Take Action

www.ihollaback.org/take-action

Know Your IX

www.knowyourix.org

Love is Respect

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

East Williamson County

Texas RioGrande Legal Aid

4920 N. I-35

Austin, Texas 78751

512-374-2700

800-369-9270

www.trla.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

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.

04. Code of Student Conduct

Purpose

It is the practice of Texas State Technical College 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 that 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.

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 Statewide 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% 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.

Statewide Review Board (Committee) – a group convened at the request of a student or student group to evaluate the conduct officer'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 credentials.
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 and/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.

No-Contact Order - A college's directive that restricts contact between individuals in any way. Violation of the order could be grounds for suspension or permanent dismissal.

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 Statewide Review 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 (3) working days to request a review from the Review Administrator.
- The student shall be notified within five (5) 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 (2) 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 Statewide Review Board shall be allowed to question both parties and request additional information or clarification.
- Review procedures shall be confidential and closed to the public.

Statewide Review Board (Committee)

- The Committee 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 Committee 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 Committee is to review the findings and sanctions originally imposed by the conduct officer or designee. The Committee 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 Committee 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 Committee. 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 the instructor of record.

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 the 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.

Decision Review Process

Students may request a review of the instructor's decision to the Statewide Review Board. A written, final decision will be provided to the student by the Provost, Associate Provost or designee within five working days of the Statewide Review Board's formal findings letter.

05. 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.)

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)

TSTC encourages reporting of Title IX incidents involving sexual misconduct which includes sexual harassment, sexual assault, dating violence and/or stalking. Sometimes victims are hesitant to report to college officials because they fear that they themselves may be charged with policy violations. TSTC recognizes that an individual who has been consuming alcohol (including underage consumption) or drugs at the time of an incident may be hesitant to make a report because of potential consequences for that conduct. To encourage reporting, an individual who makes a good faith report of a Title IX offense that was directed at them or another person, or who participates in an investigation as a witness, will not be subject to disciplinary action by TSTC for a conduct or policy violation that is related to and revealed in the sexual misconduct report or investigation, unless it is determined that the violation was serious and/or placed the health or safety of others at risk. Amnesty does not preclude or prevent action by police or other legal authorities. Refer to the [TSTC Title IX website](#) for more information.

06. Student Complaints and Grievances/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, Sweetwater, East Williamson County and Waco
Griselda Marion, Senior Student Development Specialist
griselda.marion@tstc.edu
325-235-7311

Harlingen, Fort Bend, Online Students, Marshall, New Braunfels and North Texas
Janette Gomez, Senior Student Development Specialist
janette.gomez@tstc.edu
956-364-4383

TSTC campuses are located at Abilene, Brownwood, Breckenridge, East Williamson County, Fort Bend County, Harlingen, Marshall, New Braunfels, North Texas, 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. The individual 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 Grievances and Complaints policy, including associated procedures, is posted to the college website, see SOS ES 3.24 Student Grievances and Complaints.

TSTC prohibits any act, deed or speech interpreted as harassment, by or against, students, employees and guests of the College.

For student claims of discrimination, please see SOS ES 3.24 Student Grievances and Complaints

For employee claims of discrimination, please see SOS HR 2.5.1 Anti-Harassment.

Nonacademic Grievance Procedures

1. To initiate a grievance, 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 will 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 ten (10) working days from the date of the action or decision that is the basis of the grievance. If unsuccessful in resolving the problem, the student must contact the "Student Development Specialist" at the Student Rights and Responsibilities Office at their assigned campus. The Student Development Specialist's contact information is available online in the TSTC Catalog and Student Handbook under Grievances and Complaints. The Student Development Specialist will assist the student by:
   a. Reviewing the grievance policy with the student. The Student Development Specialist will also provide the student with a copy of or a link to this SOS (SOS ES 3.24 Student Grievance/Complaint).
   b. Providing the student with the Academic/Non-Academic Grievance SOS ES 3.24 Student Grievances and Complaints 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 will include a summary of the nature of the grievance on the form or in a written attachment and submit the completed form to the Student Rights and Responsibilities Office.
   c. Acknowledging receipt of the grievance in writing within five (5) 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.
2. The grievance will be submitted to the immediate supervisor of the party whose actions are being grieved. The immediate supervisor will propose a resolution consistent with TSTC policies and with applicable local, state and federal laws. The immediate supervisor will notify the student and Student Development Specialist of the resolution within fifteen (15) working days from receipt of the grievance. (Extensions may be granted for extenuating circumstances.) The immediate supervisor will also provide the student with a written copy of the proposed resolution.
3. If dissatisfied with the proposed resolution, the student may request that the Statewide Review Board review the grievance. This request must be made in writing using the Formal Review Request Form 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 will meet within ten (10) working days of receiving the student's request to review all available documentation. The Statewide Review Board will provide its written decision to the student, the Student Development Specialist, and the employee within five (5) working days from the date of the review. In the event that extenuating circumstances prevent the Statewide Review Board from completing its investigation and/or

report within five (5) working days, the student will be notified of a new time frame. The Statewide Review Board's decision will be final. If the student requests a review and does not attend the scheduled hearing, the student waives their right to the review.

Academic Grievance Procedures

1. The student must first contact the parties responsible for the action or SOS ES 3.24 Student Grievances and Complaints 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 will 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) ten working days from the date of the action or decision that is the basis of the grievance.
2. If unsuccessful in resolving the problem, the student must contact the Student Development Specialist at their assigned campus. The Student Development Specialist's contact information is available online in the TSTC Catalog and Student Handbook under Grievances and Complaints. The Student Development Specialist will assist the student by:
   a. Reviewing the grievance policy with the student. The Student Development Specialist will also provide the student with a copy of or a link to this SOS, SOS ES 3.24 Student Grievance/Complaint.
   b. Providing the student with the Academic/Non-Academic Student Grievance 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 will include a summary of the nature of the grievance on the form or in a written attachment.
   c. Acknowledging receipt of the grievance in writing within five (5) 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.
3. The grievance will be submitted to the Provost or designee of the party whose actions are being grieved. The Provost or designee will propose a resolution consistent with TSTC policies and with applicable local, state and federal laws. The Provost or designee will notify the student and Student Development Specialist of the resolution within fifteen (15) working days from receipt of the grievance. (Extensions may be granted for extenuating circumstances.) The Provost or designee will also provide the student with a written copy of the proposed resolution.
4. If dissatisfied with the proposed resolution, the student may request that the Statewide Review Board review the grievance. This request must be made in writing using the Formal Review Request Form within three (3) working days of receipt of the letter outlining the proposed resolution and must specify what in the resolution is unsatisfactory. The board will meet within ten (10) working days of receiving the student's request to review all available documentation. The Statewide Review Board will provide its written decision to the student, Student Development Specialist, and the employee within five (5) working days from the date of the review. In the event that extenuating circumstances prevent the Statewide Review Board from completing its investigation and/or report within five (5) working days, the student will be notified of a new time frame. The Statewide Review Board 's decision will be final. If the student requests a review and does not attend the scheduled hearing, the student waives their right to the review.

Review Procedures

1. A Co-Chair of the Statewide Review Board Committee will be responsible for assembling the committee to hear the review.
2. The decision of the Statewide Review Board 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 Statewide Review Board Committee has a maximum of three (3) working days from the date of the review to respond to the student and employee with a decision in writing.

Online Student Process

Complaint resolution for TSTC students enrolled in online courses while residing outside of Texas are as follows:

- The first step is to follow student complaint procedures on the course syllabus with the instructor and program leadership.

- If the issue is not resolved, students may **click here** to find the representative for their campus.

- Complaints against a SARA-participating institution must first go through the institution's grievance procedures. All complaints regarding student grades or conduct violations are governed by the institution and the laws of the institution's home state. If a student is not satisfied with the outcome of the institutional grievance process, the student may appeal, within two years of the incident, to the SARA portal agency of the institution's home state. For all complaints regarding Texas degree-granting postsecondary institutions participating in SARA, complete the **Student Complaint and Release Form** and email the form to **StudentComplaints@highered.texas.gov**.

Compact With Texans Complaint Handling Procedures

1. An Effective Customer Relations Form must be made available to any student, employee or visitor who has a complaint or grievance. To submit a concern or complaint, a form must be completed and submitted to the assigned Student Development Specialist. The form and the Student Development Specialist's name are available online in the TSTC Catalog and Student Handbook under Compact with Texans in the Student Rights and Responsibilities section of the catalog.
2. The Student Development Specialist will acknowledge receipt of the grievance in writing within five (5) working days. The notice is intended to let the student, guest or visitor know the matter is receiving attention and to provide the student with an estimate of the length of time needed to resolve the issue.
3. The Student Development Specialist will contact the immediate supervisor about the complaint. The supervisor will review the complaint and interview the employee and/or any witnesses, if applicable.
4. The immediate supervisor will provide a letter within fifteen (15) working days to the complainant that addresses the complaint and what actions, if any, were taken by TSTC. (Extensions may be granted for extenuating circumstances.) This letter will 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 process.

Discrimination of a student or a Title IX grievance will be handled in accordance with [SOP HR 2.4.15 Prohibiting Sexual Misconduct and Gender-Based Discrimination](#).

See the [Statewide Operating Standards (SOS) Home Page](#) for a full list of SOSs related to General Administration (GA), Educational Services (ES), Human Resources (HR), and Fiscal Affairs (FA).

07. Family Educational Rights and Privacy Act (FERPA)

TSTC complies with the Family Educational Rights and Privacy Act (FERPA) and informs students of their rights in its handling of student records. Students' 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 the college to amend or correct any part of his/her academic record that 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 specifying 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 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 Technical 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 Enrollment Center);
   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 a 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 Ave. 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 updating their Privacy settings in Workday or by completing the appropriate request form in the Enrollment Center during registration or within the first five class days. 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 Enrollment Center 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.

14. Faculty Listing

01. Faculty

TSTC faculty bring to the classroom years of industry experience and education.

Listed below are instructor's names, position, education or qualifying credentials and program in which they each serve.

[tstc.edu/course-schedules](#).

Abshier, Charles

Instructor

Associate of Applied Science

Diesel Mechanics Technology

Acevedo, Adriana

Adjunct Faculty

Master of Science in Nursing

LVN to RN Transition Nursing Program

Adams, Jonathan

Instructor

Associate of Applied Science

Culinary Arts

Adams, John

Instructor

Alternative Credentialing Experiential-Trade School Diploma

Automotive Technology

Aguila, Myriam

Instructor

Master of Education

Education and Training

Aguirre, Abraham

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Alaniz, Roman

Instructor

Associate of Applied Science

Welding Technology

Alba, Guillermo

Instructor

Associate of Applied Science

Mechatronics Technology

Alcoser, Alex

Instructor

Master of Science

Cybersecurity

Alcoser, Maria

Instructor-Adjunct

Master of Fine Arts

Art

Alderman, Christi

Instructor

Bachelor of Science

Developmental Math

Ali, Aftab

Instructor

Alternative Credentialing Experiential

Computer Networking & Systems Administration Technology

Alvear, Christina

Instructor

Master of Science

Associate Degree in Nursing

Alves, Penny

Instructor-Adjunct

Associate of Applied Science

Emergency Medical Services

Anderson, Gwenda

Instructor-Adjunct

Master of Science

Developmental Mathematics

Anderson, Hunter

Instructor-Certified Flight Instructor

Bachelor of Science

Aircraft Pilot Training Technology

Anthony, Richard

Instructor

Bachelor of Arts

Aviation Maintenance

Antilley, Lance

Instructor

Associate of Applied Science

Industrial Systems

Araguz, Edgar

Instructor

Bachelor of Science

Aviation Maintenance

Aranda, Alex

Instructor

Certificate of Completion

Welding Technology

Ardalani, Kyumars

Associate Professor

Master of Science

Mathematics

Ardalani, Shwan

Instructor

Master of Business Administration

Business Management Technology

Arnold, Claudia

Instructor

Bachelor of Arts

First Year Seminar

Atkins, Ronald

Instructor

Alternative Credentialing Experiential

Wind Energy Technology

Avila, Jose

Instructor

Associate of Applied Science

Automotive Technology

Avila, Juan

Instructor

Associate of Applied Science

Welding Technology

Baesler-Ridge, Christopher

Instructor

Master of Arts

English

Baily, Jeremy

Director of Alignment

Associate of Applied Science

Precision Management Technology

Baize, Truman

Instructor

Alternative Credentialing Experiential-Journeyman Lineman

Electrical Lineworker Technology

Bakus, Matthew

Instructor

Certificate of Completion

Welding Technology

Balderas, Kellie

Instructor

Associate of Applied Science

Architectural Civil Drafting Technology

Barnes, Erik

Instructor

Certificate of Completion

Welding Technology

Barrera, Alberto

Instructor

Associate of Applied Science

Mechatronics Technology

Barrientos, Rolando

Instructor

Alternative Credentialing Experiential-Journeyman Lineman

Electrical Lineworker Technology

Bass, Bryan

Instructor

Alternative Credentialing Experiential

Electrical Lineworker Technology

Batot, Rebekah

Instructor-Adjunct

JD-Doctor of Jurisprudence

First Year Seminar

Baugh, John

Instructor

Bachelor of Science

Instrumentation Technology

Bayliss, Mark

Instructor

Alternative Credentialing Experiential-Journeyman Lineman

Electrical Lineworker Technology

Bazan, Pedro

Associate Professor

Master of Science

Mathematics

Bell, Earnest

Instructor

Bachelor of Science

Robotics Technology

Benitez, Edelmiro

Instructor

Bachelor of Applied Technology

Business Management Technology

Benson, Russell

Director of Alignment

Associate of Applied Science

Wind Energy Technology

Bibb, Jimmy

Director of Alignment

Certificate of Completion

Plumbing & Pipefitting Technology

Bice, Lucia

Instructor

Master of Education

Developmental English

Biddy, Jonathan

Instructor

Bachelor of Arts

Developmental English

Blackburn, Ashley

Director of Alignment

Bachelor of Science

Emergency Medical Services

Blackshear, Yvonne

Instructor

Bachelor of Science

Computer Networking and Systems Administration Technology

Blake, Gary

Instructor

Associate of Applied Science

Aviation Maintenance Technology

Blosser, James

Instructor

Associate of Applied Science

Industrial Systems

Boer, James

Instructor

Associate of Applied Science

Welding Technology

Bohannon, Brian

Instructor

Certificate of Completion

Culinary Arts

Bowles, Roger

Professor

Bachelor of Science

Biomedical Equipment Technology

Boyd, Cynthia

Instructor

Bachelor of Science

Emergency Medical Services

Boyd, Melissa

Adjunct Faculty

Master of Science in Nursing

LVN to RN Transition Nursing Program

Brannen, David

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Brantly, Cyler

Instructor

Associate of Applied Science

Welding Technology

Braswell, Mark

Instructor- 9 months

Associate of Applied Science

Surgical Technology

Brem, Lance

Instructor

Associate of Applied Science

Electrical Power and Controls

Brickner, Larry

Instructor

Associate of Applied Science

Industrial Systems

Briggs, Matthew

Instructor

Associate of Applied Science

Emergency Medical Services

Brigman, Leroy

Instructor

Associate of Applied Science

Welding Technology

Brooks, Duston

Instructor

Bachelor of Business Administration

Business Management Technology

Brooks, Sarah

Director of Alignment

Bachelor of Science

Health Information Technology

Brown, Linnea

Instructor

Master of Science

Associate Degree in Nursing

Brown, Mitchel

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Browning, Yvonne

Associate Professor

Master of Arts

Developmental English

Bruce, Christopher

Instructor

Certificate of Completion

Welding Technology

Bruton, Benjamin

Director of Alignment

Bachelor of Science

Computer Programing Technology

Bryant, Elizabeth

Instructor

Master of Arts

Government

Bryant, James

Instructor

Master of Science in Nursing

Vocational Nursing

Bryant, Joel

Senior Instructor

Bachelor of Science

Cybersecurity Technology

Bufkin, Debra

Instructor

Master of Arts

Mathematics

Bullock, Jaron

Instructor

Associate of Applied Science

Aviation Maintenance

Burchett, Joshua

Instructor

Associate of Applied Science

Industrial Systems

Burke, Mason

Instructor

Certificate of Completion

Electrical Lineworker Technology

Burns, Travis

Instructor

Certificate of Completion

Welding Technology

Burton, Dillon

Program Team Lead

Associate of Applied Science

Welding Technology

Buterbaugh, Stacie

Instructor

Bachelor of Science

Digital Media & Design Technology

Byrd, James

Instructor

Bachelor of Business Administration

Diesel Equipment Technology

Cabarubio, Ayla

Instructor

Associate of Applied Science

Culinary Arts

Campa, Erick

Instructor

Bachelor of Science

Mechatronics Technology

Campbell, James

Instructor

Bachelor of Applied Science

Electric Power and Controls

Campbell, Jena

Director of Alignment

PhD-Doctor of Philosophy

Academic Core

Cantu, Becka

Instructor

Associate of Applied Science

Building Construction Technology

Capetillo, Oziel

Instructor

Associate of Applied Science

Biomedical Equipment Technology

Capps, Robert

Director of Alignment

Associate of Applied Science

Aviation Maintenance

Carithers, Eric

Director of Alignment

Associate of Applied Science

Electrical Lineworker Technology

Carroll, Rebecca

Instructor

Associate of Applied Science

Architectural & Civil Drafting Technology

Carter, Ross

Instructor-Certified Flight Instructor

Bachelor of Science

Aircraft Pilot Training

Case, Cody

Instructor

Alternative Credentialing Experiential-Journeyman Lineman

Electrical Lineworker Technology

Casey, Kyle

Instructor

Associate of Applied Science

Electrical Lineworker Technology

Castillo, Charles

Instructor

Master of Science

Biology

Castro, Eric

Director of Alignment

Bachelor of Science

Web Design & Development Technology

Cerda, Luis

Instructor-Adjunct

Associate of Applied Science

Dental Hygiene

Cermeno, Vivienne

Instructor

Bachelor of Science

Dental Hygiene

Cernosek, Brandon

Instructor

Associate of Applied Science

Welding Technology

Cervantez, Rudy

Director of Alignment

Associate of Applied Science

Automotive Technology & Auto Collision Technology

Chaffin, Tony

Instructor

Master of Science

Building Construction Technology

Chaney, Edward

Director of Alignment

Associate of Applied Science

Industrial Systems Technology

Chavez, Leonardo

Instructor

Associate of Applied Science

Computer Networking and Systems Administration Technology

Chavez, Maricela

Director of Alignment

Master of Science

Surgical Technology

Chavez, Ramiro

Instructor

Associate of Applied Science

Aviation Maintenance

Cherry, Aaron

Instructor

PhD-Doctor of Philosophy

Psychology

Childers, Charles

Director of Alignment

Master of Business Administration

Diesel Equipment Technology

Childs, Howard

Professor

EdD-Doctor of Education

Developmental Math

Chirino, Hermes

Instructor

Master of Science

Chemistry

Chrisman, Michael

Instructor

Alternative Credentialing Experiential

Plumbing & Pipefitting Technology

Christensen, Clayton

Instructor

Associate of Applied Science

Robotics Technology

Christian, Andrew

Instructor

Associate of Applied Science

Computer Networking and Systems Administration Technology

Christian, Bryan

Instructor

Certificate of Completion

Aviation Maintenance

Christian, Curtis

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Clancy, Nathanael

Instructor

Associate of Applied Science

Computer Networking and Systems Administration Technology

Clark, Bryan

Instructor

Associate of Applied Science

Architectural & Civil Drafting Technology

Clark, Douglas

Instructor

Bachelor of Science

Automation and Controls Technology

Claus, Edna

Professor

PhD- Doctor of Philosophy

Business Management Technology

Clawson, Savannah

Instructor

Associate of Applied Science

Instrumentation Technology

Clemons, Tomeka

Instructor-Adjunct

Bachelor of Science

Health Information Technology

Cockrell, Thomas

Instructor

Associate of Applied Science

Electrical Power and Controls

Coffman, Steven

Instructor

Associate of Applied Science

Computer Programming Technology

Collins, Curtis

Instructor

Associate of Applied Science

Industrial Systems

Colunga-Hernandez, Norma

Associate Professor

Master of Science

Cybersecurity

Conde, Lily

Instructor-Adjunct

Bachelor of Applied Technology

Dental Hygiene

Contois, Scott

Instructor

Master of Science

Mathematics

Cooper, Meagan

Instructor

Associate of Applied Science

Electrical Power & Controls

Cooper, Michael

Instructor

Associate of Applied

Electrical Power & Controls

Cordero, Joshua

Instructor

Associate of Applied Science

Computer Networking & Systems Administration Technology

Coronado, Frank

Instructor

Master of Arts

Psychology

Coronado, Luis

Instructor

Certificate of Completion

Auto Collision Management Technology

Cortez, Adrienne

Staff

Associate of Applied Science

Surgical Technology

Cotter, Matthew

Instructor

Certificate of Completion

Precision Machining Technology

Cowart, Susan

Director of Alignment

Master of Arts

General Education

Cox, Zachary

Instructor

Alternative Credentialing Experiential

Welding Technology

Crawford, Bobby

Instructor

Associate of Applied Science

Robotics Technology

Crosby, Charles

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Cross, Jared

Instructor

Certificate of Completion

Aviation Maintenance

Cross, Thomas

Instructor

Associate of Applied Science

Aviation Maintenance

Cruz, Amanda

Instructor

PhD-Doctor of Philosophy

English

Cruz, Juan

Instructor

Associate of Applied Science

Automotive Technology

Cureton, Mark

Instructor

Certificate of Completion

Auto Collision Management Technology

Curtis, John

Instructor

Associate of Applied Science

Diesel Equipment Technology

Czajkowski, Anthony

Instructor

Alternative Credentialing Experiential-FAA License

Aviation Maintenance

Dalgetty, Jamie

Instructor

Associate of Applied Science

Welding Technology

Davalos Aguilar, Jose

Instructor

Certificate of Completion

Plumbing & Pipefitting Technology

Davila, Yonatan

Instructor

Associate of Applied Science

Welding Technology

Davis, Chasey

Instructor

Associate of Applied Science

Culinary Arts

Dawe, Jon

Master Instructor

Associate of Applied Science

Automotive Technology

De la Cerda, Callie

Instructor

Master of Arts

Psychology

De la Torre, Sara

Instructor

Bachelor of Applied Arts and Sciences

Electrical Power & Controls

De Leon, Kimberly

Instructor

Associate of Applied Science

Architectural Design & Engineering Graphics Technology

Deleon, Rodney

Instructor

Alternative Credentialing Experiential-Journeyman Lineman

Electrical Lineworker Technology

De Los Santos, Rene

Instructor-Adjunct

DDS-Doctor of Dental Surgery

Dental Hygiene

Deadmon, Jeremy

Instructor

Associate of Applied Science

Electrical Power and Controls

Deanda, Candelario

Instructor

Alternative Credentialing Experiential-Certified Lineman

Electrical Lineworker Technology

Decanini, Laura

Instructor-Adjunct

Master of Science

Biology

Deibert, Alexander

Instructor

Associate of Applied Science

Welding Technology

Del Angel, Maria

Instructor

Master of Education

First Year Seminar

Delgado, Jenny

Instructor

Bachelor of Science

Health Information Technology

Delgado, Ryan

Instructor

Associate of Applied Science

Electrical Power and Controls

Delong, Ivy

Instructor

Bachelor of Science

Chemical Dependency Counseling

Denman, Blake

Instructor

Alternative Credentialing Experiential

Welding Technology

Derks, Raleigh

Instructor

Associate of Applied Science

Welding Technology

Desjardins, Tony

Instructor

EdD-Doctor of Education

Education and Training

Desper, Jeffrey

Instructor

Alternative Credentialing Experiential

Automation and Controls Technology

Diabate, Ismael

Instructor

Associate of Applied Science

Electrical Power & Controls

Diamond, Mark

Instructor

Bachelor of Business Administration

Culinary Arts

Diaz, Daniel

Instructor

Associate of Applied Science

Industrial Systems

DiLullo, Christopher

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Dixon, James

Instructor

Associate of Applied Science

Electrical Power and Controls

Dorazil, Bryan

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Dorman, Luther

Instructor-Adjunct

Certificate of Completion

Welding Technology

Doughty, David

Instructor

Associate of Applied Science

Aviation Maintenance

Duhon, James

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Dulock, Mary

Instructor

Associate of Applied Science

Architectural Design & Engineering Graphics Technology

Dunn, Nicholas

Instructor

Associate of Applied Science

Welding Technology

Dupre, Racheal

Instructor-Adjunct

Associate of Applied Science

Aviation Maintenance

Durham, Jarriet

Instructor

Associate of Applied Science

Industrial Systems

Eades, Matthew

Instructor

Alternative Credentialing Experiential

Diesel Equipment Technology

Edwards, Ronald

Instructor

Associate of Applied Science

Elizondo, Bernardino

Instructor

DDS-Doctor of Dental Surgery

Dental Hygiene

Ellwood, Russell

Instructor

Master of Science

Mathematics

Elston, Jeffrey

Instructor

Associate of Applied Science

Welding Technology

Engel, David

Instructor

Associate of Arts

Diesel Equipment Technology

Epley, Luke

Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Escamilla, Eva

Instructor

Bachelor of Science

Developmental Mathematics

Escamilla, Javier

Instructor

Associate of Applied Science

Welding Technology

Esparza, Juan

Instructor

Associate of Applied Science

Welding Technology

Espinosa, Cecilia

Instructor

Bachelor of Science

Building Construction Technology

Esquivel, Erica

Instructor

Master of Education

Education & Training

Estrada, Justin

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Estrella, Esmeralda

Instructor

Associate of Applied Science

Biomedical Equipment Technology

Ewing, Todd

Instructor

Master of Science

Biomedical Equipment Technology

Fannin, Jeremy

Instructor

Alternative Credentialing Experiential

Industrial Systems

Ferguson, William

Instructor

Associate of Applied Science

Aviation Maintenance

Fernandez, Cesar

Instructor

Associate of Applied Science

Ferrell, Richard

Instructor

Associate of Applied Science

Diesel Equipment Technology

Fields, Glenn

Instructor

Alternative Credentialing Experiential

Precision Machining Technology

Filut, Richard

Director of Alignment

Bachelor of Business Administration

Electrical Power & Controls

Flener, Samara

Instructor

Associate of Applied Science

Welding Technology

Fletcher, Cody

Instructor

Associate of Applied Science

Diesel Equipment Technology

Flores, Antonio

Instructor-Adjunct

Associate of Applied Science

Aviation Maintenance

Flores-Jinez, Jenaro

Instructor

Associate of Applied Science

Mechatronics Technology

Flores, Jose

Instructor

Associate of Applied Science

Follis, Daniel

Instructor

Associate of Applied Science

Cybersecurity

Folz, David

Instructor

Associate of Applied Science

Diesel Equipment Technology

Folz, Daylen

Instructor

Associate of Applied Science

Biomedical Equipment Technology

Fondren, John

Instructor

Certificate of Completion

Industrial Systems

Ford, Abigail

Master Instructor

Master of Arts

English

Formacio-Serna, Emmanuel

Instructor

Bachelor of Science-General Medicine

Biology

Foster, Brandon

Instructor

Associate of Applied Science

Diesel Equipment Technology

Fowler, Maxie

Instructor

Associate of Applied Science

Auto Collision & Management Technology

Francia, Joseph

Instructor

Associate of Applied Science

Welding Technology

Frausto, Robert

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Frias, Brenda

Teaching Lab Assistant

Associate of Applied Science

Surgical Technology

Fritz, Stacy

Instructor

Bachelor of Science

Developmental English

Fulbright, Christie

Instructor

Master of Science

Mathematics

Fuller, John

Instructor

Alternative Credentialing Experiential

Welding Technology

Gafford, Tia

Instructor-Adjunct

Master of Arts

English

Gaither, Garnet

Master Instructor

Bachelor of Fine Arts

Digital Media & Design Technology

Galenbeck, Jiggs

Instructor

Associate of Applied Science

Aviation Maintenance

Gamez, Santos

Instructor

Master of Education

Architectural Design & Engineering Graphics Technology

Garcia, David

Instructor-Adjunct

Master of Science

Biology

Garcia, Francisco

Instructor

Associate of Applied Science

Precision Machining Technology

Garcia, Javier

Instructor

Alternative Credentialing Experiential-Certified Lineman

Electrical Lineworker Technology

Garcia, Joseph

Instructor-Adjunct

Master of Science

Associate Degree Nursing

Garrick, Abriel

Instructor

Master of Arts

English

Garvin, David

Instructor

Alternative Credentialing Experiential-Master Electrician

Solar/Electrical Energy Technology

Garza, Gabriel

Instructor

Bachelor of Arts

Digital Media & Design Technology

Garza-Longoria, Jennifer

Instructor-Adjunct

Bachelor of Science

First Year Seminar

Garza, Justin

Instructor

Certificate of Completion

Welding Technology

Garza, Rene

Instructor

Master of Fine Arts

Art

Garza, Sergio

Teaching Lab Assistant

Alternative Credentialing Experiential-Licensed Paramedic

Emergency Medical Services

Gathright, Sean

Instructor

Associate of Applied Science

Aviation Maintenance

Gay, Michael

Director of Alignment

Master of Arts

Biology

Getman, Marta

Associate Professor

Master of Arts

Psychology

Glenn, Joshua

Instructor

Associate of Applied Science

Automotive Technology

Godfrey, Darrell

Instructor

Bachelor of Science

Electrical Construction Technology

Goforth, Donald

Instructor

Bachelor of Science

Industrial Systems Technology

Gomez, Arturo

Instructor

Certificate of Completion

Welding Technology

Gonzalez-Contreras, Adriana

Instructor

Associate of Applied Science

Emergency Medical Services

Gonzales, Amy

Instructor

Master of Education

Chemical Dependency Counseling

Gonzales, Jacob

Instructor

Alternative Credentialing Experiential

Welding Technology

Gonzales, Marissa

Instructor

Associate of Applied Science

Surgical Technology

Gonzales, Sarah

Instructor

Master of Arts

English

Gonzalez, Alfonso

Teaching Lab Assistant

Associate of Applied Science

Building Construction Technology

Gonzalez, Isaac

Instructor

Associate of Applied Science

Precision Machining Technology

Gonzalez, Marilee

Instructor

Bachelor of Science

Dental Hygiene

Goolsbee, Asa

Instructor

Certificate of Completion

Welding Technology

Graham, William

Instructor

Associate of Applied Science

Auto Collision & Management Technology

Gray, Kathryn

Instructor-Adjunct

Master of Education

Mathematics

Gremillion, Lance

Instructor

Bachelor of Arts

Automotive Technology

Griffin, Erica

Director of Alignment

Associate of Applied Science

Process Operations Technology

Griffin, George

Instructor

Bachelor of Applied Arts & Sciences

Biomedical Equipment Technology

Grimes, Jeremy

Instructor

Alternative Credentialing Experiential-Journeyman Lineman

Electrical Lineworker Technology

Guajardo, Aron

Instructor

Associate of Applied Science

Robotics Technology

Guajardo, Leo

Instructor

Associate of Applied Science

Aviation Maintenance

Guerrero, Manuel

Instructor

Associate of Applied Science

Welding Technology

Guerrero, Veronica

Instructor

Certificate of Completion

Licensed Vocational Nurse

Guevara, Victor

Instructor

Certificate of Completion

Automotive Technology

Guinn, Lyle

Instructor

Associate of Applied Science

Precision Machining Technology

Gutierrez, Jesus

Instructor

Master of Arts

Developmental English

Hall, Kurtis

Instructor

Associate of Applied Science

Computer Networking & Systems Administration Technology

Hand, Randy

Instructor

Associate of Applied Science

Aviation Maintenance

Hann, Lisa

Instructor

Bachelor of Science Associate Degree

Nursing

Harley, David

Instructor

Associate of Applied Science

Biomedical Equipment Technology

Harper, Dean

Instructor

Associate of Applied Science

Instrumentation Technology

Haugh, Jesse

Instructor

Associate of Applied Science

Diesel Equipment Technology

Hayes, Bradley

Program Team Lead

Associate of Applied Science

Diesel Equipment Technology

Hearnsberger, Brandon

Instructor

Associate of Applied Science

Process Operations Technology

Henderson, David

Instructor

Associate of Applied Science

Diesel Equipment Technology

Hensley, John

Instructor

Master of Science

First Year Seminar

Hermes, Ryan

Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Hernandez, Aaron

Instructor

Bachelor of Science

Architectural Design and Engineering Graphics Technology

Hernandez, April

Instructor

Bachelor of Science

Chemical Dependency Counseling

Hernandez, Christopher

Instructor

Associate of Applied Science

Hernandez, Luis

Instructor

PhD-Doctor of Philosophy

Chemistry

Hernandez, Marisol

Instructor

Master of Science

Biology

Hernandez, Monica

Instructor

Master of Arts

Speech

Hernandez, Oscar

Instructor

Bachelor of Science

Architectural Design and Engineering Graphics Technology

Hertel, Amy

Instructor

Bachelor of Science

Cybersecurity

Hicks, Miranda

Instructor-Adjunct

Associate of Applied Science

Emergency Medical Services

Hightower, Cody

Instructor

Associate of Applied Science

Welding Technology

Hightower, JoLynn

Director of Alignment

Bachelor of Business Administration

Business Management Technology

Hildebrandt, Jesse

Instructor

Certificate of Completion

Auto Collision Technology

Hill, Cody

Instructor

Certificate of Completion

Welding Technology

Hill, Travis

Instructor

Associate of Applied Science

Welding Technology

Hinojosa, Patricia

Instructor

Master of Science

First Year Seminar

Hinojosa, Vanessa

Instructor

Master of Science

Associate Degree Nursing

Hodges, Riley

Instructor

Alternative Credentialing Experiential

Electrical Lineworker Technology

Hogue, James

Instructor

Master of Science

Computer Networking & Systems Administration Technology

Holland, LaDonna

Instructor-Adjunct

Master of Science

Associate Degree Nursing

Hollingshead, Phyllis

Master Instructor

Bachelor of Science

Computer Programing Technology

Holtzman, David

Director of Alignment

Master of Business Administration

Culinary Arts

Horelica, Joannah
Instructor
Associate of Applied Science
Emergency Medical Services

Hornsey, Joseph
Director of Alignment
Alternative Credential Experiential
Cybersecurity

Hosseinpour, Mehrdad

Master Instructor

Master of Education

Mathematics

Houston, Brandon

Instructor-Certified Flight Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Hugghins, Steven

Instructor

Associate of Applied Science

Electrical Power & Controls

Human, Lucretia

Instructor

Master of Education

Dental Hygiene

Hummons, Terry

Instructor

Alternative Credentialing Experiential

Welding Technology

Humphrey, David

Instructor

Master of Arts

English

Hutcherson, Russell

Instructor

Associate of Applied Science

Welding Technology

Hutchings, Joe

Instructor

Alternative Credentialing Experiential-Master Plumber

Plumbing and Pipefitting Technology

Ivy, James

Instructor

Associate of Applied Science

Diesel Equipment Technology

Jackson, Eric

Instructor

Bachelor of Science

Cybersecurity

Jacobs, Jeffrey

Instructor

Bachelor of Science

Vocational Nursing

Jaimes, Richard

Instructor

Associate of Applied Science

Welding Technology

James, Jesse

Instructor

Master of Science

Biology

Jenkins, Larry

Instructor

Bachelor of Science

Industrial Systems

Johndrow, Paul

Instructor

Master of Science

Mathematics

Johnson, Luther

Instructor

Associate of Applied Science

Welding Technology

Jones, Billie

Instructor

Associate of Arts

Wind Energy Technology

Jones, Casey

Instructor

Bachelor of Science

Computer Programming Technology

Jones, Demetri

Instructor

Associate of Applied Science

Industrial Systems

Jones, Desiree

Instructor

Associate of Applied Science

Digital Media & Design Technology

Jones, Ronald

Instructor

Associate of Applied Science

Electrical Lineworker Technology

Jones, Ross

Instructor

Certificate of Completion

Aviation Maintenance

Juarez, Alvaro

Instructor

Associate of Applied Science

Precision Machining Technology

Juarez Jr, Andres

Instructor

Associate of Applied Science

Precision Machining Technology

Juhl, Jerry

Teaching Lab Assistant

Associate of Applied Science

Automotive Technology

Kahl, Carlyn E.

Master Instructor

Master of Arts

History

Kahler, Kent

Instructor

Associate of Applied Science

Diesel Equipment Technology

Keener, Curtis

Instructor

Associate of Applied Science

Occupational Safety and Environmental Compliance Technology

Keith, Melinda

Instructor

Bachelor of Science

Developmental Mathematics

Kimberley, Patricia

Senior Instructor

Associate of Applied Science

Computer Networking & Systems Administration Technology

Kirk, Richard

Professor

ED-Doctor of Education

Psychology

Kirkpatrick, Suzy

Instructor

Associate of Applied Science

Architectural Civil Drafting Technology

Kish, Christopher

Instructor

Alternative Credentialing Experiential

Welding Technology

Kluck, Kevin

Instructor

Associate of Applied Science

Diesel Equipment Technology

Kluck, Lane

Instructor

Associate of Applied Science

Diesel Equipment Technology

Knudsen, Martin

Associate Professor

Master of Science

Occupational Safety and Environmental Compliance Technology

Kolar, James

Instructor

Associate of Applied Science

Electrical Lineworker Technology

Kooyman, Keith

Program Team Lead

Bachelor of Science

Cybersecurity

Kotowicz, James

Instructor

Associate of Applied Science

Diesel Equipment Technology

Kotzur, Velma

Associate Professor

Master of Arts

Sociology

Labanieh, Yahya

Instructor

Master of Science

Cybersecurity

Landrum, Travis

Instructor

Alternative Credentialing Experiential-Certificate of Completion

Automotive Technology

Lara, Agustin

Instructor

Associate of Applied Science

Cybersecurity

Larrazolo, Francisco

Instructor

Master of Education

Developmental Math

Larrea, Juan

Instructor-Certified Flight Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Larson, Richard

Instructor

Master of Science

Welding Technology

Leal, Emeric

Instructor

Alternative Credentialing Experiential-Journeyman

Electrical Lineworker Technology

Leija, Eldwin

Instructor

Bachelor of Science

Automation & Controls Technology

Leija, Raymundo

Instructor

Certificate of Completion

Auto Collision Technology

Leining, Harry

Instructor

Alternative Credentialing Experiential

Precision Machining Technology

Lewis, Michael

Instructor

Bachelor of Applied Arts & Science

Digital Media Design Technology

Liedtke, Tyson

Instructor

Associate of Applied Science

Automotive Technology

Listenbee, Jay

Instructor

Bachelor of Business Administration

Process Operations Technology

Lloyd, Tony

Instructor

Associate of Applied Science

Electrical Power and Controls

Longoria, Ray

Instructor

Bachelor of Applied Technology

Biomedical Equipment Technology

Lopez, Dalton

Instructor

Associate of Applied Science

Emergency Medical Services

Lopez, Janis

Instructor-Adjunct

Master of Science

Dental Hygiene

Love, Christopher

Instructor

Associate of Applied Science

Cybersecurity Technology

Love, James

Instructor

Associate of Applied Science

Electrical Lineworker Technology

Lovell, Daniel

Instructor

Master Electrician

Solar Electrical Technology

Lowe, Nicole

Instructor-Adjunct

Master of Education

Developmental Mathematics

Loya, Miguel

Instructor

Associate of Applied Science

Architectural Civil Drafting Technology

Lozano, Jose

Instructor

Associate of Applied Science

Computer Science

Lucas, Christopher

Director of Alignment

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Luna, Cesar

Instructor

Certificate of Completion

Auto Collision & Management Technology

Lynch, Corey

Instructor

Associate of Applied Science

Automotive Technology

Lynn, Elizabeth

Instructor

Master of Science

Vocational Nursing

Lynn, Joshua

Instructor

Associate of Applied Science

Building Construction Technology

Lynn, Philip

Instructor

Bachelor of Science

Electrical Lineworker Technology

Madla, Cynthia

Instructor-Adjunct

Master of Science

Associate Degree Nursing

Magboo, Ramiro

Instructor

Master of Science

Mechatronics Technology

Mallow, Bryce

Instructor

Associate of Applied Science

Cybersecurity

Mankey, Jonathan

Instructor

Associate of Applied Science

Cybersecurity

Mares, Jesus

Instructor

Associate of Applied Science

Precision Machining Technology

Marquez, Salvador

Instructor

Associate of Applied Science

Welding Technology

Marshall, Tracy

Senior Instructor

Associate of Applied Arts

Auto Collision Technology

Martin, Daniel

Instructor

Associate of Applied Science

Vocational Nursing

Martin, Darrell

Instructor

Bachelor of Applied Arts & Sciences

Industrial Systems

Martin, Eric

Instructor

Alternative Credentialing Experiential -FAA License

Aviation Maintenance

Martin, Jordyn

Instructor

Bachelor of Science in Nursing

Vocational Nursing

Martin, Linda

Senior Instructor

Bachelor of Science

Instrumentation Technology

Martin, Victoria

Instructor

Master of Science

Dental Hygiene

Martinez, Albert

Instructor

Associate of Applied Science

Industrial Systems

Martinez, Alfredo

Instructor

Associate of Applied Science

Building Construction Technology

Martinez, Beatriz

Instructor-Adjunct

Master of Science

Health Information Technology

Martinez, Eufemio

Instructor

Certificate of Completion

Automotive Technology

Martinez, Luis

Instructor

Associate of Applied Science

Emergency Medical Services

Marze, Brawley

Instructor

Associate of Applied Science

Precision Machining Technology

Massey, Shane

Instructor

Alternative Credentialing Experiential

Electrical Construction Technology

Mast, Jason

Instructor

PhD-Doctor of Philosophy

Physics

Mater, Addison

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Matus, John

Instructor

Associate of Applied Science

Instrumentation Technology

Mayberry, Dan

Instructor

Alternative Credentialing Experiential

Electrical Construction Technology

Mayo, Corey

Instructor

Associate of Applied Science

Robotics Technology

McCracken, Joel

Instructor

Associate of Applied Science

Electrical Power & Controls

McCuen, Douglas

Instructor

Certificate of Completion

Heating, Ventilation, & Air Conditioning (HVAC) Technology

McGee, John

Director of Alignment

Associate of Applied Science

Welding Technology

McGinnis, John

Instructor

Bachelor of Science

Cybersecurity

McLennan, Stuart

Instructor

Bachelor of Science

Cybersecurity

McMahan, Brandon

Director of Alignment

Associate of Applied Science

Robotics Technology

McNeil, Richard

Instructor

Alternative Credentialing Experiential

Electrical Construction/Solar Technology

Mears, Jamie

Director of Alignment

Master of Science

Vocational Nursing

Medina, Frank

Instructor

Associate of Applied Science

Heating Ventilation & Air Condition (HVAC) Technology

Medrano, Adrian

Instructor

Associate of Applied Science

Computer Networking and Systems Administration Technology

Medrano, Judy

Instructor

Master of Science in Nursing

Associate Degree in Nursing

Mendez, Mike

Instructor

Alternative Credentialing Experiential-Journeyman Lineman

Electrical Lineworker Technology

Merrifield, Kacee

Instructor

Associate Degree in Nursing

Vocational Nursing

Mesa, Joe

Instructor

Alternative Credentialing Experiential

Precision Machining Technology

Miedema, Jake

Instructor-Certified Flight Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Miller, Philip

Instructor

Associate of Applied Science

Welding Technology

Millington, James

Instructor

Bachelor of Science

Cybersecurity

Mills, Matthew

Instructor

Associate of Applied Science

Automotive Technology

Milner, Melanie

Director of Alignment

Master of Science in Nursing

Associate Degree in Nursing

Mitchell, Dustin

Instructor

Alternative Credentialing Experiential

Electrical Lineworker Technology

Mitchell, Robert

Instructor

Bachelor of Science

Electrical Lineworker Technology

Mocuta, Marcel

Instructor

Alternative Credentialing Experiential-FAA license

Aviation Maintenance

Moeai Becca

Instructor

Alternative Credential Experiential

Building Construction Technology

Molini, Frank

Instructor

Certificate of Completion

Welding Technology

Moncus, Connie

Instructor

Master of Business Administration

Business Management Technology

Monk, Leslie

Instructor

Associate of Arts

Industrial Systems

Monroy, Justin

Instructor-Adjunct

Associate of Applied Science

Architectural Design & Engineering Graphics Technology

Montoya, Tony

Instructor

Alternative Credentialing Experiential

Plumbing & Pipefitting Technology

Moore, Joe

Instructor

Associate of Applied Science

Automotive Technology

Moore, Kenneth

Instructor

Associate of Applied Science

Welding Technology

Morelock, William

Instructor

Alternative Credentialing Experiential

Building Construction Technology

Morgan, David

Instructor-Adjunct

Bachelor of Science

Cybersecurity

Morman, Robert

Instructor

Associate of Applied Science

Vocational Nursing

Moss, Steven

Associate Professor

Master of Arts

History

Moxley, Timothy

Instructor

Associate of Applied Science

Diesel Equipment Technology

Murphy, David

Instructor

Bachelor of Science

Precision Machining Technology

Murphy, Michael

Master Instructor

Bachelor of Arts

Developmental Mathematics

Murrell, Brenda

Instructor

Bachelor of Science

Architectural Drafting and Engineering Graphics Technology

Myers, James

Instructor

Associate of Applied Science

Architectural/Civil Drafting Technology

Myers, Jessica

Instructor

Master of Arts

Dental Hygiene

Nacianceno, Adrian

Instructor

Associate of Applied Science

Aviation Maintenance

Nagel, Michael

Instructor

Alternative Credentialing Experiential

Welding Technology

Nauman, Sam

Associate Professor

Master of Science

Developmental Mathematics

Navarro, Luis

Instructor

Associate of Applied Science

Auto Collision & Management Technology

Necessary, Bryan

Instructor

Associate of Applied Science

Electrical Power & Controls

Neufeld, Martha

Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Newhart, Angel

Director of Alignment

Bachelor of Science

Aircraft Pilot Training Technology

Newman, Terrance

Instructor

Alternative Credentialing Experiential-Journeyman Lineman

Electrical Lineworker Technology

Nguyen, Dien

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Nicholson, Cally

Instructor

Master of Science

Psychology

Nieto, Javier

Instructor

Master of Science

Computer Science

Nixon, Daniel

Instructor

Associate of Applied Science

Precision Machining Technology

Nizigiyimana, Deogratias

Instructor

Associate of Applied Science

Precision Machining Technology

Nunez, Edward

Instructor

Associate of Applied Science

Electrical Lineworker Technology

Obare, Charles

Instructor

Master of Science

Mathematics

Odegaard, Peter

Instructor

Alternative Credentialing Experiential-Vocational Trade Diploma

Avionics

Ogburn, William

Instructor

Associate of Applied Science

Industrial Systems

Olguin, Chris

Instructor

Alternative Credentialing Experiential-Journeyman Lineman

Electrical Lineworker Technology

Oliver, Nathan

Instructor

Certificate of Completion

Welding Technology

O'Neal, Patricia

Instructor

Master of Arts

Mathematics

Ortiz, Mando

Instructor

Associate of Applied Science

Biomedical Equipment Technology

Owens, Jonathan

Instructor

Associate of Applied Science

Cybersecurity Technology

Oyerbides, Adam

Instructor

Certificate of Completion

Diesel Equipment Technology

Palady, Jayme

Instructor

Associate of Applied Science

Heating, Ventilation, & Air Conditioning (HVAC) Technology

Palomino, Jennifer

Instructor

PhD-Doctor of Philosophy

Physics

Panayoton, Dimitri

Instructor

Certificate of Completion

Aviation Maintenance

Panzer, Marla

Instructor-Adjunct

Master of Science

Associate Degree Nursing

Parks, Shelley

Director of Alignment

Bachelor of Arts

Developmental Education

Parsee, Jerome

Instructor

Master of Arts

First Year Seminar

Pate, John

Instructor

Associate of Applied Science

Computer Networking and Systems Administration Technology

Pavelka, Jakob

Instructor

Associate of Applied Science

Welding Technology

Peace, Johnny

Instructor

Alternative Credentialing Experiential

Diesel Equipment Technology

Peine, Mickle

Instructor

Associate of Applied Science

Instrumentation Technology

Pena, Jose

Instructor

Associate of Applied Science

Automotive Technology

Pena, Rafael

Instructor

Associate of Applied Science

Aviation Maintenance

Perales, Kristen

Instructor

Associate of Applied Science

Building Construction Technology

Perez, Carlos

Instructor

Master of Science

Biology

Perkins, Matthew

Instructor

Associate of Applied Science

Electrical Power & Controls

Pesnell, James

Instructor

Associate of Applied Science

Welding Technology

Peters, Douglas

Instructor

Associate of Applied Science

Cybersecurity

Peterson, Matthew

Instructor

Associate of Applied Science

Diesel Equipment Technology

Phillips, Andrew

Instructor

Bachelor of Business Administration

Cybersecurity

Phillips, Daniel

Instructor

Associate of Applied Science

Diesel Equipment Technology

Pickens, Richard

Instructor

Associate of Applied Science

Automotive Technology

Pierce, Cristina

Instructor

Master of Arts

English

Pierce, Joe

Master Instructor

Bachelor of Arts

Developmental English

Pillai, Hari

Instructor

Bachelor of Technology

Occupational Safety & Environmental Compliance Technology

Pittman, Christopher

Instructor

Certificate of Completion

Diesel Equipment Technology

Pizano, Samuel

Instructor

Associate of Applied Science

Architectural Design & Engineering Graphics Technology

Place, David

Instructor

Master of Science

Digital Media & Design Technology

Player, Rhonda

Instructor-Adjunct

Bachelor of Science

Developmental Mathematics

Podolsky, Ethan

Instructor-Adjunct

Bachelor of Arts

Developmental Mathematics

Polansky, George

Instructor

Certificate of Completion

Plumbing & Pipefitting Technology

Pompa, Shawn

Instructor-Adjunct

Master of Science

Associate Degree Nursing

Porras, Paul

Instructor

Associate of Applied Science

Culinary Arts

Porter, Chris

Instructor

Associate of Applied Science

Building Construction Technology

Porter, Kimberly

Instructor

Bachelor of Science

Aviation Maintenance

Porterfield, Elaine

Instructor-Certified Flight Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Porterfield, Rickie

Instructor

Master of Science

Building Construction Technology

Poston, Gregory

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Powledge, Troy

Instructor

Bachelor of Arts

Automation & Controls Technology

Pratt, Ashleigh

Director of Alignment

EdD-Doctor of Education

Education & Training

Price, Edward

Instructor

Associate of Applied Science

Diesel Equipment Technology

Proctor, Winona

Instructor

Master of Science

Associate Degree in Nursing

Purcell, Teresa

Instructor

Associate of Applied Science

Occupational Safety and Environmental Compliance Technology

Pustejovsky, Andrew

Instructor

Alternative Credentials Experiential-Master Electrician

Electrical Construction & Solar Technology

Pyatt, William

Instructor

Alternative Credentialing Experiential

Electrical Power and Controls Technology

Rademacker, Reid

Instructor-Certified Flight Instructor

DOT FAA Commercial Pilot

Aircraft Pilot Training Technology

Ramirez, Beyda

Instructor

Bachelor of Science

Health Information Technology

Ramirez, Maggie

Instructor

Alternative Credential Experiential

Electrical Power & Control

Ramirez, Maria

Instructor

Associate of Applied Science

Auto Collision & Management Technology

Ramirez, Priscilla

Instructor

Master of Science

Education & Training

Ramirez, Ruben

Instructor

Associate of Applied Science

Emergency Medical Services

Ramirez, Victor

Director of Alignment

Master of Science

Architectural Design & Engineering Graphics Technology

Ray, David

Instructor

Associate of Applied Science

Culinary Arts

Rayson II, Patrick

Instructor

Certificate of Completion

Electrical Lineworker Technology

Rebando, Joey

Instructor

Alternative Credentialing Experiential

Building Construction Technology

Reyna, Jesus

Instructor

Alternative Credentialing Experiential

Auto Collision & Management Technology

Reyna, Jose

Instructor

Associate of Applied Science

Diesel Equipment Technology

Reynolds, Thomas

Instructor

Master of Education

Aviation Maintenance

Rhoades, Julie

Master Instructor

Bachelor of Business Administration

Web Design and Development Technology

Rice, Charlene

Instructor

Master of Science

Associate Degree in Nursing

Rico, Mario Castillo

Instructor

Associate of Applied Science

Mechatronics Technology

Rivas, Isaac

Instructor

Associate of Applied Science

Welding Technology

Rivera, Martha

Instructor

Associate of Applied Science

Culinary Arts

Roach, James

Instructor

Associate of Applied Science

Instrumentation Technology

Roberts, Samuel

Instructor

Associate of Applied Science

Industrial Systems

Robinette, Aaron

Instructor

Associates of Applied Science

Electromechanical Technology

Rodriguez, Alfredo

Instructor

Associate of Applied Science

Mechatronics Technology

Rodriguez, Carlos

Instructor

Associate of Applied Science

Aviation Maintenance

Rodriguez, Frank

Instructor

Bachelor of Science

Developmental Mathematics

Rodriguez, Javier

Instructor

Alternative Credentialing Experiential

Wind Energy Technology

Rodriguez, Jennifer

Associate Professor

Master of Fine Arts

Art

Rodriguez, Joaquin

Instructor

Associate of Applied Science

Welding Technology

Rodriguez, Jose

Instructor

Associate of Applied Science

Welding Technology

Rodriguez, Rene

Instructor

Associate of Applied Science

Building Construction Technology

Rodriguez, Rosendo

Instructor

Associate of Applied Science

Automotive Technology

Romo, Jaime

Instructor

Master of Science

Physics

Rosas, Jennifer

Instructor-Adjunct

Master of Education

Business Management Technology

Ruble, Sherri

Senior Instructor

Associate of Applied Science

Computer Networking and Systems Administration Technology

Ruiz, Leigh

Director of Alignment

Master of Business Administration

Biomedical Equipment Technology

Salas, David

Instructor

Bachelor of Science

Vocational Nursing

Saldivar, Eduardo

Instructor

Master of Science

Biology

Saldivar, Raul

Instructor

Associate of Applied Science

Welding Technology

Salinas, Christon

Instructor

Master of Arts

Political Science

Salinas, Dominic

Instructor

Associate of Applied Science

Emergency Medical Services

Sanchez, David

Instructor

Bachelor of Applied Arts & Sciences

Biomedical Equipment Technology

Sanchez, Edward

Instructor

Associate of Applied Science

Welding Technology

Sanchez, Mario

Instructor

Certificate of Completion

Wind Energy Technology

Sanders, Aeisha

Instructor

Bachelor of Science

First Year Seminar

Sanders, Devin

Instructor

Associate of Applied Science

Biomedical Equipment Technology

Sanders, Lindsay

Instructor

Bachelor of Science in Nursing

Vocational Nursing

Sargent, John

Senior Instructor

Master of Arts

Architectural Design & Engineering Graphics Technology

Sauceda, Heather

Instructor

Associate of Applied Science

Vocational Nursing

Scalley, Timothy

Instructor

Associate of Applied Science

Emergency Medical Services

Schaaf, Connie

Director of Alignment

ED-Doctor of Education

Chemical Dependency Counseling

Scheler, Carol

Senior Instructor

Bachelor of Science

Cybersecurity Technology

Schier, Joshua

Instructor

Associate of Applied Science

Cybersecurity Technology

Schimschat, Ronnie

Instructor

Alternative Credential Experiential

Instrumentation Technology

Schmitt, Bruce

Instructor

Associate of Applied Science

Automotive Technology

Scruggs, Cathy

Instructor

Associate of Applied Science

Emergency Medical Services

Seamanski, Jon

Instructor

Associate of Applied Science

Building Construction Technology

Sembera, Devin

Instructor

Associate of Applied Science

Precision Machining Technology

Semmel, Travis

Instructor

Associate of Applied Science

Welding Technology

Senn, Jonathan

Instructor

Associate of Applied Science

Aviation Maintenance

Serrato, Agapito

Instructor

Master of Science

Chemistry

Sexton, Sharon

Associate Professor

Master of Education

Psychology

Shamiryan, Diana

Instructor-Adjunct

Master of Arts

English

Shields, Robert

Instructor

Associate of Applied Science

Electrical Power & Controls

Shorter, Linda

Senior Instructor

Associate of Applied Science

Cybersecurity

Sifuentes III, Jesus

Instructor

Certificate of Completion

Welding Technology

Silva, Elvia

Master Instructor

Master of Education

Business Management Technology

Simien, Joseph

Instructor

Associate of Applied Science

Heating Ventilation & Air Condition (HVAC) Technology

Simpson, Andrew

Instructor

Bachelor of Science

Aircraft Pilot Training Technology

Sims, William

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Skinner-Creeks, Andrea

Instructor

Bachelor of Science

Occupational Safety & Environmental Compliance Technology

Skinner, Tyson

Instructor

Associate of Applied Science

Architectural Design & Engineering Graphics Technology

Slagle, Steven

Instructor

Master of Arts

Political Science

Smith, Andy

Instructor

Alternative Credentialing Experiential

Aviation Maintenance

Smith, Leslie

Instructor-Adjunct

Master of Education

First Year Seminar

Smyth, Griffin

Instructor

Associate of Applied Science

Welding Technology

Snyder, Timothy

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Solis De Coronado, Lindsey

Teaching Lab Assistant

Associate of Applied Science

Biomedical Equipment Technology

Sparks, Charles

Instructor

Associate of Applied Science

Robotics Technology

Speckels, Jim

Instructor

Master of Arts

Developmental English

Stallard, Ethan

Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Stampley, Josh

Instructor

Associate of Applied Science

Architectural Design & Engineering Graphics Technology

Stancil, Karen

Instructor-Adjunct

PhD-Doctor of Philosophy

Biology

Stanislaw, Brandon

Instructor

Certificate of Completion

Welding Technology

Staton, Kevin

Instructor

Associate of Applied Science

Electrical Power and Controls

Steelman, Terry

Instructor

Associate of Applied Science

Industrial Systems

Steffek, Nolan

Instructor-Certified Flight Instructor

Associate of Applied Science

Aircraft Pilot Training

Stevens, Karen

Associate Professor

Associate of Applied Science

Computer Networking and Systems Administration Technology

Stewart, Heather

Instructor

Master of Arts

English

Stotts, Katrina

Instructor

Associate of Applied Science

Health Information Technology

Stovall, Randal

Instructor

Associate of Applied Science

Auto Collision & Management Technology

Strange, Joseph

Instructor

Associate of Applied Science

Automotive Technology

Strunck, John

Instructor

Associate of Applied Science

Welding Technology

Stuart, Gus

Instructor-Adjunct

Bachelor of Science

Emergency Medical Services

Styron, Toby

Instructor

Certificate of Completion

Electromechanical Technology

Suggs, Robert

Instructor

Associate of Applied Science

Diesel Equipment Technology

Sutton, Jase

Instructor

Master of Arts

History

Szymoniak, Steven

Instructor

Master of Business Administration

Business Management Technology

Taliancich, William

Senior Instructor

Master of Arts

English

Tamez, Amanda

Instructor

Bachelor of Science

Developmental Mathematics

Tamez, Leo

Instructor

Certificate of Completion

Diesel Equipment Technology

Tate, Patti

Instructor

Bachelor of Applied Arts & Science

Occupational Safety & Environmental Compliance Technology

Tawney, Jarrod

Instructor

Certificate of Completion

Heating, Ventilation, & Air Conditioning (HVAC) Technology

Teat, Jacob

Certified Flight Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Thomas, Miranda

Senior Instructor

Master of Science

Biology

Thompson, Jamie

Instructor

Associate of Applied Science

Chemical Dependency Counseling

Timmons, Darin

Instructor

Alternative Credentialing Experiential-Master Electrician

Solar/Electrical Technology

Torres, Tony

Instructor

Bachelor of Science

Web Design & Development Technology

Townsend, Juanita

Instructor

Master of Arts

Speech

Trainor, Linda

Instructor

Bachelor of Science

Developmental English

Tucker, David

Instructor

Associate of Applied Science

Electrical Power and Controls

Tull-Mincher, Anthony

Instructor

Bachelor of Science

Biomedical Equipment Technology

Turner, Heather

Senior Instructor

Master of Education

Developmental Math

Turner, Justin

Instructor

Associate of Applied Science

Culinary Arts

Uribe, Luis

Instructor

Master of Science

Biology

Useforge, Zachary

Instructor-Certified Flight Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Usery, Jacob

Director of Alignment

Bachelor of Science

Computer Networking & Systems Administration Technology

Vaitl, Stephen

Instructor-Adjunct

DC-Doctor of Chiropractic

Biology

Valadez, Micaela

Instructor

Master of Arts

History

Valenta, Kyler

Instructor

Associate of Applied Science

Instrumentation Technology

Valentine, Matthew

Instructor

Associate of Applied Science

Diesel Equipment Technology

Vallejo, Monica

Teaching Lab Assistant

Associate of Applied Science

Surgical Technology

Van Demark, Adam

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Vargas, Rick

Director of Alignment

Associate of Applied Science

Building Construction Technology

Vasquez, Troy

Instructor

Alternative Credentialing Experiential

Electrical Lineworker Technology

Vavra, JJ

Director of Alignment

Bachelor of Arts

Digital Media & Design Technology

Velasquez III, Bonifacio C.

Instructor

Associate of Applied Science

Precision Machining Technology

Velasquiz-Delgado, Domingo

Director of Alignment

PhD-Doctor of Philosophy

Occupational Safety & Environmental Compliance Technology

Verzal, Mack

Instructor

Alternative Credentialing Experiential

Electrical Lineworker Technology

Vetiaque, Rose-France

Instructor

Bachelor of Science

Vocational Nursing

Vidler, Douglas

Instructor

Associate of Applied Science

Industrial Maintenance Technology

Viera, Edgard

Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Villarreal, Angela

Director of Alignment

Master of Science

Dental Hygiene

Villarreal, Everardo

Director of Alignment

Master of Science

Chemistry

Villarreal, Ida

Instructor-Adjunct

Bachelor of Arts

First Year Seminar

Villarreal, Misael

Teaching Lab Assistant

Associate of Applied Science

Cybersecurity

Villarreal, Santiago

Instructor

Associate of Applied Science

Digital Media & Design Technology

Vorderkunz, Alex

Instructor

Associate of Applied Science

Biomedical Equipment Technology

Walders, Larry

Instructor

Associate of Applied Science

Electrical Power and Controls

Walker, Christi

Instructor-Adjunct

Master of Arts

English

Walters, Wade

Instructor-Certified Flight Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Ware, Joseph

Director of Alignment

Associate of Applied Science

Avionics Technology

Ware, Steven

Instructor

Bachelor of Science

Developmental Math

Warnasch, Craig

Instructor

Associate of Applied Science

Heating, Ventilation, & Air Conditioning (HVAC) Technology

Washington, John

Associate Professor

Master of Business Administration

Computer Networking and Systems Administration Technology

Waters, Charles

Instructor

Associate of Applied Science

Avionics Technology

Watkins, Susie

Associate Professor

Master of Arts

Computer Programming Technology

Weakley, Brian

Instructor

Associate of Applied Science

Industrial Systems

Weaver, Billy

Instructor

Associate of Applied Science

Heating Ventilation & Air Conditioning (HVAC) Technology

Weir, Shannon

Instructor

Associate of Applied Science

Diesel Equipment Technology

Werchan, Matthew

Instructor

Associate of Arts

Welding Technology

Wheelock, David

Instructor

Certificate of Completion

Wind Energy Technology

White, Anneliese

Associate Professor

Master of Arts

English

White, Joshua

Instructor

Associate of Applied Science

Diesel Equipment Technology

Whitworth, Terry

Instructor

Associate of Applied Science

Biomedical Equipment Technology

Wiersema, Joshua

Instructor

Certificate of Completion

Welding Technology

Wilfert, Mark

Instructor

Bachelor of Science

Occupational Safety & Environmental Compliance Technology

Wilkey, Jerry

Instructor

Associate of Applied Science

Industrial Systems

Wilkins, Scooter

Instructor

Certificate of Completion

Welding Technology

Williams, Samuel

Instructor

Associate of Applied Science

Welding Technology

Williamson, Steven

Instructor

Associate of Applied Science

Precision Machining Technology

Williamson, Troy

Associate Professor

Master of Arts

Mathematics

Wilmeth, Carl

Instructor

Associate of Applied Science

Welding Technology

Wilson, Donlee

Instructor

Master of Education

Industrial Systems

Wimberley, Christa

Instructor

Master of Science

Biology

Wimer, Jacob

Instructor

Alternative Credentialing Experiential

Heating, ventilation & Air Conditioning (HVAC) Technology

Winchester, Timothy

Instructor

Alternative Credentialing Experiential

Diesel Equipment Technology

Wines, David

Instructor

Bachelor of Science

Building Construction Technology

Wingate, Jenny

Instructor

Bachelor of Science in Nursing

Vocational Nursing

Withers, Paul

Senior Instructor

Associate of Applied Science

Electrical Power & Controls

Woodgate, Clifton

Instructor

Alternative Credentialing Experiential

Industrial Systems

Wornat, William

Instructor

Certificate of Completion

Welding Technology

Wright, Atly

Instructor-Certified Flight Instructor

Associate of Applied Science

Aircraft Pilot Training Technology

Wright, Charli

Instructor

Alternative Credentialing Experiential

Welding Technology

Wyche, Sessia

Instructor

Master of Science

Mathematics

Wythe, John

Instructor

Certificate of Completion

Precision Machining Technology

Zavala, Juan

Instructor

Alternative Credentialing Experiential-Journeyman Lineman

Electrical Lineworker Technology

Zoerner, Patrick

Instructor

Associate of Applied Science

Wind Energy Technology

15-1. Accelerated Training Soft Skills

Advanced Communication in Management

A study of advanced principles of oral and written communications for managers. Apply procedures for writing reports, proposals and conducting research; and produce oral presentations.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact: accceleratedtraining@tstc.edu

Advanced Computer Applications in Business

Utilize packaged software to prepare business applications. Create an advanced business application.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
accceleratedtraining@tstc.edu

Advanced Project Management

Application of project management tools and methods. Includes use of project management software, statistical applications, change management, processes, environmental effects and time and cost estimations in a project simulation. Demonstrate use of project management software; implement appropriate statistical analyses for quality control; compare and contrast internal and external environmental effects; apply industry-specific standards; and demonstrate the use of project management tools.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
accceleratedtraining@tstc.edu

Assisting Business with Growth Opportunities

Overview of challenges to business growth, business planning for growth, acquiring funds for growth, cash flow management, contingency planning and developing harvest strategies. Evaluate current business practices and financial status; discuss potential problems typically faced as businesses attempt to grow; develop alternative growth strategies; demonstrate effective business planning; identify capital sources for growing businesses; and discuss exit strategies and succession planning.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
accceleratedtraining@tstc.edu

Attributes of a Successful Supervisor

Supervisors can empower and energize their teams or they can create frustration, confusion or even paralysis. This seminar provides a way to understand the impact that their behavior has on others, and they discover how others may respond to their style. Participants will learn four different approaches to supervision, discover their unique strengths and challenges and understand how they can be overused. Becoming a new supervisor means added responsibilities, different challenges and unique rewards.

Elements in this course include:

- Understand the supervisor mindset.
- Know the ANT philosophy versus the ENT philosophy of managing and which is better.
- Develop leadership expectations and attitudes.
- Fundamental duties including how problem solving, decision making, motivating, delegating, championing change can be incorporated.
- Learn how to communicate effectively with team members and employees.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
acceleratedtraining@tstc.edu

Basic Supervision

Exploration of supervisory functions as applied to leadership, counseling, motivation and human skills. Explain the role, characteristics and skills of a supervisor.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Building a Collaborative Team

A high-functioning team makes real progress and everyone is glad to be on the team. This workshop provides the key to building and maintaining peak performing teams by helping individuals identify their strengths and challenges. We will explore how team members can work together more productively by tapping their strengths to contribute to the overall success of the team. Participants will learn the five different roles within teams and the diversity of inherent talents each role brings to the team. They will develop teamwork strategies to help create, advance, refine and implement new ideas or projects. Participants will discover effective ways to balance, integrate and capitalize on different strengths of each member.

Elements in this course include:

- Know the strengths of team members.
- Uncover hidden talents.
- Understand how tasks impacts co-workers and team.
- Match individual strengths with team roles.
- Learn strategies for collaboration and open dialogue.
- Use the Z process for projects and innovation.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Business Ethics

Discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social responsibility in management practices and business activities. Includes ethical corporate responsibility. Define business ethics; identify the consequences of unethical business practices; describe reasoning for analyzing ethical dilemmas; describe different ethical views; explain how business government, and society function interactively; and explain corporate social responsibility.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,200

For more information, please contact:
acceleratedtraining@tstc.edu

Business Leadership Application

Application of leadership skills that address social, political, economic, environmental and legal issues. Demonstrate leadership skills through planning, implementing and evaluating a project that addresses current social, political, ethical, international and economic issues in business and community settings.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Change Management

Knowledge, skills and tools that enable a leader/organization to facilitate change in a participative style.
Explain the roles of change agent and champion within the organization; explain the progression of change from introduction to completion; examine barriers to successful implementation; and demonstrate ability to analyze internal and external environments as well as stakeholder issues in showing need for change.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Communicate with Style

This seminar provides an engaging framework for learners to reach further across their organizations and improve effectiveness. This session will create a personalized learning experience to help participants understand and appreciate the different priorities, preferences and values each individual brings to the workplace and how they can learn to adapt to the style of others. This session delivers a comprehensive, workplace development solution to engage every employee — regardless of title or position, department or function — in building more productive and effective relationships at work.

Elements in this course include:

- Learn about the DiSC model and 4 quadrants of behavior.
- Understand DiSC in the workplace.
- Know energizers and drainers.
- Recognize strengths and challenges of each communication style.
- Learn how to read the style of other team members.
- Adapt communication style as needed.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Communications in Management

Basic theory and processes of communication skills necessary for the management of an organization's workforce. Explain the communication process; create solutions to major communication barriers; describe how communication contributes to effective management.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Computer Operating Systems

Instruction in operating system utilities, function calls and operating system components. Includes file structuring capabilities, disk space organization and allocation, serial and parallel port handling, error handling and memory management. Install and configure operating systems; allocate and organize primary and secondary storage; configure peripheral devices; manage file structures; and use utilities.

Course Hours: 32

Class Delivery Method: In Person or Online

Tuition Fee: $1,000

For more information, please contact:
acceleratedtraining@tstc.edu

Concepts of Total Quality Management

Principles and elements of total quality management. Explain the concepts of total quality management.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Conflict Resolution

The training session explores the way supervisors and employees can work together to resolve conflict in the workplace. Practical steps and techniques, such as negotiation, will be included to help facilitate conflict resolution and ways to improve work relationships. Training will include awareness that conflict and difficult situations are a natural part of our lives both in personal and work environments. The focus will be on resolution and an understanding that the goal is finding a peaceful solution.

Elements in this course include:

- Practical ways to produce a solution that all those involved can agree to.
- To address the issue while maintaining sensitivity to the relationship.
- To understand the importance of finding peaceful and workable solutions.
- To develop a model to follow when dealing with difficult situations.
- To explore and develop practical negotiation skills that seek a positive outcome.

Course Hours: 4

Class Delivery Method: In Person or Online

Tuition Fee: $150

For more information, please contact:
acceleratedtraining@tstc.edu

Conflict Resolution for Manager and Supervisors

Provides a straightforward approach that helps participants develop the understanding and self-awareness necessary to resolve interpersonal conflict. In addition to learning how to work through conflict on an individual basis, a strong foundation for resolving issues within an entire team is offered. This builds important skills that are necessary for effective communication and teamwork by providing the keys to maintaining a well-balanced workplace by helping individuals understand their behavior in conflict and providing the problem solving skills needed to manage adversity within the team.

Elements in this course include:

- Explore different approaches to conflict.
- Understand how our natural styles influence those approaches.
- Discover the importance of finding common goals in conflict situations.
- Learn to share all perspectives in conflict situations.
- Explore ways to improve ability to generate solutions.
- Discover the benefits of a balanced approach.
- Make better decisions that satisfy the needs of all involved.
- Develop new strategies for working through conflict.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Corporate and Community Development with Critical Thinking

Development of corporate and community leadership skills that incorporate critical-thinking strategies. Includes data and informative decision making, group and team processes, strategic and action planning, and processes for monitoring progress. Explain leadership characteristics for encouraging and supporting business development; identify ethical and effective community leaders who value and utilize critical thinking strategies; apply communication skills and tools; use data for making effective decisions; identify roles and processes used in groups and team building; and use processes for

strategic planning and progress monitoring.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
acceleratedtraining@tstc.edu

Customer Service Skills

The training session will focus specifically on teaching employees the skills and competencies needed to effectively work in the customer service environment. Key to this environment are the areas of communication, listening, interacting with customers and creating a strong service focus. Emphasis will be placed on developing a solid foundation of customer understanding (needs) and how to communicate effectively with customers.

Elements in this course include:

- Trust and rapport building (relationship building).
- Active listening skills.
- Managing customer expectations.
- Creating customer loyalty.
- Communication etiquette (verbal, telephone and written).
- Understand and effectively work within a customer service environment.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
acceleratedtraining@tstc.edu

Decision Making

Decision making is a skill and to become better at it requires knowing how to make a decision and practice over time to build confidence. Good and quick decisions require research and not focusing too much on a specific portion of the problem or issue. Business difficulties can be addressed by exploring the different approaches to making decisions, understanding traps people fall into when making decisions and learning to use a defined process for better decision making. Participants will understand how personal filters and perception can affect their decision-making process, different methods for decision making, how to stop a bad decision before it goes terribly wrong, how to sell and own their decisions and the importance of planning and execution.

Elements in this course include:

- Understand the impact of minor and major decisions.
- Awareness of selective perception and filters.
- Learn a four step process to better decision making at all levels.
- Know the role intuition and risk tolerance play in decisions.
- Gaining alignment for the decision.
- Know how to manage and implement decisions for successful execution.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Delegation

Concepts of delegation and empowerment of employees and teams. Prepares the student to delegate effectively and to foster a mind-set of empowerment in employees. Describe factors to consider when delegating a task; develop a strategy for effective delegation; outline the steps for effective empowerment; and identify different types of authority.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Dental Office Management

Use computers/and or manual systems to process dental information and interpret and practice learned dental office management skills. Perform dental office administrative duties; demonstrate accounting and financial operations; comply with federal and state guidelines regarding health care providers; and operate dental technology and software systems.

Course Hours: 32

Class Delivery Method: In Person or Online

Tuition Fee: $1,000

For more information, please contact:
acceleratedtraining@tstc.edu

Employee Performance Review

Methods for conducting workplace performance reviews. Includes identifying performance situations requiring action and preparing for a collaborative performance review. Explain the importance of focusing discussions on specific points and desired outcomes; analyze reasons of reluctance to address poor performance; and describe the impact of poor performance on the organization.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Excel-Basic

This is an introductory level course designed to familiarize trainees on the use and application of Microsoft Excel software. An assessment of each trainee's knowledge and skill level will be taken on the first day of class, as well as at the end of the class. Results will be reported back to the sponsor company.

Elements in this course include:

- Use the Help system and navigate worksheets and workbooks.
- Recognize spreadsheet terminology.
- Start Microsoft Excel and identify the components of the Excel interface.
- Enter and edit text, values, formulas and pictures.
- Understand how to save workbooks in various formats.
- Move and copy data, learn about absolute and relative references and work with ranges, rows and columns.
- Use simple functions, basic formatting techniques and printing.
- Create and modify charts and learn how to manage large workbooks.
- Check spelling, find and replace text and data, preview and print a worksheet, set page orientation and margins, create and format headers and footers and print gridlines.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Excel-Intermediate

This course builds on the skills and concepts taught in Microsoft Excel – Basic. An assessment of each trainee's knowledge and skill level will be taken on the first day of class, as well as at the end of the class. Results will be reported back to the sponsor company.

Elements in this course include:

- Enter and edit text and values, use AutoFill, enter formulas and examine the order of operations, save and update a workbook, and save a workbook in different file formats.
- Move and copy data, use the Office Clipboard, move and copy formulas, use AutoFill to copy formulas, use Paste Link, view formulas, work with relative and absolute references and insert and delete ranges, rows and columns.
- Use the SUM function, AutoSum and the AVERAGE, MIN, MAX, COUNT and COUNTA functions to perform calculations in a worksheet.
- Format text, cells, rows and columns, merge cells, apply color and borders, format numbers, create conditional formats and use the Format Painter.
- Create, format, modify and print charts based on worksheet data, work with various chart elements and apply chart types and chart styles.
- Create, format and modify pivot tables.
- Insert and modify a picture, represent data graphically within cells by applying three forms of conditional formatting (data bars, color scales and icon sets) and insert and modify SmartArt graphics.
- Check spelling, find and replace text and data, preview and print a worksheet, set page orientation and margins, create and format headers and footers and print gridlines.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
acceleratedtraining@tstc.edu

Financial Management

Examination of accounting information to support managerial decision-making processes. Topics include managerial concepts and systems, various analyses for decision making and planning and control. Examine how internal controls affect cost and budgeting; analyze profit and loss statements; solve financial problems; and utilize formulas to determine an organization's financial condition.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Front Office Management

Functions of front office operations as they relate to customer service. Includes a study of front office interactions with other departments in the lodging operation. Identify the various service levels and market segments in the lodging industry as they pertain to the front office area of the hospitality operation; and identify front office responsibilities, accounting procedures, revenue management, checkout and settlement procedures and night audit functions and verification.

Course Hours: 32

Class Delivery Method: In Person or Online

Tuition Fee: $1,000

For more information, please contact:
acceleratedtraining@tstc.edu

Fundamentals of Dental Office Procedures

Fundamental front desk procedures. Employ patient reception principles; foster personal relations; demonstrate telephone techniques; maintain dental records; manage supplies and inventory; and schedule appointments.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
acceleratedtraining@tstc.edu

Fundamentals of Management

Management functions and decision-making processes including planning, organizing, leading, staffing and controlling. Describe management functions; and solve problems according to contemporary management processes.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Fundamentals of Management Workshop

This seminar provides the framework for organizations to build strength among managers at all levels. Participants learn in what way their management style influences how they manage time, make decisions, approach problems and what they need to do to adapt to the styles of others to bring out the best in each and every employee. Participants receive the tools they need to coach and develop competent, motivated employees by gaining a deeper understanding of individual strengths and challenges.

Elements in this course include:

- Learn one's personal management style based on a proven model.
- Know priorities, strengths and challenges as it relates to management and the DiSC Model.
- Understand how to direct and delegate by style.
- Create a motivating environment that engages employees.
- Have strategies to adapt communications and address conflict.
- Help individuals work better with their own manager.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
acceleratedtraining@tstc.edu

General Business

An overview of the history of business including economic systems, types of ownerships and laws affecting business. Describe the history of business and the evolution of business organizations.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
acceleratedtraining@tstc.edu

Health IT Leadership

For those preparing for leadership roles, principles of leadership and effective management of teams. Emphasis on the leadership modes and styles best suited for IT deployment. Explain leadership traits and theories. Recognize leadership's role in IT and EHR project success and failure. Describe importance of effective team leadership.

Course Hours: 32

Class Delivery Method: In Person or Online

Tuition Fee: $1,000

For more information, please contact:
acceleratedtraining@tstc.edu

Hospitality Management and Leadership

An overview of management and leadership in the hospitality industry with an emphasis on management philosophy, policy formulation, communications, motivation and team building. Compare and contrast the various styles of leadership and management; develop mission statements supported by goals and objectives; identify motivation and team building practices as they relate to the hospitality industry; and evaluate the communication styles of leaders and managers.

Course Hours: 32

Class Delivery Method: In Person or Online

Tuition Fee: $1,000

For more information, please contact:
acceleratedtraining@tstc.edu

Improving Listening Skills

Participants recognize the importance of developing good listening skills by reflecting on their past listening experiences. The five different approaches to listening and the specific characteristics of each approach are discussed. Participants will identify their most natural listening approach, explore their strengths and challenges as listeners and practice modifying their listening approaches to meet the situation. Attendees will create action plans to improve their ability to communicate effectively using the different approaches.

Elements in this course include:

- Know the value of listening in the workplace.
- Understand the difference between hearing and listening.
- Understand listening filters.
- Learn five different listening approaches.
- Learn when to adapt your listening approach.
- Find strategies for improving skills.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Information and Project Management

Critical path methods for planning and controlling projects. Includes time/cost tradeoffs, resource utilization, stochastic considerations, task determination, time management, scheduling management, status reports, budget management, customer service, professional attitude and project supervision. Identify project tasks; sequence project activities; estimate the duration of project activities; identify interdependencies; and demonstrate means to coordinate change across a project.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Integrate Software Application II

Intermediate study of computer applications from business productivity software suites. Instruction in embedding data and linking and combining documents using word processing, spreadsheets, databases and/or presentation media software. Use intermediate word processing, spreadsheet, database and/or presentation software techniques; and apply integration techniques to produce documents.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Introduction to Business

Fundamental business principles including structure, functions, resources and operational processes. Identify business functions of accounting, management, marketing and economics; describe the relationships of social responsibility, ethics and law; and describe the scope of global business enterprise.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Introduction to Computers

Overview of computer information systems. Introduces computer hardware, software, procedures and human resources. Identify the components of a computer system; use common applications; explain the impact of computers on society; identify computer careers; identify fundamental programming structures; identify ethical use of computers; and use basic operating system functions.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Introduction to Customer Services

The process of providing service to a diverse customer base. Describe types of customers, identify customers' needs, and determine strategies to provide quality customer service.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Introduction to Project Management

Methods for planning and controlling projects. Includes project management concepts and models, critical path, analysis of time/cost benefits and resource utilization.
Define project management compared to general management; describe the phases of the project life cycle; define the roles of the project manager and the project team; define deliverables and stakeholders; and identify project management resources.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Introduction to Project Management Software

Use of project management software for developing a project plan including timelines, milestones, scheduling, life cycle phases, management frameworks, skills, processes and tools. Use project management software to plan and manage a project; organize and evaluate project phases; produce and analyze reports and charts; and distinguish task relationships.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Introduction to Supervision

Supervisory tasks, leadership and motivational skills, communication processes, organizational design and effective solution strategies. Explain supervision and leadership styles; explain motivational techniques; cite examples of how motivational techniques can be used by a supervisor; explain elements of the communication process and the guidelines for organizational design; and apply managerial terminology.

Credit Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Introduction to the Internet

Introduction to the internet with emphasis on using the world wide web to locate, transfer and publish information. Survey of emerging technologies on the internet. Use and configure web browsers; use the internet to locate, transfer and publish information; create a basic HTML document; use e-mail services; and explain issues in choosing an internet service provider.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

IT Project Management

Use of project management tools for developing a project plan, including timelines, milestones, scheduling, life cycle phases, management frameworks, skills and processes. Use project management tools to plan and manage a project; organize and evaluate project phases; produce documents applicable to the project; determine project tasks; and demonstrate teamwork.

Course Hours: 64

Class Delivery Method: In Person or Online

Tuition Fee: $1,900

For more information, please contact:
acceleratedtraining@tstc.edu

Leadership

Leadership and its relationship to management. Prepares the student with leadership and communication skills needed to motivate and identify leadership styles. Determine individual leadership styles; distinguish differences between leadership and management; explain the effects of leadership style in various organizational environments; and apply principles of leadership.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Leadership Development with Critical Thinking

Analysis of corporate and community case studies that illustrate the application of critical thinking strategies to analyze situations, solve problems and improve situations with complex interrelationships. Use critical thinking processes to analyze complex corporate and community case studies and develop strategic and action plans.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
acceleratedtraining@tstc.edu

Leadership Skills for Supervisor/Managers

Concepts and skills of leadership in the work setting. Introduces leadership and motivational theories and leadership styles. Includes evaluation of leadership performance. Describe leadership styles; apply leadership theories; and demonstrate communication strategies.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Negotiation and Conflict Management

Theories which aid in the diagnosis of interpersonal and intergroup conflict. The role of manager as negotiator, intermediary and problem-solver. Recognize communication skills in negotiations and conflict resolution and demonstrate strategies in negotiations.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Office Management

Systems, procedures and practices related to organizing and planning office work, supervising employee performance and exercising leadership skills. Identify skills and competencies of an office manager; describe different forms of organizations; and develop processes for office operations.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:

accceleratedtraining@tstc.edu

Powerpoint-Basic

This introductory course covers the basic functions of Microsoft PowerPoint software, including the Window components and the Help system. An assessment of each trainee's knowledge and skill level will be taken on the first day of class, as well as at the end of the class. Results will be reported back to the sponsor company.

Elements in this course include:

- Create, save and rearrange presentations.
- Format text, use drawing objects, work with graphics and insert tables and charts.
- Use templates and themes, slide masters and transition effects.
- Proof, run and print presentations.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Powerpoint-Intermediate

This course builds on the skills and concepts taught in PowerPoint - Basic. An assessment of each trainee's knowledge and skill level will be taken on the first day of class, as well as at the end of the class. Results will be reported back to the sponsor company.

Elements in this course include:

- Customize PowerPoint by modifying the Ribbon and changing application settings.
- Apply themes and templates, and how they will work with SmartArt graphics and tables.
- Add multimedia content and interactive elements to slides, and learn about presentation distribution options, including PDF, HTML and online broadcasts.
- Integrate PowerPoint with Word and Excel.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
acceleratedtraining@tstc.edu

Principles of Management

Concepts, terminology, principles, theories and issues in the field of management. Explain various theories, processes and functions of management; apply theories to a business environment; identify leadership roles in organizations; and describe elements of the communication process.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Principles of Quality Management

Includes planning and implementing quality programs in an organization and analyzing cost/benefit of quality. Also covers the impact of employee empowerment. Define the role of quality in production and service systems; explain concepts related to quality cost/benefit; and define the quality improvement process.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Problem Solving

Participants learn proven techniques for generating new ideas and increasing their capacity for creativity and innovation. This workshop provides a blueprint for establishing an environment of problem solving and generating new ideas. Participants engage in an interactive, hands-on process where they discover new ways of breaking through mental barriers and overcoming roadblocks to improve performance and unleash creative potential.

Elements in this course include:
- Understanding common approaches to solving problems.
- Get employees in the habit of isolating the problem and looking for the cause.
- Avoidance of treating simply the symptoms.
- Give employees a process for problem solving leading to better decisions.
- Use the art of questioning to identify alternate solutions.
- Watching the role our own motivations plays in implementing a solution.
- Utilize team strengths to solve problems.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Problem Solving and Decision Making

Decision-making and problem-solving processes in organizations utilizing logical and creative problem-solving techniques. Application of theory is provided by experiential activities using managerial decision tools. Identify individual, group and organizational decision-making processes; write, present and defend project recommendations; and apply process to solving problems using managerial decision tools and critical-thinking skills.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
accelleratedtraining@tstc.edu

Professionalism in Workplace

Develop entry-level skills for the workforce. Includes professionalism, interpersonal skills, communication, workplace civility and employability skills. Identify attitudes and values that contribute to effective work habits; demonstrate how to work as part of a team; exhibit business etiquette, workplace civility and ethics; and identify appropriate workplace attire.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
accelleratedtraining@tstc.edu

Reducing Workplace Conflict

This seminar provides a straightforward approach that helps participants develop the understanding and self-awareness necessary to resolve interpersonal conflict. In addition to learning how to work through conflict on an individual basis, a strong foundation for resolving issues within an entire team are reviewed. This builds the keys to maintaining a well-balanced workplace by helping individuals understand their behavior in conflict and providing the problem solving skills needed to manage adversity within the team.

Elements in this course include:
- Understand the four approaches to conflict.
- Discover the importance of finding conflict resolution goals.
- Stages of conflict and reactions to intense stress.
- Explore ways to generate effective solutions.
- Develop strategies for a balanced approach to working through conflict.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
accelleratedtraining@tstc.edu

Specialized Training in General Business and Leadership

Intensive training in the specific concepts and skills related to general business/leadership functions. This course was designed to be repeated multiple times if content varies. Identify business principles, current issues or topics in general business/leadership.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
accelleratedtraining@tstc.edu

Strategic Management

Strategic management process, including analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment. Explain the processes involved in management strategy development; and develop an organizational strategic management plan.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Supervision

The role of the supervisor. Includes managerial functions as applied to leadership, counseling, motivation and human relations skills. Explain the role, characteristics and skills of a supervisor; identify the principles of management at the supervisory level; explain the human relations skills necessary for supervision; explain motivational techniques; and cite examples of how motivational techniques can be used by a supervisor in a working environment.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Team Building

Principles of building and sustaining teams in organizations. Includes team dynamics, process improvement, trust and collaboration, conflict resolution and the role of the individual in the team. Describe the principles and processes of team building; identify interpersonal skills, group dynamics and team leadership; and demonstrate techniques for team problem solving and conflict resolution.

Course Hours: 48

Class Delivery Method: In Person or Online

Tuition Fee: $1,400

For more information, please contact:
acceleratedtraining@tstc.edu

Team Building in the Workplace

Principles of building and sustaining teams in organizations. Includes team dynamics, process improvement, trust and collaboration, conflict resolution and the role of the individual in the team. Describe the principles and processes of team building; identify interpersonal skills, group dynamics and team leadership; and demonstrate techniques for team problem

solving and conflict resolution.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Time Management Skills for Enhanced Effectiveness

Participants will gain an understanding of the relationship of goals, planning, analyzing and prioritizing for time management and identify their personal time wasters. Strategies and tools for improving time management and scheduling are discussed. This training helps people assess their time-management effectiveness and create a personal plan for improving skills in key areas.

Elements in this course include:

- Understand the importance of goals, planning and prioritizing.
- Identify common time wasters.
- Utilize strategies for improving time management.
- Recognize over commitment and how to avoid it.
- Learn to leverage production time.
- Review a proven time management matrix.
- Ability to focus on the Key Result Areas (KRAs).

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
acceleratedtraining@tstc.edu

Word-Basic

This is an introductory level course designed to familiarize trainees on the use and application of Microsoft Word software. An assessment of each trainee's knowledge and skill level will be taken on the first day of class, as well as at the end of the class. Results will be reported back to the sponsor company.

Elements in this course include:

- Use the Help system and navigate documents.
- Enter and edit text, create and save documents and learn how to enhance the appearance of a document by using various formatting options.
- Create tables, insert headers and footers, proof and print documents and insert graphics.
- Insert graphics and clip art, move graphics, wrap text around graphics and modify graphics.
- Examine and compare text formatting, work with character styles and work with a document outline.
- Proof a document by checking spelling and grammar, use AutoCorrect, preview and print documents, create PDF and XPS documents and edit PDF documents in Word.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
accelleratedtraining@tstc.edu

Word-Intermediate

This is an intermediate to advanced level course designed to build on the skills and concepts taught in Microsoft Word - Basic. An assessment of each trainee's knowledge and skill level will be taken on the first day of training, as well as at the end of class. Results will be reported back to the sponsor company.

Elements in this course include:

- Use the elements of the Word window, create and save documents and navigate a document and select text by using the keyboard and the mouse.
- Insert and delete text, create hyperlinks, use the Undo and Redo commands, cut, copy and paste text and find and replace text.
- Use document templates, manage document revisions and work with web features.
- Create tables, work with text in a table, adjust a table's structure, apply table formatting and styles and work with data in a table.
- Add headers and footers, set and change document margins, change page orientation, set text flow options and add and delete manual page breaks.
- Work with styles, sections and columns and will use the Navigation pane to work with outlines.
- Examine and compare text formatting, work with character styles and work with a document outline.
- Format tables, print labels and envelopes and work with graphics.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
accelleratedtraining@tstc.edu

Workforce Development with Critical Thinking

Development of leadership skills and critical thinking strategies that promote employment readiness, retention, advancement and promotion. Identify characteristics of employees who are qualified for employment, promotion and retention in the workforce; explain critical thinking strategies within the context of strong leadership; apply business communication skills; utilize data and information to make decisions; and identify roles and strategies used in group processes and team building.

Course Hours: 16

Class Delivery Method: In Person or Online

Tuition Fee: $500

For more information, please contact:
accelleratedtraining@tstc.edu

Workplace Communications

Communication skills as applicable to individuals or groups in the workplace. Includes skills in listening, writing and verbal/non-verbal communications. Identify communication styles; and demonstrate listening, writing and verbal/non-verbal communication skills.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
accceleratedtraining@tstc.edu

Workplace Critical Thinking and Problem Solving

Interpreting data for effective problem solving and recommending corrective action. Emphasizes structured approaches to critical thinking and problem solving in the workplace. Describe critical thinking and problem solving theories; identify analytical and systems-based problem-solving tools; and define methods to improve productivity and profitability.

Course Hours: 8

Class Delivery Method: In Person or Online

Tuition Fee: $250

For more information, please contact:
accceleratedtraining@tstc.edu

15. Accelerated Training Solutions

Automotive Service Technician

- CLASS DELIVERY: In Person
- CLASS DURATION: 176 Hours
- CLASS SIZE: 10-15

Course Description

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. Utilize appropriate safety procedures; describe historical development and career information of the automotive industry; demonstrate safe, professional and responsible work practices; demonstrate the proper use of shop equipment and tools; describe the eight Automotive Service Excellence (ASE) vehicle subsystems; use service information and perform basic automotive maintenance.

Campus Location(s): Harlingen

Credentials: Automotive Service Excellence (ASE), TSTC Certification of Completion

For more information, please contact:

accceleratedtraining@tstc.edu

Aviation Structural Assembly

- CLASS DELIVERY: In Person
- CLASS DURATION: 480 hours
- CLASS SIZE: 15-25

Course Description

The aviation structural assembly course offers trainees the opportunity to enter the high-tech aerospace sector with no specific prerequisites. It challenges them to present a winning attitude and develop mechanical dexterity and sound logic skills.

Topics include:

- Shop safety
- Blueprint reading
- Conventional rivets
- Blind rivets
- Bolts
- Safety devices
- Hi-lites
- Jo-bolts
- Chemical conversion
- Electrical bonding

Campus Location(s): North Texas

Credentials: Snap-On Sheet Metal Industry Certification, TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Basic Electrical Theory

The AC/DC Electrical course teaches fundamentals of AC/DC electrical systems used for power and controls in industrial, commercial, agricultural and residential applications. Students learn industry-relevant skills included in subject areas such as basic electrical circuits, electrical measurements, circuit analysis, inductance and capacitance, combination circuits and transformers. This course supports the SACA Core Micro-Credential Standard C-201. This course uses the Amatrol Trainer 990-ACDC1.

Modules included in the course:

- Basic Electrical Circuits
- Electrical Measurements
- Circuit Analysis
- Inductance and Capacitance
- Combination Circuits
- Transformers
- Fire and Electrical Safety
- Types of PPE
- Grounding Control Systems

Program Information:

Prerequisite: Pre-course assessment evaluation (Recommended)

Course: Amatrol V11133-AA00UEN-E1 - AC/DC Electrical Systems (990-ACDC1)

Program Total: 48 hours

Tuition & Fees: $750

For more information, please contact:

acceleratedtraining@tstc.edu

Carpentry Program

- CLASS DELIVERY: In Person
- CLASS DURATION: 262 Hours
- CLASS SIZE: 8-12

Carpenters make up the largest building trades occupation in the industry, and those with all-around skills are in high demand. Carpenters are involved in many different kinds of construction activities, from building highways and bridges to installing kitchen cabinets. Carpenters construct, erect, install and repair structures and fixtures made from wood and other materials.

NCCER Core (77.5 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 Carpentry Level 1 (162.5 hours)
An introduction to the carpentry trade, including safety, tools, equipment, terminology and methods.
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.

Safety Component (10 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. Upon completion, 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 a simulated obstacle course.

Campus Location(s): All

Credentials: NCCER Core Certification, NCCER Carpentry Level I Craft Certification, OSHA 10, Forklift

Certification, TSTC Certification of Completion

For more information, please contact:
accceleratedtraining@tstc.edu

Certified Cable Wiring Systems Installer

● CLASS DELIVERY: In Person and Online
● CLASS DURATION: 24 Hours In Person and 24 Hours Online
● CLASS SIZE: 8-10

This course is for those who design, install or maintain copper and fiber optic systems in commercial buildings and other facilities. It identifies the student as an inside plant installer who demonstrates a practical knowledge of the copper and fiber optic theories, codes, standards and practices widely accepted in commercial buildings and customer-owned outside plants (campus environments).

In addition, this inside plant training incorporates hands-on training of copper and fiber terminations, cable preparations, installation practices and certification testing procedures. Students will learn skills applicable to all of the functions required to safely and competently install advanced copper and fiber communications cabling. All procedures and practices are based on the latest EIA/TIA commercial building cabling standards.

This course will allow students to:

- Understand how to assemble, wire and test various commercial building cabling systems.
- Understand the EIA/TIA standards for advanced inside plant copper cabling systems.
- Understand the EIA/TIA commercial building cabling standards as they pertain to advanced fiber and copper cabling systems.
- Understand advanced copper and fiber testing procedures.
- Understand distance limitations and performance issues and how to test these measurable properties pertaining to copper and fiber media.
- Demonstrate basic skills needed to assemble, wire and test various commercial building and inside plant cabling systems, including advanced laser-optimized fiber optic cabling systems.

For more information, please contact:

acceleratedtraining@tstc.edu

Certified Fiber Optics Installer

● CLASS DELIVERY: In Person and Online
● CLASS DURATION: 16 Hours
● CLASS SIZE: Minimum of 10

This course is designed for those who lay out, install or maintain fiber-optic cabling systems. It identifies the student as a fiber optics installer able to demonstrate a practical knowledge of fiber-optic theory, codes, standards and practices widely accepted in the fiber optics industry. In addition, this training incorporates two days of individual hands-on training validating fiber optics installer skills, including fiber terminations, cable preparations, fusion splicing optical time-domain reflectometer (OTDR) and optical loss testing. These skills are applicable to all the requirements to safely and competently install, maintain and test fiber-optic cabling systems.

Certified Fiber Optics Installer training will provide the student with the necessary knowledge and skills to:

- Lay out, install or maintain fiber optic cabling systems.
- Demonstrate a practical knowledge of fiber optic theory, codes, standards and installation practices.
- Demonstrate a practical knowledge of individual hands-on skills, including:
    - Performing industry-standard fiber optic terminations.
    - Preparing cables for inside and outside applications.
    - Performing fusion splicing and splice tray preparation.
    - Testing with the OTDR and optical loss test equipment.

Credentials: Fiber Optics Technician Certification, TSTC Certification of Completion

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

Certified Logistics Technician

- CLASS DELIVERY: Online
- CLASS DURATION: 108 hours
- CLASS SIZE: 8-25

Course Description

CLT is a nationally portable, industry-led program that prepares individuals for front-line material handling and supply chain logistics jobs in fulfillment centers, warehouses, distribution centers and factories. This online training program includes a stackable certification for employees with the 21st century, in-demand skills needed for long-term career paths in more than 6.2 million supply chain logistics jobs.

The curriculum is designed to provide students with mid-level technical knowledge of the world of supply chain logistics. This course covers the material handling aspect of the global supply chain and describes the mid-level technical knowledge that front-line material handling workers should master to perform well. It is designed to give students more practical insight into the industry and

how the frontline worker fits into that environment.

Campus Location(s): Online

Cost: $2,700

Credentials: MSSC Certified Logistics Technician 4.0 Certification, TSTC Certificate of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Certified Medical Coder (CMC)®

- CLASS DELIVERY: Online
- CLASS DURATION: 24 Hours

Incudes assessment. Students must have access to current editions of CPT®, HCPCS, ICD-10-CM and a medical dictionary throughout the course and on the exam day.

Course Outline:

- Medical terminology
- Makeup and pronunciation of medical terms/words
- Key review of the human body systems, illustrations and review of anatomic position and directional terms
- Root words, prefixes, suffixes and supplemental terms
- Combined forms associated with medical conditions
- Definitions for common medical abbreviations
- Analysis of physician orders and narratives
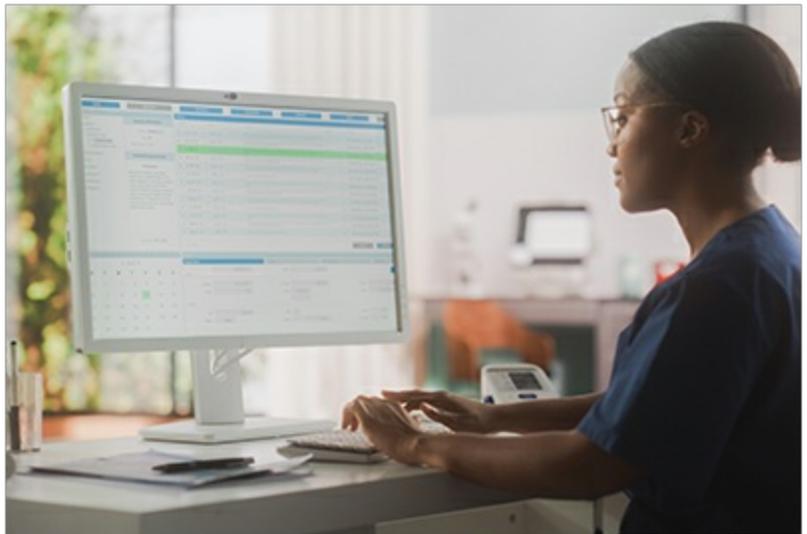
ICD-10-CM Coding

- Instruction on the guidelines, organization and groupings of ICD-10-CM
- Accurate translation of medical terminology for diseases into codes
- Designation of symbols, punctuation, abbreviations, keywords, unspecified codes and other coding conventions
- ICD-10-CM subcategories, classifications and extensions
- Outline of the complete coding and reimbursement equation
- Primary vs. secondary code selection
- Diagnostic coding guidelines such as laterality, sequelae, etc.
- Differentiate between signs/symptoms and ill-defined conditions and a diagnosis
- Correct rules and guidelines for assigning codes for neoplasms, adverse effects, pregnancy, childbirth, wounds, burns, injuries, HIV/AIDS, etc.
- Unsubstantiated and borderline diagnoses
- Application of ICD-10 coding conventions
- How to determine the accurate diagnostic code order
- Proper use of tables
- Problem set coding exercises for hands-on comprehension

Procedural Coding - CPT® and HCPCS

- Key elements of physician documentation that drive the assignment of CPT codes
- Accurate code assignment through the application of coding guidelines
- HCPCS/CPT coding process and steps
- Format and conventions used in the HCPCS/CPT coding manuals
- Global and unbundled procedures, and their impact on coding in CPT
- Identify unlisted procedures and how to bill them
- Modifier usage for appropriate reimbursement and efficient claims processing
- Evaluation and management service types

- E/M guidelines and levels of service
- Medical record documentation as related to the application of E/M coding
- Bundled services guidelines for surgery coding
- New versus established patient guidelines
- Surgery coding guidelines
- Hands-on exercises coding common procedures and services provided by physicians

Ancillary Services & Advanced Coding

- Maternity and delivery services
- Types of radiology services
- Technical and professional component distinction
- Billing supervision and interpretation (S&I) services
- Laboratory procedure types
- Billing for qualitative detection versus quantitative detection
- Billing laboratory panel tests
- Types of pathology services
- Coding services in the medicine section
- Billing for the administration of vaccines and immunizations
- Types of dialysis
- Guidelines used to assign ophthalmologic examinations
- Advanced coding problem set exercises

Campus Location(s): Online

Cost: $1,375

Credentials: TSTC Certificate of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Certified Medical Compliance Officer (CMCO)®

- CLASS DELIVERY: Online
- CLASS DURATION: 23 Hours

Includes assessment.

Compliance structure and enforcement

- The seven elements of the compliance plan
- Health care fraud enforcement and sentencing guidelines
- False Claims Act, Stark and the Federal Anti-Kickback Statute
- Calculation of civil monetary penalties
- Whistleblower complaints
- Legal provisions of compliance with review of actual case examples
- Impact of Health Care Reform on enforcement statutes and practices
- Performing a gap analysis and other means of identifying practice-specific risks

Billing/coding/coverage and reimbursement

- Coding, billing and documentation considerations
- LCDs/NCDs and their applicability to coverage decisions
- Drafting and incorporating the office compliance plan
- Mission statement, codes of conduct and organizational goals
- The growing threat of electronic security and identity theft

Compliance, risks, actions and issues

- Role of the Compliance Officer in the organizational hierarchy
- UPICs, ZPICs, RACs, SMERCs, and other Medicare/Medicaid contractors
- Correct handling of an audit request
- Organizational risks, peer review actions, state licensure issues
- Employee screening, staff and patient relations
- Employee notification of obligations and consequences for failure to comply
- Drafting enforcement and discipline provisions
- Ongoing monitoring and auditing
- Overview of law enforcement organizations

Medicare exclusion and its impact on an organization

- Permissive vs. mandatory exclusion
- Co-payments, waivers, deductibles and write-offs
- Overpayments, federal Anti-Kickback, False Claims Act and Stark implications
- Gratuities, kickbacks and payments to physicians
- Types of referrals that may violate one or more federal statutes
- Business relationships between your practice/clinic and other providers
- Setting up mechanisms for employees to file anonymous complaints
- Avoiding allegations of reprisal and responding to identified deficiencies
- Voluntary repayments - advantages and disadvantages of making repayment

Law enforcement investigation tools

- Subpoenas and search warrants and how to respond to compulsory process
- Employment of consultants, lawyers and other third party advisors
- Federal and non-federal administrative appeals of denied claims
- HIPAA/HITECH and the relationship between privacy and compliance
- Business associate pitfalls to consider
- Future risks to your organization

Campus Location(s):Online

Cost: $2,095

Credentials: TSTC Certificate of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Certified Medical Insurance Specialist (CMIS)®

- CLASS DELIVERY: Online
- CLASS DURATION: 16 Hours

Incudes assessment. Students must have access to current editions of CPT®, HCPCS, ICD-10-CM, and a medical dictionary throughout the course and on the exam day.

Roles and Responsibilities

- Differentiate between medical ethics and medical etiquette
- Learn essential ways to keep insurance and medical knowledge current
- Demonstrate the importance of accurate coding, billing and claims submission

Compliance
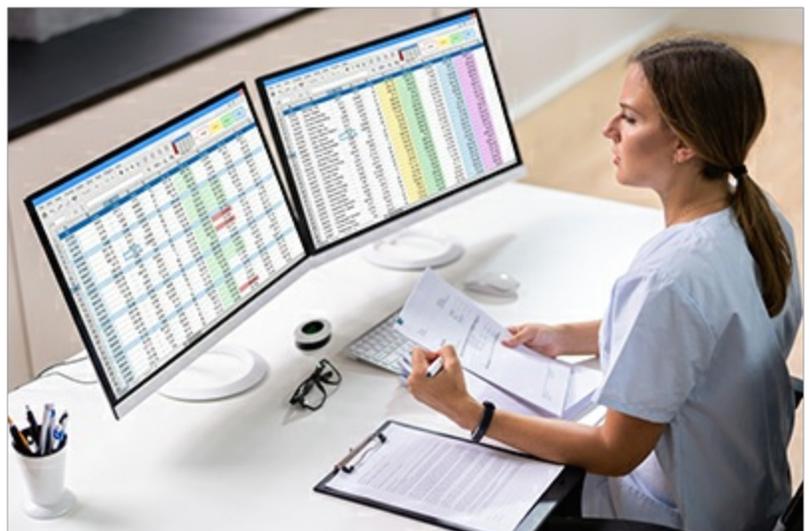
- Major categories of security safeguards under HIPAA and civil/criminal non-compliance penalties
- The Privacy Rule and the definition and explanation of protected health information (PHI)
- Definition of fraud and abuse and potential fines/penalties related to fraudulent claims
- Health information technology expansion: ARRA, HITECH and the creation of incentive payments to eligible providers

Basics of Health Insurance

- The difference between an implied and an expressed physician-patient contract
- Actions to prevent problems when given signature authorization for insurance claims
- Physician fee schedule -- RVUs and RBRVS
- MACRA and repeal of SGR formula

Medical Documentation

- Identify the principles and steps of the documentation
- Definitions for common medical, diagnostic and legal terms
- Reasons why an insurance company may decide to perform an external audit

ICD-10-CM Diagnostic Coding

- The purpose and importance of coding diagnoses to the highest level of specificity
- Features and use of ICD-10-CM codebook for accurate code selection
- In-class diagnostic coding exercises
- Determine medical necessity by using LCDs and NCDs

Procedural Coding

- The importance and usage of modifiers in procedure coding
- Code problems from the worksheet using the CPT® manual
- The difference between CPT®, HCPCS and Category II codes
- Use of the NCCI edits to prevent denials

The Paper Claim: CMS-1500

- Minimize the number of insurance forms returned because of improper completion
- Review CMS-1500 by section
- Expedite the handling and processing of the CMS-1500 insurance claim form
- Explain the difference between clean, rejected, incomplete and invalid claims

Electronic Data Interchange: Transactions and Security

- Transaction and code set standards to share data between clinicians and third-party payers
- The difference between carrier-direct and clearinghouse electronically transmitted claims
- How to conquer potential computer transmission problems
- The use of EDI standards to improve the accuracy of information exchanged between health care organizations
- Streamline business processes by using EDI standards as an eligibility and claims processing gateway

Receiving Payments and Insurance Problem-Solving

- Objectives of state insurance commissioners/state medical societies
- Communicate problems with insurance commissioners/state medical societies
- Working with denials and rejects; how to appeal for correct reimbursement
- Levels of review and redetermination in the Medicare program
- Sample letters of appeals for claims

Office and Insurance Collection Strategies

- Guidance on state prompt pay laws and the use of financial reports for more effective collections
- Patient credit options and the best practices for self-pay accounts
- Working with billing services, collection agencies and credit bureaus in the collection process
- The effects of the Affordable Care Act provisions on collections

Managed Care Plans

- Explanation of the types of managed care plans
- Types of authorizations for medical services, tests and procedures
- Patient access to care via accountable care organizations and patient-centered medical homes
- Special issues when patients are insured through the Health Insurance Exchanges

Medicare

- Utilize the lifetime beneficiary claim authorization and information release document

- How to submit claims for Medicare beneficiaries with supplemental insurance
- Proper execution of an Advance Beneficiary Notice (ABN)
- Medicare as a secondary payer rules

Medicaid and other State Programs

- Medicaid managed care system guidelines, terminology, abbreviations, eligibility classifications, benefits and non-benefits
- Medicaid claims filing for patients who have other coverage
- Minimize Medicaid rejections due to improper form completion

Workers' Compensation

- Workers' compensation insurance vs. employer's liability insurance
- Types of compensation benefits for non-disability, temporary and permanent disability claims
- Follow-up actions for delinquent workers' comp claims

Disability Income Insurance and Disability Benefit Programs

- Explanation and eligibility requirements for disability benefit programs and insurance plans
- Terminology and abbreviations for disability insurance and benefit programs
- How to determine whether the disability is considered temporary or permanent
- State eligibility requirements, benefits and limitations of SSDI and SSI

Campus Location(s): Online

Cost: $1,099

Credentials: TSTC Certificate of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Certified Medical Office Manager (CMOM)®

- CLASS DELIVERY: Online
- CLASS DURATION: 18 Hours

Includes assessment.

Practice Management

- Review of practice administration roles and responsibilities
- Facility, operational and time management
- Employee relations, laws and guidelines
- Employee handbook and business policies
- Administration of medical records and patient relations
- Labor regulations and reporting requirements
- Terminating the patient/provider relationship
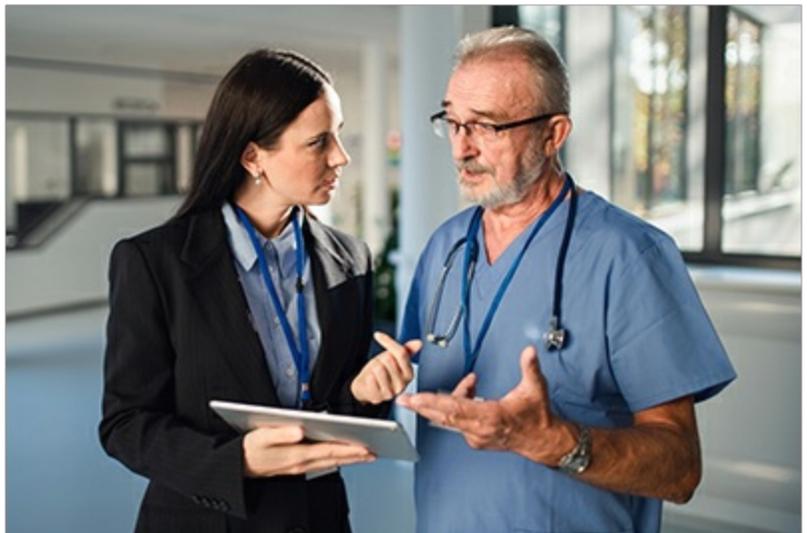
Personnel Management

- Creating effective job descriptions, interviewing and hiring tips
- Team building and managing conflicts
- Handling staff grievances, evaluations and performance issues
- Compensation and benefits packages to attract talent and minimize turnover
- Proper maintenance of employee personnel files (e.g. Form I-9)

- Goal setting and conducting effective staff meetings
- Termination procedures and the exit interview

Financial Management

- Budget planning, cost analysis and forecasting
- Examining contracts and fee schedule
- Patient education, verification and collections procedures
- Financial reporting, calculations and controls
- Developing and maintaining a budget
- Revenue and cost accounting

Compliance Requirements

- MACRA and the Quality Payment Program
- HIPAA and OSHA compliance
- Implementing the OIG's recommended compliance program
- Policies and procedures that inhibit fraud/abuse
- Identifying and controlling the risk of medical identity theft
- Legal protections and risk management guidelines

Managed Care Delivery System

- Physician credentialing and privileging
- Contract evaluation and negotiation
- Calculating the right patient-payer mix for your office
- Physician Utilization Committee review process
- Utilization review procedures and the PUC
- HMO, IPA, MSO, PPO definition, purpose and analysis
- Assigning an internal managed care coordinator
- Health insurance exchanges
- Value-based care models and quality metrics

Campus Location(s): Online

Cost: $1,099

Credentials: TSTC Certificate of Completion

For more information, please contact:

accelleratedtraining@tstc.edu

Certified Nurse Assistant (CNA)

The CNA program is designed to ensure 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 ensure 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 anticipate 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 textbooks, student workbooks and lab consumables. Students are required to purchase a few items: scrubs, stethoscope, a secondhand watch and appropriate shoes. Attendance is strictly monitored and students are required to make the commitment up front.

Program Information
Course: NURA 1001 - CNA
Program total: 100 hours

Tuition & Fees: $1,600
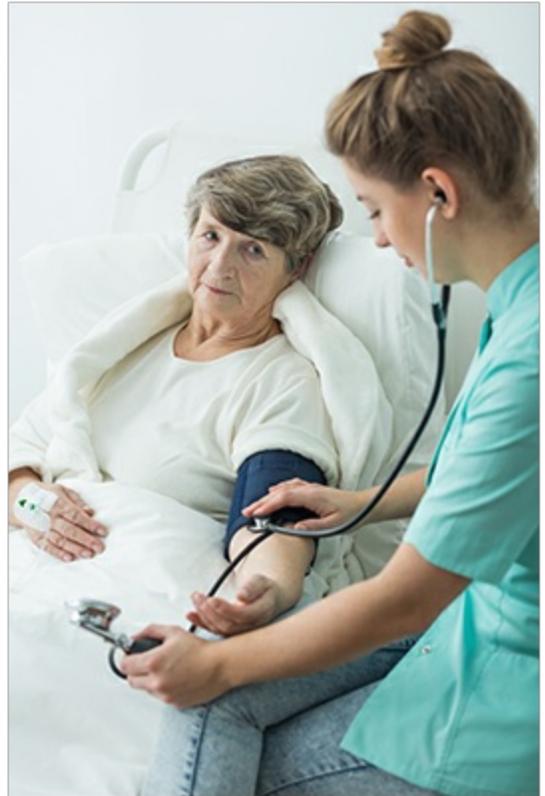
For more information, please contact:

acceleratedtraining@tstc.edu

Certified Production Technician

- CLASS DELIVERY: In Person and Online
- CLASS DURATION: 150 Hours
- CLASS SIZE: 8-15

This MSSC certified training is offered in-person and online. Virtual training is enhanced by using Oculus virtual reality headsets to demonstrate hands-on job training simulations. This training will also seek to provide participants with career guidance and connections to manufacturers and allow for a strategic shift to prioritize high-skilled, hands-on learning for in-person training while expanding current reach to the broader military veteran population with foundational training.

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. Learning outcomes/objectives are determined by local occupational needs and business and industry trends.

Student learning outcomes include:

- Communicate effectively.
- Integrate technology.
- Learn effectively - use academics effectively.
- Demonstrate cooperative/teamwork skills.
- Apply safety in the workplace.
- Think critically and creatively.
- Demonstrate responsible work ethics.

Program outcomes include:

- Apply safe and productive practices in the workplace.
- Utilize quality control practices to meet production standards.
- Implement manufacturing processes and production methods.
- Recognize potential maintenance issues with production equipment.

Campus Location(s): All/Online

Cost: $2,500

Credentials: MSSC Certified Production Technician Certification, TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Commercial Driver's License

- CLASS DELIVERY: In Person
- CLASS DURATION: 160 Hours
- CLASS SIZE: 4 Students per Truck

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 and Fort Bend County locations are third-party examining sites.

Students completing this training will be able to:

- 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%), 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.

Campus Location(s): Abilene*, Brownwood, Fort Bend County,* Harlingen*, Marshall*, and Sweetwater

* *Current DPS approved testing sites*

Cost: $4,500

Credentials: Commercial Driver's License, TSTC Certification of Completion

For more information, please contact:
transportationtraining@tstc.edu

accceleratedtraining@tstc.edu

Computer Numerical Control Machining

- CLASS DELIVERY: In Person
- CLASS DURATION: 160 hours
- CLASS SIZE: 10-15

Course Description

This course provides an exploration of the basics in machining, raw materials, use of hand tools, safety and maintenance. Topics include an overview of measurement techniques, materials, safety, machine tool math, quality control and maintenance. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included.

Campus Location(s): Abilene, Breckenridge

Credentials: National Institute for Metalworking Skills Certifications, TSTC Certificate of Completion

For more information, please contact:

accceleratedtraining@tstc.edu

Electrical Motor Control Systems

- CLASS DELIVERY: In Person or Hybrid
- CLASS DURATION: 40 Hours
- CLASS SIZE: 8-12

Prepares individuals to connect, adjust and operate electrical motor control circuits using these electrical components: 3-phase AC motors, reversing magnetic motor starters with overloads, drum switches, control relays, timer relays, pushbutton switches, selector switches, limit switches, pressure switches and float switches. Other key skills include adhering to motor control safety rules, reading ladder logic circuit diagrams, checking for proper ground connections, wiring motors for high and low voltage and interpreting common motor control application circuits. This course supports the SACA Micro-Credential C-202.

Modules included in the course:

- Introduction to Electrical Motor Control
- Manual Motor Control and Overload Protection
- Control Transformers
- Control Ladder Logic
- Control Relays and Motor Starters
- Reversing Motor Control
- Automatic Input Devices
- Basic Timer Control

Campus Location(s): All

Credentials: SACA Micro-Credential C-202 Electric Motor Control Systems 1, TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Electrical Program

- CLASS DELIVERY: In Person
- CLASS DURATION: 219 hours
- CLASS SIZE: 8-12

Electricians install electrical systems, wiring and other electrical components, as well as following blueprints and conforming to national, state and local codes.

NCCER Core (72.5 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 Electrical Level 1 (112.5 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 (10 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 a 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.

Campus Location(s): All

Credentials: NCCER Core Certification, NCCER Electrical Level I Craft Certification, OSHA 10, CPR/AED/First Aid, Forklift Certification, TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

Electrical System Installation

- CLASS DELIVERY: In Person or Hybrid
- CLASS DURATION: 40 Hours
- CLASS SIZE: 8-12

Prepares individuals to install and test/commission electrical motor control circuits using these electrical components: control cabinet enclosures, 3-phase AC motors, reversing magnetic motor starters with overloads, control relays, timer relays, pushbutton switches, selector switches, limit switches, pressure switches, indicators, electro-pneumatic solenoid valves, safety disconnect switches and circuit protection. Key skills taught are: adhering to motor control installation safety rules, using proper PPE, reading electrical wiring installation diagrams, sizing circuit protection, installing components on DIN rails and cabinet panels, installing and testing ground systems, wiring motors for high and low voltage, selecting and preparing wire for installation, attaching of wire to terminal strips and components/motors and routing of wire with raceways/conduits. This course supports the SACA Micro-Credential C-206.

Modules included in the course:

- Introduction to Electrical Control Wiring
- Panel Wiring Fundamentals
- Grounding Control Systems
- Connecting Wires in Panels
- Wiring a Motor
- Electro-Pneumatic Valves
- Electro-Pneumatic System Installation

Campus Location(s): All

Credentials: SACA Micro-Credential C-206 Electrical System Installation 1, TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Electrical Systems (Operation)

- CLASS DELIVERY: In Person or Hybrid
- CLASS DURATION: 48 Hours
- CLASS SIZE: 8-12

Prepares individuals to connect, adjust, operate, troubleshoot and analyze electrical circuits using basic electrical components, including resistors, capacitors, inductors, DC motors, solenoids, manual switches, relays, fuses, circuit breakers, transformers and indicators. Other key skills include: adhering to electrical safety rules, reading electrical circuit diagrams, applying Ohm's law and Kirchhoff's law, using digital multimeters, interpreting series/parallel circuits and assessing power/circuit protection. This course supports the SACA Micro-Credential C-201.

Modules included in the course are:

- Basic Electrical Circuits
- Electrical Measurements
- Circuit Analysis
- Inductance and Capacitance
- Combination Circuits
- Transformers

Campus Location(s): All

Credentials: SACA Micro-Credential C-201 Electrical Systems 1, TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

FAST Trac Airframe & Powerplant

- CLASS DELIVERY: In Person
- CLASS DURATION: 160 Hours
- CLASS SIZE: 10-16

The Texas State Technical College 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.
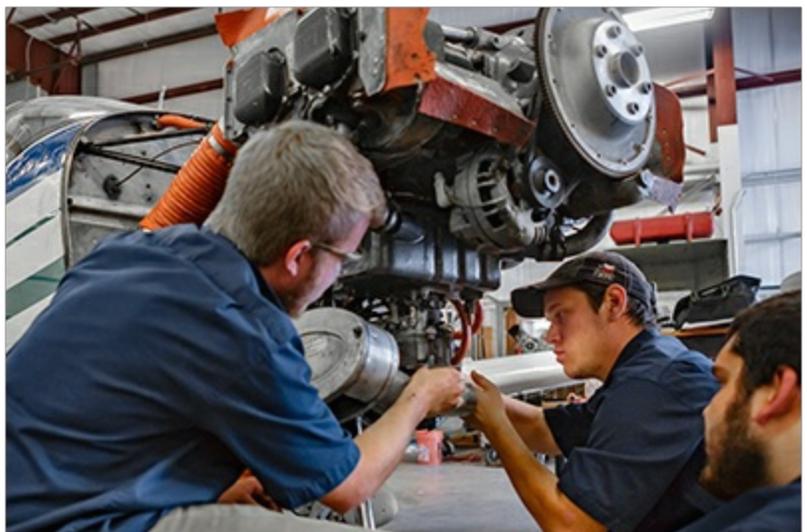
Students will focus on the study of Federal Aviation Administration (FAA) subject matter in the general, airframe and powerplant curricula with a focus on building knowledge of new materials, techniques and physical skills. This program is designed to refresh the knowledge and skills not provided by civilian or military training. Through hands-on labs, students will gain the experience that is required to obtain the Civilian Aviation Maintenance Technician certificate.

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General and Airframe

Study of FAA 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 is 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 FAA and manufacturers' aircraft maintenance specifications, data sheets, manuals, publications, related FAA 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, and 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.

Powerplant

Study of FAA 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 is 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 FAA and manufacturers' aircraft maintenance specifications, data sheets, manuals, publications, related FAA 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, and 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, and 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.

FAA authorization to take General and Airframe, General and Powerplant, or General, Airframe and Powerplant written, oral and practical exams.

Campus Location(s): Abilene (Harlingen and Waco capable)

Credentials: TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

FAST Trac Dental Assistant

- CLASS DELIVERY: In Person
- CLASS DURATION: 100 Hours
- CLASS SIZE: 10-16

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 operations and dental equipment.
- Introductory tooth structure, including primary and permanent teeth.
- The oral-related structures.
- Dental handpieces, sterilization and other areas.

Tuition Includes:

- Textbooks
- TSBDE Exam Fee and Proctoring
- CPR Certification Course
- Clinical Externship Placement (40 hours)

Tuition 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.

Campus Location(s): Abilene and Harlingen

Credentials: TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

FAST Trac GWO Wind Technician

CLASS DELIVERY: In person

CLASS DURATION: 144 hours

CLASS SIZE: 15-20

This Global Wind Organization (GWO) accreditation course is a 144 clock-hour program (4 weeks if run full-time) that provides both didactic and experiential learning. This program is designed to instruct participants in the GWO Wind Energy to become Wind Technicians.

Program Content Includes:

- Technical Wind Introduction
- NFPA 79E
- GWO Single Rescuer Nacelle
- GWO Single Rescuer Hub
- GWO Nacell
- GWO HUB
- GWO Hydraulics
- GWO Electrical
- GWO Mechanical
- GWO Bolt Tightening
- GWO Working Height
- GWO Manual Handling
- GWO First Aid
- GWO Fire Awareness

Campus Location: Sweetwater

Credentials: GWO Wind Certification, TSTC Certificate of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

FAST Trac Welding (GMAW & FCAW)

- CLASS DELIVERY: In Person
- CLASS DURATION: 160 Hours
- CLASS SIZE: 10-25

The Welding program is a 160 clock-hour program that provides both didactic and experiential learning in fillet and groove welds 2F-4F and 2G-4G (GMAW & FCAW).

This course is designed to instruct welding and safety guidelines using the Flux Core Arc Welding process and Gas Metal Arc Welding process on carbon plates for fillet welds and groove welds.

It teaches the basics and intermediate of the craft. Students start with safety, cutting, grinding and GMAW & FCAW welding on carbon steel for fillet welds. In addition, students will culminate their ability to weld in three positions (horizontal, vertical and overhead).

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:

accelevatedtraining@tstc.edu

FAST Trac Wind Energy Technician

- CLASS DELIVERY: In Person
- CLASS DURATION: 296 Hours
- CLASS SIZE: 10-16

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 credit hours that can be applied toward an associate degree at Texas State Technical College.

Courses include:

- 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)

Campus Location(s): Abilene, Breckenridge, Brownwood, Harlingen and
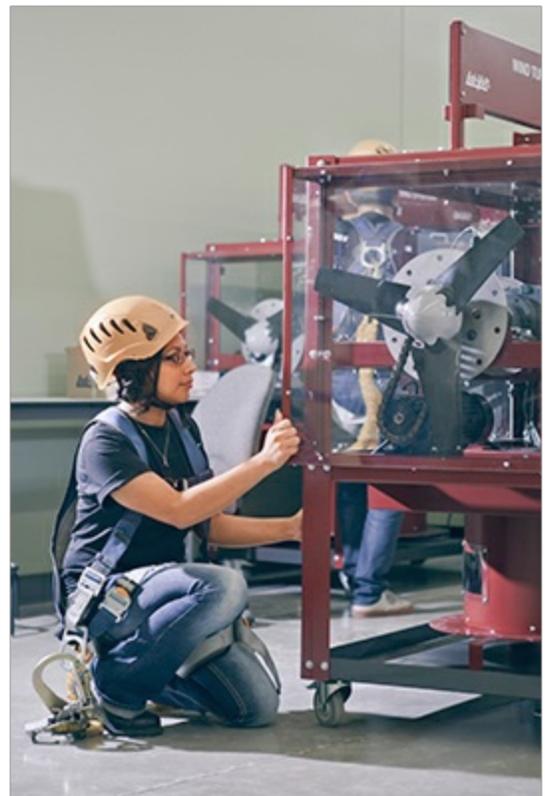
Credentials: TSTC Certification of Completion

For more information, please contact:
accceleratedtraining@tstc.edu

Fiber Optic Broadband Technician

- CLASS DELIVERY: In Person or Hybrid
- CLASS DURATION: 105 Hours
- CLASS SIZE: 8-10

This course provides information on the standards, describes materials, methods and verification criteria for producing high-quality entry level technician in broadband fields of fiber optics and categories five and six network cabling. Basic electricity and safety, data communications basics, definitions, symbols and abbreviations; cable construction and types, cable performance characteristics, cabling standards, basic network topologies, basic network architectures, National Electrical Code (NEC®), cabling system components, DCIC installation tools, connectors and outlets; cabling system design, cabling installation, connector installation, cabling testing and certification, cabling troubleshooting and documentation are covered. A fiber optics installer is proficient in the installation of connectors on various types of fiber-optic cables using multiple types of connectors and can perform mechanical and fusion splicing.

Modules included in the course:

- What is Structural Wiring
- Which Standards Apply
- LAN topology
- Cat 5e and Cat 6 Systems
- Fiber Optic Connectivity
- Installation Technics
- Fiber Optic Splicing
- Cable Termination
- Fiber Optic Certification
- System Testing

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:
accceleratedtraining@tstc.edu

Forklift Training

- CLASS DELIVERY: In Person
- CLASS DURATION: 8 hours
- CLASS SIZE: 8-12

The Forklift Operator program will provide you with hands-on training as a forklift operator and teach you safe practices for the workplace. Training can lead to positions in construction, logistics or manufacturing.

Modules included in the course:

- Introduction
- Principles of Stability
- Pre-operational Safety Check
- Safety Operating Procedures
- Propane, Gasoline and Diesel Refueling
- Battery Care and Recharging
- Operator Exam and Practical Test

Campus Location(s): All

Credentials: Forklift Operator Certification, TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

Geometric Dimensioning and Tolerancing

- CLASS DELIVERY: Online
- CLASS DURATION: 16 Hrs
- CLASS SIZE: 1-40

Course Description

Upon completion of GD&T training, participants will be able to:

- Identify the types of functional geometric characteristics existing on parts, realize the limitations of numeric tolerances and understand the need for geometric tolerances.
- Analyze tolerances expressed numerically and calculate minimum and maximum allowable values for dimensions.
- Understand and apply the symbols used with the geometric system of tolerances.
- Recognize basic dimensions on prints and properly interpret their meaning.
- Properly evaluate inspection data considering tolerance zones defined by geometric controls.
- Apply tolerances with bonus when suited to the application and properly interpret tolerances when bonus tolerance applies.
- Identify and properly interpret geometric controls on location, orientation, form, profile and runout.
- Recognize datum feature identifiers applied to features with size and surfaces.
- Identify and interpret the datum reference frame including order of precedence.
- Create specifications using appropriate geometric tolerances and datum reference frames.
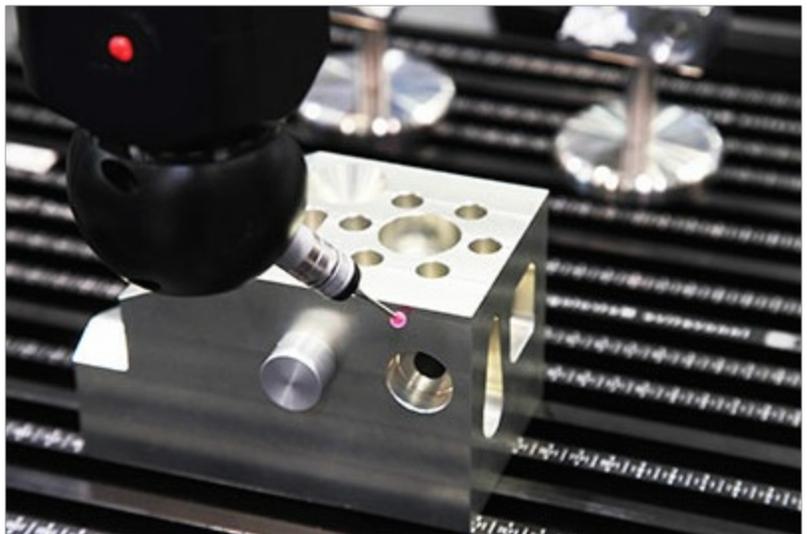
Campus Location(s): Online

Credentials: TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

GWO Basic Wind Technician

- CLASS DELIVERY: In Person
- CLASS DURATION: 104 Hours
- CLASS SIZE: 15-20

This Global Wind Organization (GWO) accreditation course is a 104 clock-hour program (approximately 3 weeks in length if run full-time) that provides both didactic and experiential learning. This program is designed to instruct participants in the GWO Wind Energy to become Wind Technicians.

Concepts Taught:

- NFPA 79E
- GWO Single Rescuer Nacelle
- GWO Single Rescuer Hub
- GWO Nacell
- GWO HUB
- GWO Hydraulics
- GWO Electrical
- GWO Mechanical
- GWO Bolt Tightening
- GWO Working Height
- GWO Manual Handling
- GWO First Aid
- GWO Fire Awareness

Campus Location: Sweetwater

Credentials: GWO Wind Certification, TSTC Certificate of Completion

For more information, please contact workforcetraining@tstc.edu

HAZMAT Endorsement

- CLASS DELIVERY: Online
- CLASS DURATION: 8
- CLASS SIZE: 10-30

Course Description

Often associated with tanker driving, this endorsement equips a driver to safely transport hazardous materials such as gas, oil and other liquid chemicals that must be carried in bulk.

Topics include:

- The Intent of the Regulations
- Bulk Tank Loading, Unloading and Marking
- Driver Responsibilities
- Driving and Parking Rules
- Communicating Rules
- Emergencies
- Loading and Unloading

Campus Location(s): All Locations and Online

Credentials: Hazardous Material Endorsement and TSTC Certificate of Completion

For more information, please contact:

accceleratedtraining@tstc.edu

Heavy Duty Diesel Engine Specialist

- CLASS DELIVERY: In Person
- CLASS DURATION: 240 Hours
- CLASS SIZE: 8-12

Diesel Equipment Technology students 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.

Campus Location(s): Harlingen

Credentials: TSTC Certification of Completion

For more information, please contact:
accceleratedtraining@tstc.edu
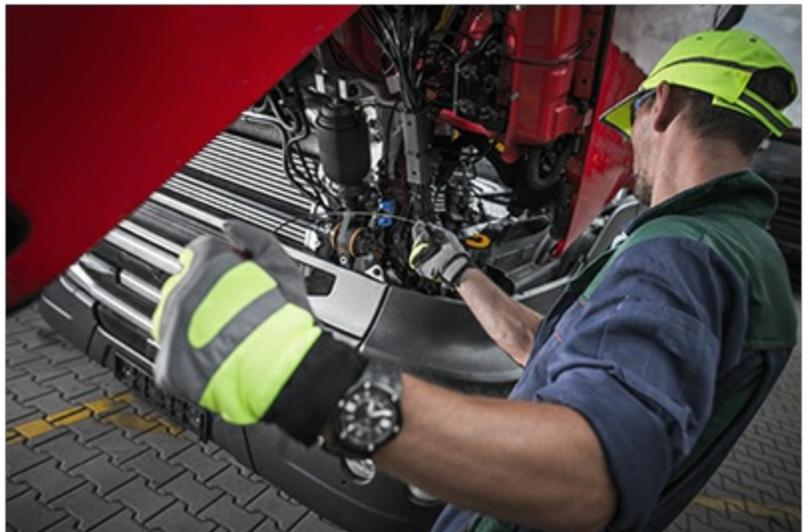
HVAC Continuing Education

● CLASS DELIVERY: In Person
● CLASS DURATION: 8 Hours
● CLASS SIZE: 10-15

The Texas 8-Hour ACR HVAC Renewal Course meets all Texas Department of Licensing and Regulation (TDLR) requirements for all air conditioning contractors renewing their licenses.

Topics may include:

- The Required Texas Laws and Rules
- Scheduling and Project Management
- Bidding and Estimating
- Employee Management
- Choosing your Business Structure
- Getting Work
- Customer Service

Campus location(s): All

Credentials: TDLR Continuing Education Unit, TSTC Certification of Completion

For more information, please contact:
accceleratedtraining@tstc.edu

Hydraulic Systems

● CLASS DELIVERY: In Person or Hybrid
● CLASS DURATION: 40 Hours
● CLASS SIZE: 8-12

Prepares individuals to connect, adjust, operate and analyze hydraulic circuits using these components: quick connect fittings, tee and cross fittings, fixed displacement pumps, filters, pilot-operated and direct operated relief valves, gauges, flow meters, directional control valves, flow control valves, check valves, pressure reducing valves, sequence valves, accumulators, pressure compensated flow control valves, cylinders and motors. Other key skills include adhering to hydraulic safety rules, reading hydraulic circuit symbols and diagrams, applying the Force-Pressure-Area formula, converting absolute/gauge pressure units, performing hydraulic power unit startup/shutdown, applying Pascal's Law, charging accumulators, reservoir refilling and measuring delta P.

Modules included in the course are:

- Introduction to Hydraulics
- Hydraulic Pumps
- Basic Hydraulic Circuits
- Hydraulic Pressure and Flow Concepts
- Hydraulic Pressure Control
- Hydraulic Flow Control
- Hydraulic Sequence Control

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

Hydraulic Troubleshooting

- CLASS DELIVERY: In Person or Hybrid
- CLASS DURATION: 40 Hours
- CLASS SIZE: 8-12

This course covers hydraulic pumps, circuits, pressure, flow concepts and control, and sequence control. Examples of topics include: how to read a pressure gauge; the operation of a hydraulic unit; the function of a 3-position; 4-way directional control valve; calculating the force output of a hydraulic cylinder in retraction; the advantages of a pilot-operated relief valve; the effect of actuator load changes on flow control valve operation; and the operation of a direct-acting sequence valve.

Modules included in the course:

- Hydraulic Troubleshooting Concepts
- Troubleshooting Hydraulic Pumps
- Troubleshooting Hydraulic Actuators
- Troubleshooting Hydraulic Valves 1
- Troubleshooting Hydraulic Valves 2
- Troubleshooting Hydraulic Systems

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

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

Program Information:

Courses:

- Electrical Safety for Qualified Electrical Personnel
- Motor Control and Troubleshooting
- Industrial Automation Principles
- Controller Technology and Programming
- Drive Configuration and Troubleshooting
- NCCER Core and Industrial Maintenance

Program Total: 347 hours

Tuition & Fees: $2,750

For more information, please contact:

acceleratedtraining@tstc.edu

Industrial Systems Training Program

- CLASS DELIVERY: In Person or Hybrid
- CLASS DURATION: 288 Hours
- CLASS SIZE: 8-12

Manufacturing is a diverse and rewarding high-growth career in all industry segments and sectors in nearly every community in Texas. It is the backbone of our state's economy, driving solutions and innovations while improving the quality of our lives.

Industrial systems is an emerging field that integrates electrical and mechanical engineering, advanced manufacturing and computer technology. This is a 12-week course of accelerated training for in-demand industry certifications.
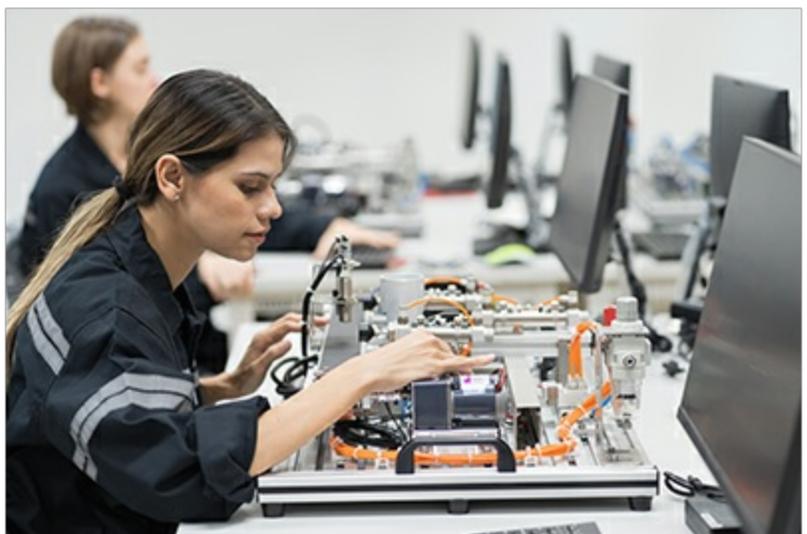
Electrical Systems (48 hours)
Prepares individuals to connect, adjust, operate, troubleshoot and analyze electrical circuits using basic electrical

components such as resistors, capacitors, inductors, DC motors, solenoids, manual switches, relays, fuses, circuit breakers, transformers and indicators. Other key skills include adhering to electrical safety rules, reading electrical circuit diagrams, applying Ohm's law and Kirchhoff's law, using digital multimeters, interpreting series/parallel circuits and assessing power/circuit protection.

Electric Motor Control Systems (40 hours)
Prepares individuals to connect, adjust and operate electrical motor control circuits using these electrical components, including 3-phase AC motors, reversing magnetic motor starters with overloads, drum switches, control relays, timer relays, push-button switches, selector switches, limit switches, pressure switches and float switches. Other key skills include adhering to motor control safety rules, reading ladder logic circuit diagrams, checking for proper ground connections, wiring motors for high and low voltage and interpreting common motor control application circuits.

Variable Frequency Drive Systems (32 hours)
Prepares individuals to connect, configure, adjust and operate AC variable frequency motor drives using basic volts per hertz mode. Key skills include adhering to VFD safety rules, operating VFD in manual using keypad, performing normal VFD startup and shutdown, performing emergency shutdown, viewing and editing parameters, changing speed with potentiometer, interfacing/configuring external discrete I/O, interpreting error codes, resetting drive errors and configuring for acceleration, deceleration and braking.

Electrical System Installation (40 hours)
Prepares individuals to install and test/commission electrical motor control circuits using these electrical components: control cabinet enclosures, 3-phase AC motors, reversing magnetic motor starters with overloads, control relays, timer relays, push-button switches, selector switches, limit switches, pressure switches, indicators, electro-pneumatic solenoid valves, safety disconnect switches and circuit protection. Key skills include adhering to motor control installation safety rules, using proper PPE, reading electrical wiring installation diagrams, sizing circuit protection, installing components on DIN rails and cabinet panels, installing and testing ground systems, wiring motors for high and low voltage, selecting and preparing wire for installation, attaching of wire to terminal strips and components/motors and routing of wire with raceways/conduits.

Programmable Controller Systems (40 hours)
Prepares individuals to program, configuration, adjust, monitor and operate industrial programmable logic controller (PLC) systems. Key skills include adhering to PLC safety rules, performing normal startup/shutdown, operating PLC in different modes, performing emergency shutdown and reset, monitoring for proper operation through indicators and PC-based PLC software, configuring processor software drivers for communication to PC, configuring and loading of HMI programs, operating HMI with PLC, configuring PLC discrete I/O, transferring programs between PC and PLC processor, interpreting basic and intermediate level PLC ladder logic programs (with contacts, coils, timers, counters, math, comparison instructions), PLC project creation/editing and interpreting common PLC program logic applications using electro-pneumatic actuators and on/off motor control systems.

Pneumatic Systems (40 hours)
Prepares individuals to connect, adjust, operate and analyze pneumatic circuits using these components: quick-connect fittings, tee and cross fittings, air compressors, filters, regulators, lubricators, gauges, rotameters, directional control valves, flow control valves, check valves, cylinders and motors. Other key skills include adhering to pneumatic safety rules, reading pneumatic circuit symbols and diagrams, applying the Force-Pressure-Area formula, converting absolute/gauge pressure units, performing reciprocating compressor startup/shutdown, applying Pascal's law, setting pressure switch, filter draining, setting lubricator rate, lubricator refilling and measuring delta P.

Mechanical Power Systems (48 hours)
Prepares individuals to install, adjust, align, tension, operate and analyze basic mechanical power transmission drive systems using these components: motors, shafts, flexible jaw couplings, fractional horsepower (FHP) chain drives, FHP V-belt drives, spur gear drives, pillow block bearings and flange bearings. Other key skills include adhering to mechanical drive safety rules, mounting and leveling motors, testing and correcting for soft foot, installing components and shafts with keyways, sizing keys, aligning shafts using feeler gauge and straight-edge method, calculating speed and torque from component size ratios, interpreting rotary power specifications, determining mechanical efficiency, greasing bearings using a grease gun, refilling oil lubrication reservoirs, interpreting lubrication specifications and identifying component given a model number.

Campus Location(s): All

Cost: $4,500

Credentials: C201 Electrical Systems, C202 Electric Motor Control Systems, C203 Variable Frequency Drive Systems, C206 Electrical System Installation, C207 Programmable Controller Systems, C209 Pneumatic Systems, C210 Mechanical Power Systems and TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

Injection Mold Setting and Processing

- CLASS DELIVERY: Online
- CLASS DURATION: 145 (18 weeks)
- CLASS SIZE: 10-30

Course Description

An introduction to mold setting and processing. Courses begin with Blueprint Reading and Math, move into Molds for Plastics, Mold Repair with basic welding and concludes with 10 hours total of CAD and CAM instruction.

Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are achieved through on-the-job training via registered apprenticeship.

Campus Location(s): East Williamson County

Credentials: TSTC Certificate of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

IPC J-STD-001 Soldering Certification

- CLASS DELIVERY: In Person
- CLASS DURATION: 20–40 Hours
- CLASS SIZE: 8-10

This course provides information on the standards for producing high-quality soldered leaded and lead-free interconnections, and describes the materials, methods and verification criteria for them. It emphasizes process control and establishes industry consensus requirements for a broad range of electronic connections. There are hands-on exercises for component placement and soldering connectivity. Upon completion of the course, the participants will be able to identify component connectivity, component requirements and soldering methods required to successfully assemble a project and qualify to
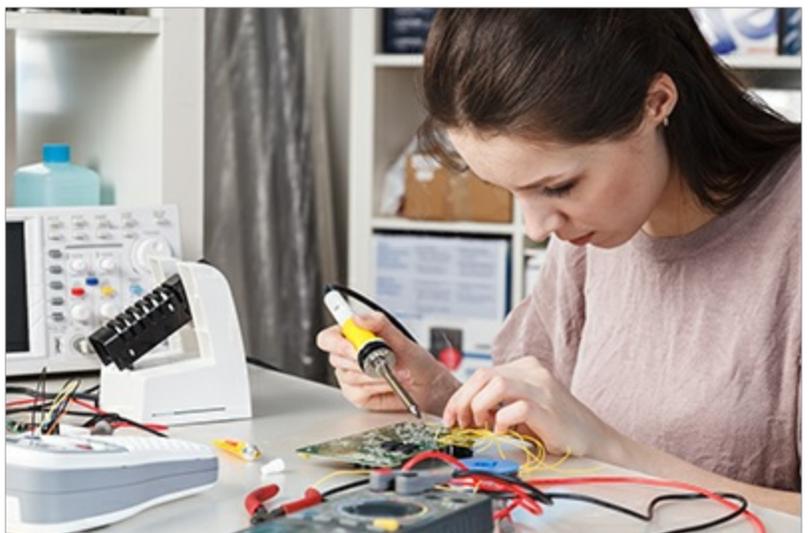
test for the IPC J-STD-001 certification.

Modules included in the course are:

- Wires and Terminals
- PCB, Coating, Encapsulation and Staking
- Through-Hole Connectivity
- Surface Mount Connectivity
- Inspection

Campus Location(s): All

Credentials: IPC J-STD-001 Certification, TSTC Certification of Completion

For more information, please contact:
accceleratedtraining@tstc.edu

Laser Shaft Alignment

● CLASS DELIVERY: In Person or Hybrid
● CLASS DURATION: 16 Hours
● CLASS SIZE: 8-12

Prepares individuals to install, configure, adjust and operate laser shaft alignment systems to perform precision alignment of mechanical power transmission shafts. Other key skills include adhering to laser system safety rules, using jack bolts for rough alignments, using laser system to correct for soft foot and determining proper alignment tolerances from manufacturer's documentation.

Modules included in the course:

- Introduction to Laser Shaft Alignment
- Laser Shaft Alignment Operation

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:
accceleratedtraining@tstc.edu

Leadership Course Offerings

(through contracted third-party partners)

Active Listening Skills

● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 8 Hours
● CLASS SIZE: 8-12

The training session will focus specifically on identifying and understanding the fundamental communication process and requirements to be effective. Emphasis will be placed on developing strong skills, identifying appropriate communication channels, emphasizing the power of listening and understanding the importance of both efficient and effective communication.

Elements in this course include:

- To understand the building blocks of good communication.
- To be able to make use of nonverbal factors to reinforce the intent of your message.
- To understand how to effectively present ideas (designing clear, concise messages).
- Learning the importance of listening to communicate.
- To be able to identify and overcome barriers to good communication.
- To understand and effectively communicate within a team.

Conflict Resolution
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 4 Hours
● CLASS SIZE: 8-12

The training session explores the way supervisors and employees can work together to resolve conflict in the workplace. Practical steps and techniques, such as negotiation, will be included to help facilitate conflict resolution and ways to improve work relationships. Training will include awareness that conflict and difficult situations are a natural part of our lives both in personal and work environments. The focus will be on resolution and an understanding that the goal is finding a peaceful solution.

Elements in this course include:

- Practical ways to produce a solution that all those involved can agree to.
- To address the issue while maintaining sensitivity to the relationship.
- To understand the importance of finding peaceful and workable solutions.
- To develop a model to follow when dealing with difficult situations.
- To explore and develop practical negotiation skills that seek a positive outcome.

Customer Service Skills
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 16 Hours
● CLASS SIZE: 8-12

The training session will focus specifically on teaching employees the skills and competencies needed to effectively work in the customer service environment. Key to this environment are the areas of communication, listening, interacting with customers and creating a strong service focus. Emphasis will be placed on developing a solid foundation of customer understanding (needs) and how to communicate effectively with customers.

Elements in this course include:

- Trust and rapport building (relationship building).
- Active listening skills.
- Managing customer expectations.

- Creating customer loyalty.
- Communication etiquette (verbal, telephone and written).
- Understand and effectively work within a customer service environment.

Fundamentals of Management Workshop
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 8-16 Hours
● CLASS SIZE: 8-12

This seminar provides the framework for organizations to build strength among managers at all levels. Participants learn in what way their management style influences how they manage time, make decisions, approach problems and what they need to do to adapt to the styles of others to bring out the best in each and every employee. Participants receive the tools they need to coach and develop competent, motivated employees by gaining a deeper understanding of individual strengths and challenges.

Elements in this course include:

- Learn one's personal management style based on a proven model.
- Know priorities, strengths and challenges as it relates to management and the DiSC Model.
- Understand how to direct and delegate by style.
- Create a motivating environment that engages employees.
- Have strategies to adapt communications and address conflict.
- Help individuals work better with their own manager.

Attributes of a Successful Supervisor
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 4-8 Hours
● CLASS SIZE: 8-12

Supervisors can empower and energize their teams or they can create frustration, confusion or even paralysis. This seminar provides a way to understand the impact that their behavior has on others, and they discover how others may respond to their style. Participants will learn four different approaches to supervision, discover their unique strengths and challenges and understand how they can be overused. Becoming a new supervisor means added responsibilities, different challenges and unique rewards.

Elements in this course include:

- Understand the supervisor mindset.
- Know the ANT philosophy versus the ENT philosophy of managing and which is better.
- Develop leadership expectations and attitudes.
- Fundamental duties including problem solving, decision making, motivating, delegating, championing change can be incorporated.
- Learn how to communicate effectively with team members and employees.

Communicate with Style
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 8 Hours
● CLASS SIZE: 8-12

This seminar provides an engaging framework for learners to reach further across their organizations and improve effectiveness. This session will create a personalized learning experience to help participants understand and appreciate the different priorities, preferences and values each individual brings to the workplace and how they can learn to adapt to the style of others. This session delivers a comprehensive, workplace development solution to engage every employee — regardless of title or position, department or function — in building more productive and effective relationships at work.

Elements in this course include:

- Learn about the DiSC model and 4 quadrants of behavior.
- Understand DiSC in the workplace.
- Know energizers and drainers.
- Recognize strengths and challenges of each communication style.
- Learn how to read the style of other team members.
- Adapt communication style as needed.

Conflict Resolution for Manager and Supervisors
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 4-8 Hours
● CLASS SIZE: 8-12

Provides a straightforward approach that helps participants develop the understanding and self-awareness necessary to resolve interpersonal conflict. In addition to learning how to work through conflict on an individual basis, a strong foundation for resolving issues within an entire team is offered. This builds important skills that are necessary for effective communication and teamwork by providing the keys to maintaining a well-balanced workplace by helping individuals understand their behavior in conflict and providing the problem solving skills needed to manage adversity within the team.

Elements in this course include:

- Explore different approaches to conflict.
- Understand how our natural styles influence those approaches.
- Discover the importance of finding common goals in conflict situations.
- Learn to share all perspectives in conflict situations.
- Explore ways to improve ability to generate solutions.
- Discover the benefits of a balanced approach.
- Make better decisions that satisfy the needs of all involved.
- Develop new strategies for working through conflict.

Time Management Skills for Enhanced Effectiveness
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 4-8 Hours
● CLASS SIZE: 8-12

Participants will gain an understanding of the relationship of goals, planning, analyzing and prioritizing for time management and identify their personal time wasters. Strategies and tools for improving time management and scheduling are discussed. This training helps people assess their time-management effectiveness and create a personal plan for improving skills in key areas.

Elements in this course include:

- Understand the importance of goals, planning and prioritizing.
- Identify common time wasters.
- Utilize strategies for improving time management.
- Recognize over commitment and how to avoid it.
- Learn to leverage production time.
- Review a proven time management matrix.
- Ability to focus on the Key Result Areas (KRAs).

Improving Listening Skills
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 4-8 Hours
● CLASS SIZE: 8-12

Participants recognize the importance of developing good listening skills by reflecting on their past listening experiences. The five different approaches to listening and the specific characteristics of each approach are discussed. Participants will

identify their most natural listening approach, explore their strengths and challenges as listeners and practice modifying their listening approaches to meet the situation. Attendees will create action plans to improve their ability to communicate effectively using the different approaches.

Elements in this course include:

- Know the value of listening in the workplace.
- Understand the difference between hearing and listening.
- Understand listening filters.
- Learn five different listening approaches.
- Learn when to adapt your listening approach.
- Find strategies for improving skills.

Building A Collaborative Team
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 4-8 Hours
● CLASS SIZE: 8-12

A high-functioning team makes real progress and everyone is glad to be on the team. This workshop provides the key to building and maintaining peak performing teams by helping individuals identify their strengths and challenges. We will explore how team members can work together more productively by tapping their strengths to contribute to the overall success of the team. Participants will learn the five different roles within teams and the diversity of inherent talents each role brings to the team. They will develop teamwork strategies to help create, advance, refine and implement new ideas or projects. Participants will discover effective ways to balance, integrate and capitalize on different strengths of each member.

Elements in this course include:

- Know the strengths of team members.
- Uncover hidden talents.
- Understand how tasks impacts co-workers and team.
- Match individual strengths with team roles.
- Learn strategies for collaboration and open dialogue.
- Use the Z process for projects and innovation.

Decision Making
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 4-8 Hours
● CLASS SIZE: 8-12

Decision making is a skill and to become better at it requires knowing how to make a decision and practice over time to build confidence. Good and quick decisions require research and not focusing too much on a specific portion of the problem or issue. Business difficulties can be addressed by exploring the different approaches to making decisions, understanding traps people fall into when making decisions and learning to use a defined process for better decision making. Participants will understand how personal filters and perception can affect their decision making process, different methods for decision making, how to stop a bad decision before it goes terribly wrong, how to sell and own their decisions and the importance of planning and execution.

Elements in this course include:

- Understand the impact of minor and major decisions.
- Awareness of selective perception and filters.
- Learn a four step process to better decision making at all levels.
- Know the role intuition and risk tolerance play in decisions.
- Gaining alignment for the decision.
- Know how to manage and implement decisions for successful execution.

Reducing Workplace Conflict

● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 8 Hours
● CLASS SIZE: 8-12

This seminar provides a straightforward approach that helps participants develop the understanding and self-awareness necessary to resolve interpersonal conflict. In addition to learning how to work through conflict on an individual basis, a strong foundation for resolving issues within an entire team are reviewed. This builds the keys to maintaining a well-balanced workplace by helping individuals understand their behavior in conflict and providing the problem solving skills needed to manage adversity within the team.

Elements in this course include:

- Understand the four approaches to conflict.
- Discover the importance of finding conflict resolution goals.
- Stages of conflict and reactions to intense stress.
- Explore ways to generate effective solutions.
- Develop strategies for a balanced approach to working through conflict.

Problem Solving
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 8 Hours
● CLASS SIZE: 8-12

Participants learn proven techniques for generating new ideas and increasing their capacity for creativity and innovation. This workshop provides a blueprint for establishing an environment of problem solving and generating new ideas. Participants engage in an interactive, hands-on process where they discover new ways of breaking through mental barriers and overcoming roadblocks to improve performance and unleash creative potential.

Elements in this course include:

- Understand common approaches to solving problems.
- Get employees in the habit of isolating the problem and looking for the cause.
- Avoidance of treating simply the symptoms.
- Give employees a process for problem solving leading to better decisions.
- Use the art of questioning to identify alternate solutions.
- Watching the role our own motivations plays in implementing a solution.
- Utilize team strengths to solve problems.

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:

accceleratedtraining@tstc.edu

LEAN 101

● CLASS DELIVERY: In person
● CLASS DURATION: 8 hours
● CLASS SIZE: 8–12

Course description

Designed for an understanding of the eight ways of manufacturing, employees will learn lessons in identifying value-added and non-value-added activities. The concepts learned will be used in an engaging factory simulation geared to the manufacturing floor employees.

Campus Location(s): All Locations

Credentials: Certificate of Completion

For more information, please contact: accceleratedtraining@tstc.edu

LEAN for Leaders

● CLASS DELIVERY: In person
● CLASS DURATION: 8 hours
● CLASS SIZE: 8-12

Course Description

Designed for an understanding of the major LEAN concepts, managers will learn lessons in identifying value-added and non-value-added activities, LEAN concepts and tools used in a LEAN transformation. The concepts learned will be used in an engaging simulation geared to managerial staff.

Campus Location(s): All Locations

Credentials: Certificate of Completion

For more information, please contact:

accceleratedtraining@tstc.edu

Mechanical Power Systems

● CLASS DELIVERY: In Person or Hybrid
● CLASS DURATION: 48 Hours
● CLASS SIZE: 8-12

Prepares individuals to install, adjust, align, tension, operate and analyze basic mechanical power transmission drive systems using these components: motors, shafts, flexible jaw couplings, fractional horsepower (FHP) chain drives, FHP v-belt drives, spur gear drives, pillow block bearings and flange bearings. Other key skills taught are: adhering to mechanical drive safety rules; mounting and leveling motors; testing and correcting for soft foot; installing components and shafts with keyways; sizing keys; aligning shafts using feeler gage and straight edge method; calculating speed and torque from component size ratios; interpreting rotary power specifications; determining mechanical efficiency; greasing bearings using a grease gun; refilling oil lubrication reservoirs; interpreting lubrication specifications; and identifying component given a model number. This course supports the SACA Micro-Credential C-210.

Modules included in the course:

- Introduction to Mechanical Drive Systems
- Motor Mounting
- Key Fasteners
- Torque, Power, Efficiency
- Power Transmission Systems
- Introduction to V-belt Drives
- V-belt Operation
- Introduction to Chain Drives
- Chain Drive Operation
- Chain Tensioning and Installation
- Introduction to Spur Gear Drives
- Spur Gear Drive Operation
- Multiple Shaft Drives

Campus Location(s): All

Credentials: SACA Micro-Credential C-210 Mechanical Power Systems 1, TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

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)

Program Information:

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

Program Total: 288 hours
Tuition & Fees: $4,500

For more information, please contact:

acceleratedtraining@tstc.edu

Microsoft Office Course Offerings

(through contracted third-party partners)

Word - Basic
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 8 Hours
● CLASS SIZE: 8-12

This is an introductory level course designed to familiarize trainees on the use and application of Microsoft Word software. An assessment of each trainee's knowledge and skill level will be taken on the first day of class, as well as at the end of the class. Results will be reported back to the sponsor company.

Elements in this course include:

- Use the Help system and navigate documents.
- Enter and edit text, create and save documents and learn how to enhance the appearance of a document by using various formatting options.
- Create tables, insert headers and footers, proof and print documents and insert graphics.
- Insert graphics and clip art, move graphics, wrap text around graphics and modify graphics.
- Examine and compare text formatting, work with character styles and work with a document outline.
- Proof a document by checking spelling and grammar, use AutoCorrect, preview and print documents, create PDF and XPS documents and edit PDF documents in Word.

Word - Intermediate
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 8-16 Hours
● CLASS SIZE: 8-12

This is an intermediate to advanced level course designed to build on the skills and concepts taught in Microsoft Word - Basic. An assessment of each trainee's knowledge and skill level will be taken on the first day of training, as well as at the end of class. Results will be reported back to the sponsor company.

Elements in this course include:

- Use the elements of the Word window, create and save documents and navigate a document and select text by using the keyboard and the mouse.
- Insert and delete text, create hyperlinks, use the Undo and Redo commands, cut, copy and paste text, and find and replace text.
- Use document templates, manage document revisions and work with Web features.
- Create tables, work with text in a table, adjust a table's structure, apply table formatting and styles and work with data in a table.
- Add headers and footers, set and change document margins, change page orientation, set text flow options and add and delete manual page breaks.
- Work with styles, sections and columns and will use the Navigation pane to work with outlines.
- Examine and compare text formatting, work with character styles and work with a document outline.
- Format tables, print labels and envelopes and work with graphics.

Excel - Basic
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 8 Hours
● CLASS SIZE: 8-12

This is an introductory level course designed to familiarize trainees on the use and application of Microsoft Excel software. An assessment of each trainee's knowledge and skill level will be taken on the first day of class, as well as at the end of the class. Results will be reported back to the sponsor company.

Elements in this course include:

- Use the Help system and navigate worksheets and workbooks.
- Recognize spreadsheet terminology.
- Start Microsoft Excel and identify the components of the Excel interface.
- Enter and edit text, values, formulas and pictures.
- Understand how to save workbooks in various formats.
- Move and copy data, learn about absolute and relative references and work with ranges, rows and columns.
- Use simple functions, basic formatting techniques and printing.
- Create and modify charts and learn how to manage large workbooks.
- Check spelling, find and replace text and data, preview and print a worksheet, set page orientation and margins, create and format headers and footers and print gridlines.

Excel - Intermediate
- CLASS DELIVERY: In Person or Online
- CLASS DURATION: 8-16 Hours
- CLASS SIZE: 8-12

This course builds on the skills and concepts taught in Microsoft Excel – Basic. An assessment of each trainee's knowledge and skill level will be taken on the first day of class, as well as at the end of the class. Results will be reported back to the sponsor company.

Elements in this course include:

- Enter and edit text and values, use AutoFill, enter formulas and examine the order of operations, save and update a workbook, and save a workbook in different file formats.
- Move and copy data, use the Office Clipboard, move and copy formulas, use AutoFill to copy formulas, use Paste Link, view formulas, work with relative and absolute references and insert and delete ranges, rows and columns.
- Use the SUM function, AutoSum and the AVERAGE, MIN, MAX, COUNT and COUNTA functions to perform calculations in a worksheet.
- Format text, cells, rows, and columns, merge cells, apply color and borders, format numbers, create conditional formats, and use the Format Painter.
- Create, format, modify and print charts based on worksheet data, work with various chart elements and apply chart types and chart styles.
- Create, format and modify pivot tables.
- Insert and modify a picture, represent data graphically within cells by applying three forms of conditional formatting (data bars, color scales and icon sets), and insert and modify SmartArt graphics.
- Check spelling, find and replace text and data, preview and print a worksheet, set page orientation and margins, create and format headers and footers and print gridlines.

Powerpoint - Basic
- CLASS DELIVERY: In Person or Online
- CLASS DURATION: 8 Hours
- CLASS SIZE: 8-12

This introductory course covers the basic functions of Microsoft PowerPoint software, including the window components and the Help system. An assessment of each trainee's knowledge and skill level will be taken on the first day of class, as well as at the end of the class. Results will be reported back to the sponsor company.

Elements in this course include:

- Create, save and rearrange presentations.
- Format text, use drawing objects, work with graphics and insert tables and charts.
- Use templates and themes, slide masters and transition effects.
- Proof, run and print presentations.

Powerpoint - Intermediate
- CLASS DELIVERY: In Person or Online
- CLASS DURATION: 8-16 Hours

● CLASS SIZE: 8-12

This course builds on the skills and concepts taught in PowerPoint - Basic. An assessment of each trainee's knowledge and skill level will be taken on the first day of class, as well as at the end of the class. Results will be reported back to the sponsor company.

Elements in this course include:

- Customize PowerPoint by modifying the Ribbon and changing application settings.
- Apply themes and templates, and how they will work with SmartArt graphics and tables.
- Add multimedia content and interactive elements to slides, and learn about presentation distribution options, including PDF, HTML and online broadcasts.
- Integrate PowerPoint with Word and Excel.

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

NCCER Carpentry Level 1 - Craft Training

● CLASS DELIVERY: In Person or Hybrid
● CLASS DURATION: 162.5 Hours
● CLASS SIZE: 8-12

Carpenters make up the largest building trades occupation in the industry, and those with all-around skills are in high demand. Carpenters are involved in many different kinds of construction activities, from building highways and bridges to installing kitchen cabinets. Carpenters construct, erect, install and repair structures and fixtures made from wood and other materials.

Modules included in the course:

- Orientation to the Trade
- Building Materials, Fasteners and Adhesives
- Hand and Power Tools
- Introduction to Construction Drawings, Specifications and Layout
- Floor Systems
- Wall Systems
- Ceiling and Roof Framing
- Introduction to Building Envelope Systems
- Basic Stair Layout

Campus Location(s): All

Credentials: NCCER Carpentry Level I Craft Certification, TSTC Certification of Completion

For more information, please contact:

NCCER Core

- CLASS DELIVERY: In Person or Hybrid
- CLASS DURATION: 80 Hours
- CLASS SIZE: 8-12

NCCER Core is designed as a rigorous, competency-based, industry-recognized program for career and technical education. Students may complete the required elements sooner or later than the recommended 150 hours of knowledge and skills-based instruction, depending on their individual proficiency in mastering the content.

NCCER Core is a prerequisite to all other Level 1 craft curriculum. Its modules cover topics such as Basic Safety, Communication Skills and Introduction to Construction Drawings. The recently released sixth edition of Core features a new, elective module introducing construction careers, more rigorous performance tests and extensive updates on math, hand tools, power tools and drawings. Completing this curriculum gives the trainee the basic skills needed to continue their education in any craft area he or she chooses.

Modules included in the course:

- Basic 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

Campus Location(s): All

Credentials: NCCER Core Certification, TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

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:

Course: NCCER Electrical Level 1

Program total: 224 hours
Tuition & Fees: $4,500
Materials per student: $500
Minimum of six students to make the course
Books, tools and labs included
Certifications: OSHA 10, Forklift, CPR

For more information, please contact:

accelleratedtraining@tstc.edu

NCCER Industrial Maintenance Electrical & Instrumental Level 1 - Craft Training

- CLASS DELIVERY: In Person or Hybrid
- CLASS DURATION: 122.5 Hours
- CLASS SIZE: 8-12

Industrial maintenance electrical and instrumentation (IM E&I) technicians are needed in every industry that uses machinery, from automotive assembly plants to computer manufacturers. Not only do they repair and maintain electrical instruments and equipment, they also install and dismantle them. Every time a new appliance leaves a factory or a new car rolls off the line, a skilled electrical and instrumentation technician plays a role in producing it.

Modules included in the course include:

- Orientation to the Trade
- Tools of the Trade
- Fasteners and Anchors
- Oxy-fuel Cutting
- Gaskets and Packing
- Craft Related Mathematics
- Construction Drawings
- Pumps and Drivers
- Valves
- Introduction to Test Instruments
- Material Handling and Hand Rigging
- Mobile and Support Equipment
- Lubrication

Campus Location(s): All

Credentials: NCCER Industrial Maintenance Electrical & Instrumentation Level I Craft Certification, TSTC Certification of Completion

For more information, please contact:
accelleratedtraining@tstc.edu

NCCER Maritime Welding Level 1 Program

● CLASS DELIVERY: In Person or Hybrid
● CLASS DURATION: 275 Hours
● CLASS SIZE: 8-12

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 comprise 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 nine-module core curriculum that 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.

Modules included in the course:

- 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
- Oxy-Fuel 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

Campus Location(s): Harlingen

Credentials: NCCER Maritime Industry Fundamentals Certification, NCCER Maritime Welding Level I Craft Certification, TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

NCCER Welding Level 1 Program

● CLASS DELIVERY: In Person or Hybrid
● CLASS DURATION: 365 Hours
● CLASS SIZE: 8-12

- Prerequisite(s): 77.5 Hours of Core, 6th Edition

Course Description:

Welding is a high-tech industry that can take you places all over the world. From ladders to aircraft carriers, from NASCAR to national defense, and from the laboratory to sales and repair, the varied welding industry impacts virtually every industry. Technology is creating more uses for welding in the workplace. For example, new ways are being developed to bond dissimilar materials and non-metallic materials, such as plastics, composites and alloys. Also, advances in laser beam and electron beam welding, new fluxes and other new technologies and techniques all point to an increasing need for highly trained and skilled workers.

Modules included in the course:

- Welding Safety
- Oxy-fuel 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
- Join Fit-Up and Alignment
- SMAW - Groove Welds and Backing
- SMAW - Open Root Groove Welds - Plate
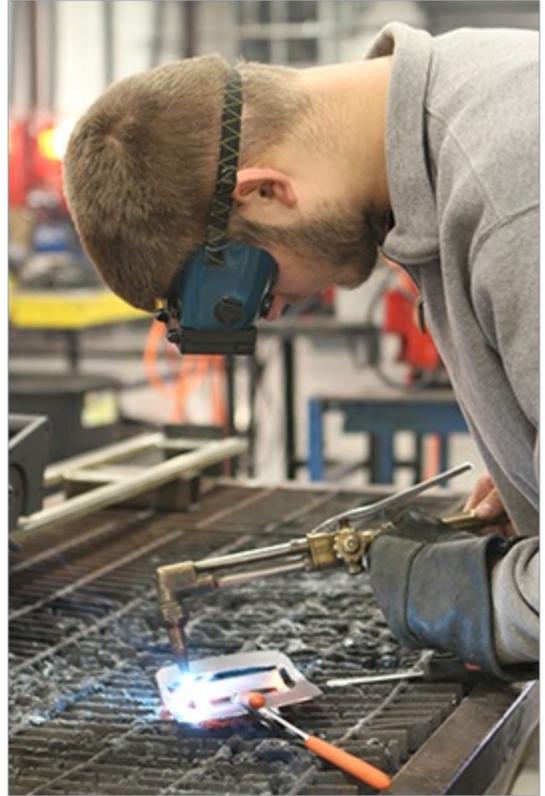
Campus Location(s): All

Credentials: NCCER Welding Level 1 Craft Training, TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

NFPA 70E ARC Flash

● CLASS DELIVERY: In Person or Virtual
● CLASS DURATION: 8 Hours
● CLASS SIZE: 6-16

This course provides guidance in order to comply with OSHA and NFPA 70E electrical safety regulations, including arc flash protection.

Modules included in the course:

- Policies and regulations applicable to electrical safety in the workplace
- General safety hazards and precautions associated with electrical systems
- Electrical tool and equipment safety
- Electrical system lockout/tagout requirements
- Requirements for working on energized equipment
- Requirements associated with arc flash protection
- Proper use of PPE (Personal Protective Equipment)
- Grounding control systems

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

OSHA 10 for Construction Industry

● CLASS DELIVERY: In Person
● CLASS DURATION: 10 Hours
● CLASS SIZE: 8-40

The OSHA 10-hour Outreach Training for the Construction Industry course provides students with a basic safety and health knowledge to include OSHA policies, procedures and standards. Special emphasis is placed on those areas that are most hazardous. Upon completion of this course, a wallet card will be issued certifying that the student has completed 10 hours of OSHA training for Construction Industry.

Modules included in the course:

- Introduction to OSHA
- OSHA Focus Four
- Personal Protective and Lifesaving Equipment
- Health Hazards in Construction
- Stairways and Ladders
- Confined Space Entry
- Cranes, Derricks, Hoist, Elevators and Conveyors
- Excavations
- Machine Handling Storage and Use
- Scaffolds
- Tools – Hand and Power

Campus Location(s): All

Credentials: OSHA 10 Certification, TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

OSHA 10 for General Industry

● CLASS DELIVERY: In Person
● CLASS DURATION: 10 Hours
● CLASS SIZE: 8-40

The OSHA 10-hour Outreach Training for General Industry course provides students with a basic safety and health knowledge to include OSHA policies, procedures and standards. Special emphasis is placed on those areas that are most hazardous. Upon completion of this course, a wallet card will be issued certifying that the student has completed 10 hours of OSHA training for General Industry.

Modules included in the course:

- Introduction to OSHA
- Walking and Working Surfaces, Including Fall Protection
- Exit Routes, Emergency Action Plans, Fire Prevention Plans, and Fire Protection
- Electrical
- Personal Protective Equipment
- Hazard Communication
- Hazardous Materials
- Material Handling
- Machine Guarding
- Introduction to Industrial Hygiene
- Permit Required Confined Space
- Respiratory Protection

Campus Location(s): All

Credentials: OSHA 10 Certification, TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

OSHA 30 for Construction Industry

● CLASS DELIVERY: In Person
● CLASS DURATION: 30 Hours
● CLASS SIZE: 8-40

The OSHA 30-hour Outreach Training for the Construction Industry course provides students with a basic safety and health knowledge to include OSHA policies, procedures and standards. Special emphasis is placed on those areas that are most hazardous. Upon completion of this course, a wallet card will be issued certifying that the student has completed 30 hours of OSHA training for the Construction Industry.

Modules included in the course:

- Introduction to OSHA
- Managing Safety and Health
- OSHA Focus Four
- Personal Protective and Lifesaving Equipment
- Health Hazards in Construction
- Stairways and Ladders
- Confined Space Entry
- Cranes, Derricks, Hoist, Elevators and Conveyors
- Excavations
- Fire Protection
- Material Handling Storage and Use
- Motor Vehicles and Mechanized Equipment
- Powered Industrial Vehicles
- Scaffolds
- Tools – Hand and Power
- Welding and Cutting
- Safety and Health Programs
- Foundations for Safety Leadership

Campus Location(s): All

Credentials: OSHA 30 Certification, TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

OSHA 30 for General Industry

● CLASS DELIVERY: In Person
● CLASS DURATION: 30 Hours
● CLASS SIZE: 8-40

The OSHA 30-hour Outreach Training for General Industry course provides students with a basic safety and health knowledge to include OSHA policies, procedures and standards. Special emphasis is placed on those areas that are most hazardous. Upon completion of this course, a wallet card will be issued certifying that the student has completed 30 hours of OSHA training for General Industry.

Modules included in the course:

- Introduction to OSHA
- Managing Safety and Health
- Walking and Working Surfaces, Including Fall Protection
- Exit Routes, Emergency Action Plans, Fire Prevention Plans and Fire Protection
- Electrical
- Personal Protective Equipment
- Hazard Communication
- Hazardous Materials
- Permit Required Confined Space
- Lockout / Tagout
- Machine Guarding
- Welding, Cutting and Brazing
- Introduction to Industrial Hygiene
- Bloodborne Pathogens
- Ergonomics
- Fall Protection
- Safety and Health Programs
- Powered Industrial Vehicles

Campus Location(s): All

Credentials: OSHA 30 Certification, TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

Patient Care Technician

- CLASS DELIVERY: In Person and Online
- CLASS DURATION: 155 hrs
- CLASS SIZE: 15-20

Course Description

Patient care technicians are involved with a variety of tasks including primary patient care, conducting blood draws, catheterizations, wound care and the removal of sutures and staples. They can also administer electrocardiography (ECGs), take vital signs, perform emergency room procedures and operate dialysis equipment. The PCT program is ideal for those who have a passion for working with patients, nurses, doctors and patients' families.

Campus Location(s): Abilene, Breckenridge, Brownwood, Harlingen and Sweetwater

Credentials: Certified Patient Care Technician/Assistant (CPCT/A), TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Phlebotomy Technician

- CLASS DELIVERY: In Person
- CLASS DURATION: 86 Hours
- CLASS SIZE: 10-16

The Phlebotomy Technician 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 phlebotomists is projected to grow 25% by 2026, much faster than the average for all occupations. Hospitals, diagnostic laboratories, blood donor centers and other locations will need phlebotomists to perform blood work.

Employment or possible career opportunities:

- Hospitals and clinics
- Diagnostic laboratories
- Blood donor centers
- Health maintenance organizations
- Public health agencies
- Nursing homes
- Research institutions

Campus Location(s): Abilene, Breckenridge, Brownwood, Harlingen and Sweetwater

Credentials: First Aid/CPR, TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Plumber Continuing Education

● CLASS DELIVERY: In Person
● CLASS DURATION: 6 Hours
● CLASS SIZE: 10-15

This course includes the six hours of continuing education required by the Texas State Board of Plumbing Examiners (TSBPE) to renew plumbing licenses in Texas (Inspector, Master, Journeyman, Tradesman or Apprentice with endorsements). It may also be used toward the initial licensing requirements for the Journeyman or Tradesman examinations.

Topics may include:

- State of the industry
- Tankless water heaters
- Water heaters (IPC Chapter 5)
- Gas piping installation (IFGC Chapter 4)
- Professional ethics.
- Resiliency and building codes.

This course has been approved by the state of Texas for six hours of continuing professional education credit for all plumbing licenses.

Campus Location(s): All

Credentials: TSBPE Continuing Education Unit, TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

Pneumatic Systems

● CLASS DELIVERY: In Person or Hybrid
● CLASS DURATION: 40 Hours
● CLASS SIZE: 8-12

Prepares individuals to connect, adjust, operate and analyze pneumatic circuits using these components: quick connect fittings, tee and cross fittings, air compressors, filters, regulators, lubricators, gauges, rotameters, directional control valves, flow control valves, check valves, cylinders and motors. Other key skills taught are: adhering to pneumatic safety rules, reading pneumatic circuit symbols and diagrams, applying the Force-Pressure-Area formula, converting absolute/gauge pressure units, performing reciprocating compressor startup/shutdown, applying Pascal's Law, setting pressure switch, filter draining, setting lubricator rate, lubricator refilling and measuring delta P.
This course supports the SACA Micro-Credential C-209.

Modules included in the course:

- Pneumatic Power Systems
- Basic Pneumatic Circuits
- Principles of Pneumatic Pressure and Flow
- Pneumatic Speed Control Circuits
- Pneumatic DCV Applications
- Air Logic
- Pneumatic Maintenance

Campus Location(s): All

Credentials: SACA Micro-Credential C-209 Pneumatic Systems 1, TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Professional Bus Driver Training

● CLASS DELIVERY: In Person
● CLASS DURATION: 120 Hours

● CLASS SIZE: 24

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 exam with the Texas Department of Motor Vehicles. 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 are:

- Must be at least 18 years of age. The U.S. Department of Transportation 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 physical as required by federal & state agencies.
- Must be able to pass a drug screen when administered.
- No felony convictions in the past five years. All criminal records are subject to review and may be required to provide a letter of intent to hire from a prospective employer.

Campus Location(s): Abilene and Harlingen

Credentials: Class B Commercial Driver's License with Passenger Endorsement and/or School Bus Endorsement, TSTC Certification of Completion

For more information, please contact:
transportationtraining@tstc.edu

acceleratedtraining@tstc.edu

Programmable Controller Systems (PLC)

● CLASS DELIVERY: In Person or Hybrid
● CLASS DURATION: 40 Hours
● CLASS SIZE: 8-12

Prepares individuals to program, configure, adjust, monitor and operate industrial programmable logic controller (PLC) systems. Key skills taught are: adhering to PLC safety rules; performing normal startup/shutdown; operating PLC in different modes; performing emergency shutdown and reset; monitoring for proper operation through indicators and PC-based PLC software; configuring processor software drivers for communication to PC; configuring and loading of HMI programs; operating HMI with PLC; configuring PLC discrete I/O; transferring programs between PC and PLC processor; interpreting basic and intermediate level PLC ladder logic programs (with contacts, coils, timers, counters, math, comparison instructions); PLC project creation/editing; and interpreting common PLC program logic applications using electro-pneumatic actuators and on/off motor control systems. This course supports the SACA Micro-Credential C-207.

Modules included in the course:

- Programmable Controller Operation
- PLC Ethernet Communication
- Basic PLC Program Instructions
- PLC Project Elements
- PLC Motor Control
- PLC Timer Instructions
- PLC Event Sequencing 1
- PLC Event Sequencing 2
- PLC Counter Instructions
- HMI Ethernet Operation
- Program Control Instructions
- Math and Data Move Instructions
- Component Troubleshooting
- Systems Troubleshooting

Campus Location(s): All

Credentials: SACA Micro-Credential C-207 Programmable Controller Systems 1, TSTC Certification of Completion

For more information, please contact:

accceleratedtraining@tstc.edu

Rigging Systems

● CLASS DELIVERY: In Person
● CLASS DURATION: 24 Hours
● CLASS SIZE: 8-12

This system teaches how to safely move loads of different shapes and sizes using a variety of methods.

Modules included in the course:

- Introduction to Rigging
- Hoists
- Slings and Hitches
- Wire Rope
- Chain Slings

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:

acceleratedtraining@tstc.edu

Safety Course Offerings

(through contracted third-party partners)

General Plant Safety

● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 4 Hours
● CLASS SIZE: 8-12

This course is designed to provide an overview of general responsibilities concerning safe work practices as they apply to the safety and health of employees during the performance of his or her job. It will include the latest updates to the Hazard Communication standard with the changes to chemicals.

Elements in this course include:

- Develop an awareness of hazards in the workplace and understand the importance of working safely.
- Ability to describe chemical safety such as hazard communications, chemical handling and lab safety.
- Demonstrate the use of personal protective gear.
- Awareness of blood borne pathogens, slips, trips, falls, ergonomics and back safety as a part of worker protection.
- General understanding of workplace safety including fire safety, machine guarding and confined space.
- Knowledge in HAZMAT topics such as hazardous materials, drum handling and small spills and leaks.
- Understanding of lockout/tagout procedures and electrical safety.

Fall Protection Awareness

● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 8 Hours

● CLASS SIZE: 8-12

This course covers the basic principles of fall protection required by OSHA 1926.503. The course fulfills basic requirements for those employees who may be exposed to hazards involving falls.

Elements in this course include:

- Employee/Employer responsibilities
- Hazard Identification and Analysis
- Fall Protection Hierarchy
- Equipment Identification and Use
- Proper Inspection and Maintenance Procedures
- Post-fall Issues: Rescue, Victim Management, Emergency Services Involvement
- Regulatory Issues

Confined Space

● CLASS DELIVERY: In Person

● CLASS DURATION: 16 Hours

● CLASS SIZE: 8-12

Course Description

Many workplaces contain spaces that are considered to be "confined" because their configurations hinder the activities of employees who must enter into, work in or exit from. The OSHA 16-Hour Confined Space Entry course provides Confined Space Entry training to any personnel required to enter confined spaces where a permit is required.

Learning Objectives

- Describe permit Confined Space
- Assess a confined space entry
- Work in accordance with confined space requirements
- Safety use of equipment and personal protective equipment

CPR, First Aid and AED
● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 8 Hours
● CLASS SIZE: 8-12

First Aid BasicPlus is a combined adult CPR, AED and first aid training program designed specifically for the occupational first aid provider. This course will help employers meet OSHA and other federal and state regulatory requirements for training employees how to respond and care for medical emergencies at work.

Elements in this course include:

- Demonstrate proficiency at opening airways, stopping bleeding and preventing shock.
- Demonstrate ability to provide proper first aid for head injuries, chest and abdominal wounds and burn injuries.
- Demonstrate ability to apply proper bandages, splinting and tourniquets.

Elevated Emergency Management

● CLASS DELIVERY: In Person or Online
● CLASS DURATION: 16 Hours
● CLASS SIZE: 8-12

This course provides the knowledge and skills needed to perform basic first aid, victim stabilization, packaging and evacuation from remote, elevated work locations. Most rural emergency response teams do not have the training or tools to reach a victim that is often over 300 feet aloft.

Elements in this course include:

- Recognize and manage an emergency in inaccessible locations.
- Prioritize care for life-threatening injuries.
- Recognize and care for traumatic injuries, including burns, external bleeding, electrocution and amputation.
- Identify and care for muscle, bone and joint injuries, including injuries to the head & neck.
- Evacuate victims with a minimal disruption in patient care.

For more information, please contact:
accleratedtraining@tstc.edu

Soldering Fundamentals

● CLASS DELIVERY: In Person
● CLASS DURATION: 80 Hours
● CLASS SIZE: 8-10

This practical, hands-on course introduces participants to the basic concepts, tools, materials, processes and skills required to hand solder through-hole and surface mount chip components according to industry standards.

Modules included in the course are:

- Introduction
- Safety and ESD
- Materials
- Equipment and tools
- Soldering concept
- Through-hole component soldering
- Basic surface mount component soldering
- Cleaning

Campus Location(s): All

Credentials: TSTC Certification of Completion

For more information, please contact:
accleratedtraining@tstc.edu
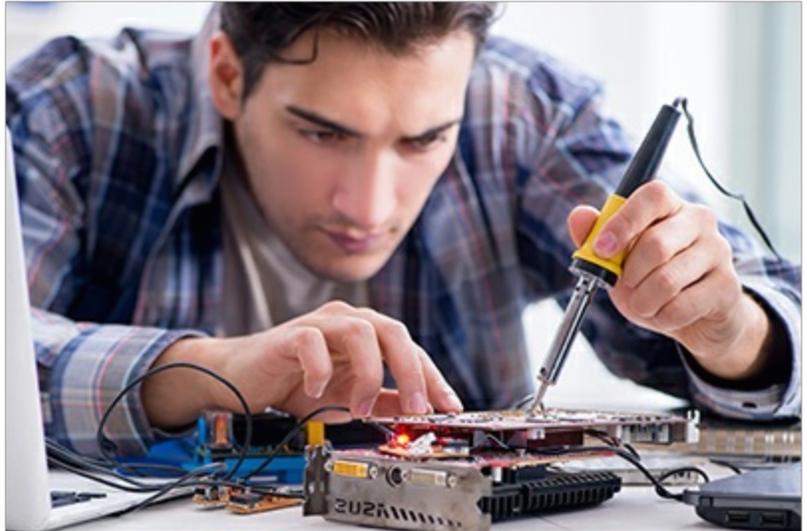
Variable Frequency Drive Systems

● CLASS DELIVERY: In Person or Hybrid
● CLASS DURATION: 32 Hours
● CLASS SIZE: 8-12

Prepares individuals to connect, configure, adjust and operate AC variable frequency motor drives using basic volts per hertz mode. Key skills taught are: adhering to VFD safety rules, operating VFD in manual using keypad, performing normal VFD startup and shutdown, performing emergency shutdown, viewing and editing parameters, changing speed with potentiometer, interfacing/configuring external discrete I/O, interpreting error codes, resetting drive errors and configuring for acceleration, deceleration and braking. This course supports the SACA Micro-Credential C-203.

Modules included in the course:

- Introduction to Variable Frequency Drives
- Introduction to Speed Control
- Speed and Torque Control
- Acceleration, Deceleration and Braking

Campus Location(s): All

Credentials: SACA Micro-Credential C-203 Variable Frequency Drive Systems 1, TSTC Certification of Completion

For more information, please contact:
acceleratedtraining@tstc.edu

Welding Safety

- CLASS DELIVERY: In Person
- CLASS DURATION: 196
- CLASS SIZE: 8-10

Course Description

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. Demonstrate safety procedures associated with oxy-fuel and arc process, perform basic welds using oxy-fuel and arc welding equipment and identify various metals.

An overview of terminology, safety procedures and equipment set-up. Practice in performing various joints using Flux Arc Welding (FCAW) equipment. Demonstrate equipment safety checks, identify Flux Core Arc Welding (FCAW) equipment parts and demonstrate the procedures of welding various joints in various positions.

Campus Location(s): Harlingen

Credentials: TSTC Certification of Completion, OSHA10, Forklift

For more information, please contact:

acceleratedtraining@tstc.edu

16. Essential Program Functions

01. What are Essential Program Functions and Technical Standards?

Essential functions are the required tasks or training elements within a program that must be performed in order to meet predetermined learning outcomes.

Technical standards are the abilities and characteristics necessary to perform the essential functions of a program, safely and effectively, as well as the defined expectations for behavior, professionalism and soft skills.

Students are expected to verify their ability to perform the technical standards of their program, **with or without accommodations.**

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the student.

Any student who believes they may not meet the technical standards listed may contact the **Access and Learning Accommodations** (adarequest@tstc.edu) office to discuss whether reasonable accommodations can be made without fundamental alteration to the requirements of the program.

Aircraft Airframe and Powerplant Technology

AMA/AMP TECHNICAL STANDARDS

Aviation Maintenance programs have established technical standards to ensure that students have the abilities required to function in the classroom, lab and hangar environment. These standards are essential for the successful completion of all phases of the program which reflect industry requirements and standards.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Category Flexibility	The ability to generate or use different sets of rules for combining or grouping things in different ways.	• Reading technical data sources such as aircraft manuals and federal regulations to determine how to group of aircraft or aircraft parts.
Deductive Reasoning	The ability to apply general rules to specific problems to produce answers that make sense.	• Reading of technical data sources to determine how they apply to specific maintenance problems.

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.	• Listening to aircraft and tool sounds to identify problems. • Visual inspection of aircraft parts to find small flaws. • Reading technical data to locate key words.
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).	• Generate theories on potential root problems from observable flaws or incorrect function of a system.
Inductive Reasoning	The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).	• Finding patterns during troubleshooting to determine a root cause that could explain all observed issues.
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).	• Ordering aircraft parts. • Working with lists of part numbers from a parts catalog. • Generating clear and concise write ups of flaws during an inspection.
Mathematical Reasoning	The ability to choose the right mathematical methods or formulas to solve a problem.	• Calculations for physics, weight and balance, or electrical system operations. • Determining bend radii, volume, area or perimeter during sheet metal work.
Memorization	The ability to remember information, such as words, numbers, pictures and procedures.	• Learning aircraft-related jargon. • Creating, reading and/or applying technical data in the form of text, graphs or drawings.
Number Facility	The ability to add, subtract, multiply or divide quickly and correctly.	• Calculation of electrical system values during measurement. • Calculation of aircraft center of gravity. • Reading gages during system operation and comparing them to acceptable values.
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.	• Hear and understand lectures and safety briefings prior to lab work. • Hear and react to auditory information such as instructions, warnings or alarms during lab work.
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.	• Communicate with instructors and lab partners, as well as customers, co-workers, managers and subordinates.
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.	• Solving non-standard problems when performing maintenance on aircraft or ground-service equipment.

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.	• Reading transitory information such as electrical meters and aircraft gages. • Observing rotating or moving parts such as propellers, flaps, ailerons and landing gear. • Identifying aircraft parts.
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.	• Determining the presence of faults within aircraft parts or systems. • Anticipating safety hazards during work in a hangar or flight line environment.
Selective Attention	The ability to concentrate on a task over a period of time without being distracted.	• Remaining productive on repetitive tasks during lecture, technical data research or hands-on work.
Spatial Orientation	The ability to know your location in relation to the environment or to know where other objects are in relation to you.	• Observing static, moving or rotating parts, tools and equipment for safety purposes, such as propellers and landing gear.
Speed of Closure	The ability to quickly make sense of, combine and organize information into meaningful patterns.	• Reading and analyzing transitory information such as meters and gages during system operation.
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).	• Using all senses to analyze faults in aircraft parts and systems, sometimes in situations where safety and speed is of the essence. • Multitasking during procedures were multiple workflows are being performed in parallel, such as performing other tasks while waiting for another lengthy process to complete.
Visualization	The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.	• Picturing what aircraft parts and systems will do in complex scenarios. Parts may or may not be visible during operation.
Written Comprehension	The ability to read and understand information and ideas presented in writing.	• Reading and comprehending technical data from aircraft manuals, federal regulations or similar materials. • Reading and comprehending internal processes and procedures, or written communication from engineers or customers.
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.	• Performing precise technical work with hand tools, hand-held power tools, or bench-mounted power tools, as well as the parts being formed or fabricated.
Control Precision	The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.	• Safe and reliable operation of hand tools, hand-held power tools, and bench-mounted power tools. • Precise adjustment of knobs, levers and switches on aircraft or service equipment. • Safe operation of ground vehicles such as aircraft, tugs and forklifts.

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.	• Placement, manipulation and removal of small parts and hardware.
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.	• Reliable, safe and precise operation of tools, aircraft parts and equipment.
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.	• Using multiple limbs to maneuver in and around aircraft, as well as to manipulate parts and aircraft controls requiring simultaneous use of both hands and feet.
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.	• Hangar safety around moving parts and aircraft.
Reaction Time	The ability to quickly respond (with the hand, finger or foot) to a signal (sound, light, picture) when it appears.	• Use of meters, gages and screens to operate and troubleshoot systems while in operation.
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.	• Operation of equipment, aircraft and tools, usually when safety is critical.
Speed of Limb Movement	The ability to quickly move the arms and legs.	• Reaction to moving aircraft, parts, equipment and tools, often when safety is critical.
Wrist-Finger Speed	The ability to make fast, simple, repeated movements of the fingers, hands and wrists.	• Safe and reliable operation of tools, equipment and controls.
Dynamic Flexibility	The ability to quickly and repeatedly bend, stretch, twist or reach out with your body, arms and/or legs.	• Performing maintenance operations on aircraft, often in tight spaces. • Navigating safely in a hangar environment.
Dynamic Strength	The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.	• Using a variety of light and heavy hand tools and power tools, often in tight spaces, and frequently overhead for long periods of time.
Explosive Strength	The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object.	• Tool use including hammers and wrenches. • Maneuvering heavy equipment or aircraft.
Extent Flexibility	The ability to bend, stretch, twist or reach with your body, arms and/or legs.	• Maneuvering inside tight spaces in aircraft or around objects in a hangar environment.

Gross Body Coordination	The ability to coordinate the movement of your arms, legs and torso together when the whole body is in motion.	• Maneuvering inside tight spaces in aircraft or around objects in a hangar environment.
Gross Body Equilibrium	The ability to keep or regain your body balance or stay upright when in an unstable position.	• Climbing up and down stairs, ladders and maintenance stands
Stamina	The ability to exert yourself physically over long periods of time without getting winded or out of breath.	• Performing physical activities such as tool use, equipment maintenance or moving large metal objects over a day-long lab or work shift.
Static Strength	The ability to exert maximum muscle force to lift, push, pull or carry objects.	• Moving aircraft, tools, equipment and parts. • Holding parts in places for long periods in order to install them on an aircraft.
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.	• Standing, often in ergonomically difficult positions, while performing work on aircraft.
Auditory Attention	The ability to focus on a single source of sound in the presence of other distracting sounds.	• Identifying correct function of aircraft systems, tools and equipment. • Performing maintenance with equipment that uses auditory alarms or signals.
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.	• Using tools to do precise modifications of parts. • Maintaining safety around power tools and moving aircraft or their parts.
Glare Sensitivity	The ability to see objects in the presence of glare or bright lighting.	• Working in dark spaces with flashlights. • Working on bright airport ramps.
Hearing Sensitivity	The ability to detect or tell the differences between sounds that vary in pitch and loudness.	• Determining proper operation of aircraft systems, engines, tools or equipment. • Troubleshooting faults in such systems.
Near Vision	The ability to see details at close range (within a few feet of the observer).	• Performing maintenance operations on using hand tools or power tools, particularly in tight spaces.
Night Vision	The ability to see under low light conditions.	• Working in low light conditions in hangars or inside aircraft, often by flashlight.
Peripheral Vision	The ability to see objects, or movement of objects, to one's side when the eyes are looking ahead.	• Maintaining safety in a hangar environment among moving aircraft, parts, systems and equipment.
Sound Localization	The ability to tell the direction from which a sound originated.	• Troubleshooting faults in aircraft parts and equipment. • Maintaining safety in a hangar environment.
Speech Clarity	The ability to speak clearly so others can understand you.	• Communication with instructors and lab partners, as well as co-workers, managers, customers and subordinates.

Speech Recognition	The ability to identify and understand the speech of another person.	• Communication with instructors and lab partners, as well as co-workers, managers, customers and subordinates.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the client or student.

While the following regulations from 14 CFR do NOT stop a person from studying aircraft maintenance in a collegiate environment, they may affect certain individuals' ability to get a license or a job after graduation:

- **65.12 Offenses involving alcohol or drugs.**

(a) A conviction for the violation of any Federal or state statute relating to the growing, processing, manufacture, sale, disposition, possession, transportation or importation of narcotic drugs, marihuana, depressant or stimulant drugs or substances is grounds for—

(1) Denial of an application for any certificate or rating issued under this part for a period of up to 1 year after the date of final conviction; or

(2) Suspension or revocation of any certificate or rating issued under this part.

(b) The commission of an act prohibited by § 91.19(a) of this chapter is grounds for—

(1) Denial of an application for a certificate or rating issued under this part for a period of up to 1 year after the date of that act; or

(2) Suspension or revocation of any certificate or rating issued under this part.

- **65.71 Eligibility requirements: General.**

(a) To be eligible for a mechanic certificate and associated ratings, a person must—

(1) Be at least 18 years of age;

(2) Be able to read, write, speak and understand the English language, or in the case of an applicant who does not meet this requirement and who is employed outside of the United States by a U.S. air carrier, have his certificate endorsed "Valid only outside the United States";

(3) Have passed all of the prescribed tests within a period of 24 months; and

(4) Comply with the sections of this subpart that apply to the rating he seeks.

(b) A certificated mechanic who applies for an additional rating must meet the requirements of § 65.77 and, within a period

of 24 months, pass the tests prescribed by §§ 65.75 and 65.79 for the additional rating sought.

Aircraft Pilot Training Technology

APT TECHNICAL STANDARDS

The Aircraft Pilot program has adopted technical standards to ensure students have the abilities required to function in the avionics classroom/laboratory environment. These technical standards are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
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.	• Determining an expected taxi route based on wind direction prior to receiving a taxi clearance.
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.	• Identifying climb-out instructions based on other traffic in the area.
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.	• Interpolating performance values on a climb chart in order to calculate rate of climb.
Memorization	The ability to remember information, such as words, numbers, pictures and procedures.	• Memorizing all of the required equipment for a flight under VFR conditions during the day.
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.	• Comprehending a complex instrument approach clearance.
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.	• Reading back a complex instrument takeoff clearance.
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.	• Noticing an abnormally high oil temperature in flight.
Selective Attention	The ability to concentrate on a task over a period of time without being distracted.	• Briefing an instrument approach procedure without neglecting to include critical information.
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).	• Operating in complex airspace while navigating, listening to air traffic control, and monitoring the systems of the aircraft.

Visualization	The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.	• Understanding how changing the location of baggage will affect the weight and balance of the aircraft.
Written Comprehension	The ability to read and understand information and ideas presented in writing.	• Utilizing the Pilot's Handbook of Aeronautical Knowledge to develop an understanding of the four forces of flight.
Written Expression	The ability to communicate information and ideas in writing so others will understand.	
Auditory Attention	The ability to focus on a single source of sound in the presence of other distracting sounds.	• Listening to the weather report for an airport while other pilots are also communicating on the radio.
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.	• Identifying the layout of an airport's runways from 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.	• Estimating the aircraft's approximate RPM setting based on engine sound.
Near Vision	The ability to see details at close range (within a few feet of the observer).	• Determining the aircraft's takeoff performance using a flow-type performance chart.
Night Vision	The ability to see under low light conditions.	• Navigating from the taxiway to the runway at night.
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.	• Repeating a complex taxi clearance using the ICAO phonetic alphabet.
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.	• Identify colored arcs on an airspeed indicator to recognize important airspeeds such as flap extension speed and never exceed speed.
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.	• Making slight adjustments to the flight controls to keep the airplane aligned with the runway centerline during landing.
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.	• Programming an instrument approach procedure into the aircraft's GPS.
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.	• Utilizing proper crosswind landing technique by coordinating aileron control with your hands and rudder control with your feet.
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.	• Timing the flare or "roundout" during landing to ensure a smooth transition from descent to landing.
Reaction Time	The ability to quickly respond (with the hand, finger or foot) to a signal (sound, light, picture) when it appears.	• Recognizing an unusual flight attitude and promptly correcting.
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.	• Promptly running the appropriate flow and verifying with the checklist during an in-flight emergency.
Wrist-Finger Speed	The ability to make fast, simple, repeated movements of the fingers, hands and wrists.	
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.	

The Aircraft Pilot Department is committed to ensuring educational access to all students and promotes full participation in

the program course requirements. Qualified students with disabilities are encouraged to access these services by contacting the Access and Learning Accommodations office to discuss their needs for accommodations. Reasonable accommodation will be provided until appropriate verification from the Access and Learning Accommodations office has been provided.

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

ACM TECHNICAL STANDARDS

The Auto Collision and Management program has established technical standards to ensure that students have the abilities required to function in the classroom, lab and co-op environment. These standards are essential for the successful completion of all phases of the program which reflect industry requirements and standards.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability is sufficient for sound problem solving reasoning. Reasoning skills are sufficient to perform deductive/inductive thinking for auto collision repair decisions.	• Evaluate vehicle and/or estimate, synthesize data and draw sound repair plan. • Collect repair information/procedures, prioritize needs, and anticipate additional damage. • Identify cause-effect situations. • Transfer knowledge from one situation to another.
Interpersonal Skills	Abilities are sufficient to interact with individuals, insurance companies and fellow coworkers.	• Establish rapport with industry, instructors, staff and colleagues. • Respect and care for others even if beliefs and values may conflict with your own. • Provide customer service regardless of the client's race, ethnicity, age, gender, religion, sexual orientation or diagnosis. • Establish and maintain professional boundaries. • Exhibit ethical behavior and exercise good judgment.

Communication Skills	Abilities are sufficient for interaction with others in verbal and written form.	- Document and interpret actions and customer responses in a clear, professional and timely manner. - Convey information to customers and others as necessary to process repairs, and direct in an accurate, effective and timely manner. - Recognize and report critical customer and vehicle information to other shop and school personnel. - Read, write, comprehend and speak the English language to facilitate communication with instructors, customers, shop and insurance personnel.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	Adapt rapidly to changing environments and/or stress.
Mobility/Motor Skills	Gross and fine motor abilities are sufficient to provide safe and effective movement and perform repairs within the auto collision work environment.	- Move around in work and repair areas. - Stand and/or walk up to eight hours per day with or without breaks. - Calibrate and use the equipment. - Push/pull 50 lbs. or greater. - Lift/move heavy objects up to 50 lbs. - Pinch/pick or otherwise work with fingers. - Make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate or assemble small objects.
Auditory Skills	Auditory abilities are sufficient to monitor and assess repair needs.	- Ability to focus on a single source of sound in the presence of other distracting sounds. - Ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing that there is a problem. - Hear auditory alarms (monitors, fire alarms, call bells). - Hear cries for help.
Visual Skills	Visual ability is sufficient for observation and assessments necessary in auto collision and refinishing.	- Observe vehicle damage and determine differences within colors. - See objects up close to 20 feet away. - Read electronic repair procedures and/or associated paper repair procedures.
Olfactory Skills	Olfactory ability sufficient to detect significant environmental and vehicle odors.	Detecting odors from the environment and vehicles.

Environmental	Possess the ability to tolerate environmental stressors.	- Safely work with potentially harmful chemicals used in auto collision repair and refinishing. - Practice standard precautions in the lab setting. - Work in an unconditioned, close quartered, crowded and/or noisy space. - Anticipate exposure to toxic substances and harmful chemicals used in auto collision repair and refinishing.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	- Calmly receive feedback. - Demonstrate honesty and integrity beyond reproach.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the client or student.

Additional Admission Requirements for Auto Collision and Management Program:

- Driver's license
- Current school required vaccinations
- Medical evaluation for respirator use
- Respirator fit test

Automation and Controls Technology

AAC TECHNICAL STANDARDS

All students in the Automation and Control Technology degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards.

To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below. Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability is sufficient to use basic computer and word processing skills. Demonstrate ability to remember, understand, apply, analyze and evaluate information.	Be able to create documents using Office Tools. Access information using the internet and in Canvas. Utilize and apply information gathered from printed and electronic resources. Process information from multiple sources. Collect, examine and interpret technical data. Logical approach to troubleshooting processes.

Interpersonal/Communication Skills	Ability to work and communicate with others whether face-to-face or through electronic means with professionalism and respect for persons from diverse social, emotional, cultural and intellectual backgrounds.	Respond with constructive feedback to instructors and/or other students. Function and contribute as part of a team. Mediate different point of views to determine the best solution.
Mobility/Motor Skills	Safely perform physical activities in a classroom and laboratory setting.	Move around and work in a classroom setting. Perform physical activities, including but not limited to maintenance, troubleshooting, repair and installation of equipment. Capable of wearing the appropriate personal protective equipment (PPE) for the required task.
Physical Senses Skills	The ability to use auditory, visual, tactile and olfactory senses to successfully perform the tasks of a technical student.	Distinguish and respond to sounds of equipment, instructor commands and communication from classmates. Distinguish shapes, colors, safety symbols and instructions. Read technical manuals. Use depth perception and peripheral vision. Utilize tools, meters and control equipment with hands-on abilities. Differentiate between the different odors from chemical, malfunctioning equipment and hazards.
Environmental	Possess the ability to tolerate environmental stressors.	Tolerate variable indoor/outdoor temperatures. Safely work with potentially hazardous materials. Work in areas that are close, crowded and/or noisy. Ability to walk and stand for extended periods of time.
Emotional/Behavioral	Possess emotional stability sufficient to assume responsibility/accountability for actions and maintain composure in stressful situations.	Maintain composure and integrity, while navigating changing environments, stressful engineering decisions and professional disagreements. Maintain focus on attention to detail, while balancing multiple responsibilities such as safety and quality.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the patient or student.

Automotive Technology

AUT TECHNICAL STANDARDS

Automotive programs have established technical standards to ensure that students have the abilities required to function in the classroom, lab, and automotive service facility/shop, environment. These standards are essential for the successful completion of all phases of the program which reflect industry requirements and standards.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability is sufficient for sound automotive judgment. Reasoning skills sufficient to perform deductive/inductive thinking for diagnostic decisions.	• Evaluate vehicle PID data, and draw sound conclusions for diagnosis. • Identify the cause, concern and correction of a vehicle problem. • Understand the negative effects on the human body due to unsafe lab practices.
Interpersonal Skills	Abilities are sufficient to interact with individuals, families and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Establish rapport with customers, staff, colleagues and groups. • Describe how to obtain and document customer contact information.
Communication Skills	Abilities are sufficient for interaction with others in verbal and written form.	• Document and interpret vehicle concerns with the customer, service consultant and technician. • Demonstrate appropriate greeting skills.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	• Adapt rapidly to changing environments and/or stress.

Mobility/Motor Skills	Gross and fine motor abilities are sufficient to provide safe and effective vehicle service and repair.	- Quickly and repeatedly bend, stretch, twist or reach out with your body, arms and/or legs. - Coordinate the movement of your arms, legs and torso together when the whole body is in motion. - Keep or regain your body balance or stay upright when in an unstable position. - Exert yourself physically over long periods of time without getting winded or out of breath. - Push/pull 100 lbs. or greater. - Lift/move heavy objects up to 50 lbs. - Pinch/pick or otherwise work with fingers. - Work with greasy parts and tools, sometimes in uncomfortable positions.
Auditory Skills	Auditory abilities are sufficient to distinguish sounds.	- Hear sounds of a bad wheel bearing and/or CV joint. - Hear wind noises, such as a bad windshield seal. - Hear the different engine noises, cracked flex plate, collapsed lifter, lack of/no oil pressure, etc.
Visual Skills	Visual ability sufficient for observation and assessment during diagnosis.	- Read a vehicle repair order. - See objects up to 20 feet away. - Read electronic service service information.
Tactile Skills	Tactile ability is sufficient for physical assessment.	- Distinguish the surface finish of a brake rotor. - Feel the surface finish of a honed cylinder block. - Feel the consistency of fluids to determine if grit is present.
Olfactory Skills	Olfactory ability sufficient to detect significant vehicle odors.	- Detect odors from vehicles, such as a sulfur smell from an overheated catalytic converter or overcharged battery. - Smell coolant or oil burning off of an exhaust manifold.
Environmental	Possess the ability to tolerate environmental stressors.	- Safely work with potentially harmful chemicals used in automotive shop settings. - Practice standard precautions in the automotive shop or lab. - Work in areas that may be cold, hot and/or noisy.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	- Calmly receive feedback. - Demonstrate honesty and integrity beyond reproach.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the vehicle, equipment or student.

Additional Admission Requirements for the Automotive Program:

- Driver's License (Coop, Internship, Practicum)

Avionics Technology

AVI TECHNICAL STANDARDS

The Avionics Technology program has adopted technical standards to ensure students have the abilities required to function in the avionics classroom/laboratory environment. These technical standards are essential for successful completion of the program. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
English Language Skills	Per FAA requirement, the ability to read, write, and understand the English language.	
Attention to Detail	The ability of being careful about detail, accuracy and thoroughness in completing tasks.	• Attention to detail and accuracy when completing tasks while using avionic service tools & equipment.
Deductive Reasoning	The ability to apply general rules to specific problems to produce answers that make sense.	• Apply general rules specific to avionic systems to determine root cause of failures.
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.	• Identify audible sounds in avionic warning and detection systems.
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).	• Follow a specific order of operations that are critical to procedures in avionics.
Mathematical Reasoning	The ability to choose the right mathematical methods or formulas to solve a problem.	• Ability to perform calculations such as Ohms Law to solve avionics electrical/electronic system malfunctions.
Memorization	The ability to remember information, such as words, numbers, pictures and procedures.	• Perform routine inspection & maintenance procedures on avionic aircraft systems.
Number Facility	The ability to add, subtract, multiply or divide quickly and correctly.	• Perform calculations to determine performance test results are within the values of avionic system specifications.

Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.	• Ability to follow supervisory directions and instructions on avionic systems.
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.	• Communicate with material handlers and/or parts department to provide clear explanation of replacement units in avionics.
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.	• Accurately compare similarities or differences when performing modifications & installation of avionic systems.
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.	• Recognize issues of incorrect riveting, drilling & hole location in avionics structural systems.
Selective Attention	The ability to concentrate on a task over a period of time without being distracted.	• Focus on the task at hand when performing diagnostic tests, inspections & repairs without distraction.
Visualization	The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.	• Ability to visualize the outcome and fit when performing fabrications to aircrafts.
Written Comprehension	The ability to read and understand information and ideas presented in writing.	• Able to read service & repair instruction manuals in avionics & aircrafts systems.
Written Expression	The ability to communicate information and ideas in writing so others will understand.	• Ability to write detailed descriptions of work performed on avionic systems to demonstrate compliance with rules and regulations.
Auditory Attention	The ability to focus on a single source of sound in the presence of other distracting sounds.	• Ability to listen and focus on aircraft audible warning systems without distraction.
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.	• Ability to judge close and far away objects during movement, taxiing and towing of aircraft at facilities.

Hearing Sensitivity	The ability to detect or tell the differences between sounds that vary in pitch and loudness.	• Aircraft avionic systems require the ability to detect different audio sounds that vary in pitch and frequency.
Night Vision	The ability to see under low light conditions.	• Aircraft electronic systems require precise near vision ability to service wiring harnesses.
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.	• Noise, vibration & harshness identification require the ability to determine where sound originated.
Speech Clarity	The ability to speak clearly so others can understand you.	• Ability to speak clearly is required in an industrial aircraft repair facility due to excessive noise level environments.
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.	• Match and or differentiate between shades of color is required when working with electrical wiring color codes &
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.	• Ability to keep limbs steady when removing, installing & testing avionic components.
Control Precision	The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.	• Ability to operate tools and equipment that are used in avionic system repairs.
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.	• Movements that are performed during avionic system test and repairs require precise coordination to prevent system component damage.
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.	• Ability to perform movements that are required when servicing, testing or replacing avionic systems.

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.	• Ability to use multi-limb coordination when boarding aircraft to perform avionics system repairs.
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.	• Ability to time movements to prevent equipment and or property damage in aircrafts & avionic systems.
Reaction Time	The ability to quickly respond (with the hand, finger or foot) to a signal (sound, light, picture) when it appears.	• For safety purposes must have the ability to react quickly to prevent injury to self and or others.
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.	• Ability to react with appropriate movements and body parts as the best course of action depending on the situation.
Speed of Limb Movement	The ability to quickly move the arms and legs.	• Ability to move quickly to meet time constraints on service, testing and repairs on aircraft avionic systems.
Wrist-Finger Speed	The ability to make fast, simple, repeated movements of the fingers, hands and wrists.	• Ability to move fingers, hands, and wrists to conduct removal and installation of flight control systems.
Dynamic Flexibility	The ability to quickly and repeatedly bend, stretch, twist or reach out with your body, arms and/or legs.	• Performing work on aircraft systems requires the ability to move body parts when boarding, climbing, and entering aircraft capsules.
Dynamic Strength	The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.	• Dynamic strength is required when lifting, pushing, and pulling significant weight bearing components.
Extent Flexibility	The ability to bend, stretch, twist or reach with your body, arms and/or legs.	• Different configurations of small or large aircrafts require flexible mobility of body parts.
Gross Body Equilibrium	The ability to keep or regain your body balance or stay upright when in an unstable position.	• Equilibrium is necessary to keep in balance when working on the outermost surface of an aircraft to perform repairs.
Stamina	The ability to exert yourself physically over long periods of time without getting winded or out of breath.	• Performing avionic repairs requires extensive periods of standing, sitting, stooping, and bending for long periods of time

Static Strength	The ability to exert maximum muscle force to lift, push, pull or carry objects.	• Exerting excessive force is required for the task on hand when prying, pulling and or pushing 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.	• Strength required when handling aircraft modification, harnesses, & mobile equipment.
Other	The ability to work in confined spaces that require significant flexibility.	• Ability to be in confined spaces to perform work on avionic systems.

The Avionics Department is committed to ensuring educational access to all students and promotes full participation in the program course requirements. Qualified students with disabilities are encouraged to access these services by contacting the Access and Learning Accommodations office to discuss their needs for accommodations. Reasonable accommodation will be provided until appropriate verification from the Access and Learning Accommodations office has been provided. To contact the Access and Learning Accommodations office, email adarequest@tstc.edu.

Biology

BIO TECHNICAL STANDARDS

The Associate of Science in Biology degree provides the opportunity to complete the core curriculum of general education courses along with additional courses in the field of biology. All students in the Associate of Science in Biology degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Description	Examples

Critical Thinking/Problem-Solving Skills	Ability to develop and apply memory, comprehension, analysis, and evaluation skills	- Apply general rules to specific problems to produce answers that make sense. - Generate or use different sets of rules for combining or grouping things in different ways. - Identify or detect a known pattern (a figure, object, word or sound) that is hidden in other distracting material. - Generate a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity). - Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events.) - 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). - Remember information, such as words, numbers, pictures, and procedures. - Add, subtract, multiply, or divide quickly and correctly. - Listen to and understand information and ideas presented through spoken words and sentences. - Generate unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem. - Identify when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing that there is a problem. - Make sense of, combine, and organize information into meaningful patterns. - Imagine how something will look after it is moved around or when its parts are moved or rearranged. - Collect data, prioritize needs/tasks, and anticipate results. - Identify cause-effect relationships in various situations.
Interpersonal Skills	Ability to interact safely with diverse instructors, staff, and other students, whether face-to-face or through electronic means	- Exhibit ethical behavior and exercise good judgment in keeping with Texas State Technical College's Code of Student Conduct as published in the Student Handbook. - Ask questions and/or seek assistance. Appropriately advocate for your own needs. - Follow simple instructions from faculty and staff. - Work in groups with other students to successfully complete a task.
Communication Skills	Abilities are sufficient for interaction with others in verbal, nonverbal, or written form	- Communicate information and ideas in speaking so others will understand. - Read and understand information and ideas presented in writing. - Communicate information and ideas in writing so others will understand. - Comprehend written material to perform laboratory test procedures correctly and independently.

Auditory Skills	Auditory abilities are sufficient for classroom or online needs.	• Distinguish and respond to sounds at a close range including but not limited to an instructor, other students in a classroom, and audio recordings.
Visual Skills	Visual ability is sufficient for comprehending instructors' gestures, printed materials, images, or videos projected on a screen.	• Tolerate working indoors in artificial light and the glare of a computer screen. • Discern text from left to right and top to bottom for reading in English. • Identify similarities and differences in visual images. • Visual acuity to use scientific equipment safely and accurately.
Tactile Skills	Tactile ability is sufficient for written communication and handling of equipment.	• Use writing utensils, keyboards, and computer controls. • Use manipulatives, calculators, and scientific equipment. • Assess, examine, and interpret findings through touch.
Mobility/Motor Skills	Physical abilities sufficient to function in a classroom or online setting while following the College's Code of Student Conduct so that the learning environment is not compromised. Gross and fine motor abilities are sufficient to communicate results.	• Perform physical activities to present knowledge and ideas (e.g. speak audibly and/or use a device/pen/marker/pointer, raise a hand, give thumbs up, etc. to indicate a response to a question). • Participate in class in the room environment with appropriate physical and verbal restraint. • Tolerate wearing personal protective equipment including but not limited to masks, safety goggles, aprons, and gloves. • Manipulate sensitive/hazardous materials in an appropriate manner. • Possess the psychomotor skills to manipulate various instruments that require eye-hand coordination, and perform manual laboratory procedures with dexterity.
Coping Skills	Abilities are sufficient for adapting to stress, adjusting to new situations, and adopting new mindsets and strategies for learning.	• Seek support and/or follow reporting procedures as needed for injuries, illness, Title IX concerns, etc. as outlined in the Student Handbook. • Solve personal and interpersonal problems. • Be flexible enough to try multiple ways to learn new things. • Cope with your own emotions. • Cope with strong emotions in others. • React to feedback in a professional manner.
Environmental Skills	Ability to tolerate environmental stressors.	• Tolerate indoor classroom environments with fluorescent lights and variable temperatures. • Safely work with potentially harmful chemicals used in lab settings. • Tolerate exposure to allergens (e.g. latex gloves), and strong odors and soaps.
Behavioral Skills	Possess sufficient emotional stability and self-regulation skills to assume personal responsibility and accountability for following the Code of Student Conduct and Code of Classroom Conduct as outlined in the Student Handbook.	• Engage in the learning process. • Receive and respond to constructive feedback. • Demonstrate honesty and integrity. • Adapt to, or deal with the unexpected. • Focus attention on the task. • Meet reasonable, predetermined deadlines. • Exercise safe and sound judgment.

Technical standards as stated here reflect performance abilities that are necessary for a student to successfully complete the requirements of the specified program. Students should verify their ability to perform these technical standards with or without accommodations. In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the student.

Texas State Technical College is invested in full compliance with the Americans with Disabilities Act (ADA). Any student who believes they may not be able to perform the functions listed may contact the Access and Learning Accommodations (adarequest@tstc.edu) office to discuss whether reasonable accommodations can be made without fundamental alteration to the requirements of the program.

Biomedical Equipment Technology

BET TECHNICAL STANDARDS

All students in the Biomedical Equipment Technology program are expected to meet certain technical standards that are essential for the successful completion of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability is sufficient to apply engineering principles and practices to address technical problems and challenges in class and labs with medical equipment. Understand engineering and technical documents and interpret the data to solve problems.	- Use of a scientific calculator. - Mathematical tables/charts/references.
Interpersonal Skills	Abilities are sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds. Must be able to effectively work in teams or groups.	- Work in a self-sufficient and self-directed manner. - Work in a team or group setting with students of different backgrounds, ethnicities or genders.
Communication Skills	Abilities are sufficient for interaction with others in verbal and written form. Effectively communicate using oral and written technical documents. Must be able to read equipment instructions and machine controls in English.	- Read technical specifications. - Read and understand machine labels, controls and instruction materials. - Give verbal directions or follow verbal directions from other members of the Biomedical team.
Coping Skills	Abilities are sufficient to be productive in a classroom or lab with medical equipment.	- Must be able to adapt to different teaching modes, lab settings or classroom environments. - Be able to work individually or in a group.

Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction. Must be able to lift up to 50 pounds. Must be able to operate electrical/mechanical controls. Gross and fine motor abilities are sufficient to provide safe and effective preventive maintenance on medical equipment.	• Move around clinical operatories, operating rooms, sterilization rooms and other treatment areas. • Administer CPR and BLS procedures. • Repair, calibrate and troubleshoot medical equipment. • Hand/eye coordination.
Auditory Skills	Auditory abilities are sufficient to work effectively and safely. Must be able to respond to audible indicators and discern potentially hazardous noises from medical equipment.	• Hear sound of medical equipment being properly utilized, the sound of slow/high-speed centrifuge and medical devices, proper use of electrical analyzers to monitor equipment functions. • Must be able to discern audible equipment alarms and tones. • Must be able to hear instructions from faculty in a workshop environment.
Visual Skills	Visual ability is sufficient for observation and assessment necessary in the classroom, lab and other locations on the campus. Reading prints, schematics, charts and spreadsheets (written or on a computer monitor). Must be able to respond to visual alarms on medical equipment.	• Monitor medical equipment parameters and gauge equipment life cycles. • See and respond to warning light(s). • Read information on a computer monitor, TV or other screen devices (i.e., touchscreen or teach pendant).
Tactile Skills	Tactile skills adequate for work in a classroom or lab with industrial equipment. Have appropriate dexterity to use common industry hand tools.	• Use hand tools needed to complete labs or projects.
Environmental	Must be able to function safely under varying environmental factors. Must be able to wear lab-specific Personal Protective Equipment (PPE).	• Appropriately wear PPE, such as safety glasses, face shields, respirators, gloves and hearing protection. • Tolerate course activities in an industrial lab with equipment noise and operating equipment.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Adapt rapidly to changing environments and/or stress. • Calmly receive feedback. • Demonstrate honesty and integrity beyond reproach. • Must be able to work on multiple projects while adhering to deadlines.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the patient or student.

Texas State Technical College is invested in full compliance with the Americans with Disabilities Act (ADA). Support Services is part of Student Services and is located in the EK Building on the Harlingen campus. For detailed information or to request accommodations, visit Support Services. An appointment is recommended prior to enrollment in order to discuss any special concerns.

Additional Admission Requirements for the BET program are:

- Driver's License or Valid Identification Card
- Current Program Required Vaccinations

Building Construction Technology

BCT TECHNICAL STANDARDS

All students in the Building Construction Technology Program are expected to meet certain technical standards that are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standard	Example
Critical Thinking & Problem-Solving Skills	Abilities sufficient for classroom, lab and work in an industry situation. Abilities sufficient to understand orders, instructions and descriptions. Abilities sufficient to read and comprehend construction blueprints, specifications, building codes, shop drawings, OSHA regulations and warning labels in English.	• Be able to review construction blueprints for project coordination. • Be able to determine appropriate materials and tools required to complete the work. • Be able to be accurate with measurements using a measuring tape. • Apply logic and technical knowledge to current situations and problems. • Be able to make decisions to ensure safety during the work.
Interpersonal Skills	Abilities sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Establish and maintain mature, sensitive and effective relationships with colleagues, faculty, staff and construction industry professionals. • Demonstrate time management skills. • Be able to work alone or in a group and stay focused on the current task.

Communication Skills	Effective communication with others, both verbally and in writing. Abilities sufficient to effectively use a computer and tablet. Abilities sufficient to communicate with others effectively and clearly in English and to accurately gather, disseminate and clarify specific information.	• Demonstrate active listening skills. • Speak clearly to others regarding specific tasks. • Provide accurate and legible handwritten or electronically written reports. • Communicate via email in a professional and ethical manner. • Read, comprehend and communicate information for each assignment and lab to the instructor and other students. • Comprehend/follow written and verbal instructions.
Coping Skills	Function and adapt to circumstances including highly stressful or rapidly changing situations. Abilities sufficient to be productive in a classroom, lab or industry situation.	• Solve personal and interpersonal problems. • Ability to effectively handle stress and continue to function safely in a variety of situations and interactions. • Balances internal needs and external demands. • Recognize personal limitations and request assistance as appropriate. • Be able to cope with deadlines. • Respond appropriately to constructive feedback.
Mobility/Motor Skills	Possess the ability to lift, stand, stretch, squat and crawl or contort to any position as required by the situation. All positions listed above will be encountered in the class, lab or a work-based learning setting on a consistent basis. Possess excellent hand-eye coordination, flexibility, strength, dexterity and balance. Abilities sufficient to climb a ladder or scaffolding without assistance.	• Be able to physically navigate around objects or obstacles on the floor or overhead. • Reach/bend for extended periods of time without breaks. • Operate hand and/or power tools continually in an acceptable and safe manner. • Be able to work up to 90 minutes without taking a break. • Be able to lift a dead weight of at least 40 lbs. from chest height from floor level without assistance. • Be able to climb ladders up to 35 feet in length while carrying tools and equipment. • Have the dexterity to use hand and power tools in confined spaces and at high elevations over six feet. • Ability to move oneself about a construction site safely. • Ability to properly use machinery while also wearing required PPE. • Ability to climb a scaffold and perform the work in an acceptable and safe manner.

Auditory Skills	Abilities sufficient to communicate with co-workers at a moderate distance without a line of sight. Ability to be comfortable working in an environment with loud noises. Auditory abilities are sufficient to hear and respond to instruction and communicate safely with others while surrounded by industrial noise.	• Willing to work in areas where decibel levels may exceed 85 decibels. • Ability to use/wear hearing protection. • Be capable of distinguishing various sounds, tones and pitches emitted by tools and equipment. • Be able to hear verbal instructions from co-workers at a moderate distance without line of sight. • Capable of responding to others over loud decibel tool operations.
Visual Skills	Visual ability (corrected or not) is sufficient for observation, assessment and safety necessary in both online and classroom environments, in lab settings, or in construction environments.	• Ability to see videos in classroom, online and in a lab environment. • Prepare and submit written and online reports. • Visual acuity to identify, read and understand directions and warnings on signs, equipment or materials. • Be able to see in low or poor lighting conditions due to lab requirements. • Read blueprints, specifications, sketches, schematic diagrams and other printed documents. • Be able to visualize depth and dimension both straight and peripherally. • Able to clearly distinguish colors.
Tactile Skills	Tactile skills adequate for work in a class, lab or industry environment.	• Be able to determine hot or cold temperatures. • Inspect safety equipment, tools and materials for damage, wear or failure by touch.

Environmental Awareness	Abilities are sufficient to maneuver safely on a construction site. Comfortable working at significant heights, in crawl spaces and in confined spaces. Able to wear the appropriate and required personal protective equipment as required in the performance of specific duties and as required by the industry. Abilities sufficient to function safely under varying environmental factors. Abilities sufficient to remain attentive in the classroom and lab settings.	• Practice standard safety precautions and regulations. • Able to wear a five pound tool belt for up to 10 hours per day. • Be able to wear the appropriate and required personal protective equipment, such as hard hats, safety glasses, steel-toe shoes, gloves face mask, reflective vest and safety harnesses for long periods of time as required in the performance of specific duties as required by the industry. • Must be able to work in confined spaces or at heights up to 35 feet. • Must be able to work indoors and outdoors, in variable weather conditions, and both hot and cold temperatures. • Must be able to work in an environment containing hazards that include sharp objects, moving equipment, trip hazards and uneven surfaces. • Must maintain focus and productivity in a noisy classroom, lab or workplace.
Emotional/Behavioral	Emotional stability is sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions. Ability to demonstrate professional behaviors and a strong work ethic.	• Must maintain focus and productivity in a noisy classroom, lab or workplace. • Adapt rapidly to changing environments and/or stressful situations. • Calmly receive feedback. • Demonstrate honesty and integrity beyond reproach. • Demonstrate flexibility to calmly change course in the middle of an assignment.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of others.

In compliance with the Americans with Disabilities Act Amendments Act of 2008, Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act, Texas State Technical College is committed to ensuring educational access to its students and promotes full participation in its programs, services and course requirements. Qualified students with disabilities are encouraged to access these services by contacting the Access and Learning Accommodations office to discuss their needs for accommodations. Students reserve the right to request services at any time during the semester, however, instructors are not allowed to provide classroom accommodations to a student until appropriate verification from the Access and Learning Accommodations office has been provided. For information, please contact the Access and Learning Accommodations office in a timely manner. Statewide Contact Information: Email: adarequest@tstc.edu Phone #: 254.867.3842

Business Management Technology

BMT TECHNICAL STANDARDS

All students in the Business Management Technology program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Utilize critical thinking skills to assemble, analyze, process and communicate essential information about financial operations.	• Perform bookkeeping functions in a simulated case environment. • Complete the accounting cycle. • Calculate and report payroll and payroll-related liabilities. • Generate financial statements utilizing a computerized accounting software program. • Demonstrate an understanding of basic principles and practices of contemporary business. • Examine a company's industry and competitive environment. • Examine the functions of personnel/human resource management within an organization. • Summarize the use of ethical standards and norms as they relate to organizational culture. • Analyze current financial statements and identify financial needs for achieving organizational goals. • Identify legal and ethical issues relating to the industry.
Interpersonal Skills	Work collaboratively and effectively with a diverse population in a variety of settings and situations.	• Work cooperatively with partners and individuals. • Work diligently and devote the necessary time to complete tasks. • Exhibit behavioral and ethical skills appropriate to professional interactions. • Exercise good judgment.
Communication Skills	Effectively communicate (verbal and non-verbal) in the classroom and in a simulated business environment.	• Understand and respond to written and oral communications. • Use effective listening skills when communicating. • Express information coherently and sensitively. • Receive, organize, prioritize and transmit information.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	• Solve personal and interpersonal problems. • Multitask in stressful environments and meet deadlines. • Ability to prioritize issues to meet deadlines.

Mobility/Motor Skills	Perform office functions such as sitting and standing for long periods of time. Possess good dexterity (eye and hand coordination).	- Use a computer to accurately perform duties related to accounting and data entry. - Use office equipment effectively.
Auditory Skills	Comprehension and understanding of spoken language.	- Articulate necessary information in an understandable form. - Respond to verbal and written instructions. - Place and receive telephone or video calls for conducting business.
Visual Skills	Sufficient vision to perform accounting data analysis, data entry, preparation of reports and usage of appropriate technology. Ability to work on a computer for up to three hours with breaks. Ability to read printed and written instructions.	- Ability to use computers to conduct simulated business transactions. - Ability to read and interpret business documents and forms necessary for simulated business transactions. - Work with columns of numbers with precision. - Demonstrate the ability to read and interpret financial documents and reports.
Tactile Skills	Use a computer keyboard, number keypad and mouse repetitively. Operate and utilize office materials and office equipment/software daily.	- Use a computer to accurately perform duties related to financial management and data entry. - Use various software programs required in the accounting field, including Microsoft Office, QuickBooks and various tax-related programs.
Environmental	Ability to tolerate reasonable levels of light, sound and temperature.	- Work in areas that may be close, crowded and/or noisy. - Prioritize requests and meet deadlines. - Multitask using different operating systems.
Emotional/ Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions. Demonstrate respect for self and others. Project an image of professionalism and a strong work ethic.	- Maintain a professional appearance and actions. - Exercise independent judgment to effectively solve problems and make decisions. - Adapt to changing environments and/or stress. - Demonstrate honesty and integrity beyond reproach. - Work independently with minimal supervision.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the patient or student.

Chemical Dependency Counseling

CDC TECHNICAL STANDARDS

Chemical Dependency Counseling programs have established technical standards to ensure that students have the abilities required to function in the classroom and counseling environment. These standards are essential for the successful completion of all phases of the program which reflect certification and licensure requirements.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification or licensure exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability is sufficient for sound clinical judgment. Reasoning skills sufficient to perform deductive/inductive thinking for counseling decisions.	• Evaluate client or instrument responses, synthesize data and draw sound conclusions • Collect data, prioritize needs and provide feedback. • Identify cause-effect in therapeutic counseling setting. • Transfer knowledge from one case to another.
Interpersonal Skills	Abilities are sufficient to interact with individuals, families and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Establish rapport with clients, instructors, staff, colleagues and groups. • Respect and care for clients whose appearance, condition, beliefs and values may conflict with your own. • Develop therapeutic relationships regardless of the client's race, ethnicity, age, gender, religion, sexual orientation or diagnosis. • Establish and maintain therapeutic boundaries. • Exhibit ethical behavior and exercise good judgment.
Communication Skills	Abilities are sufficient for interaction with others in verbal and written form.	• Document and interpret actions and client responses in a clear, professional and timely manner. • Convey information to clients and others as necessary to teach and direct in an accurate, effective and timely manner. • Recognize and report critical client information to the supervisor. • Read, write, comprehend and speak the English language to facilitate communication with instructors, clients and their family members and other mental health care professionals.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	• Adapt rapidly to changing environments and/or stress.
Mobility/Motor Skills	Gross and fine motor abilities are sufficient to provide safe and effective counseling sessions.	• Move around in work and treatment areas.

Auditory Skills	Auditory abilities are sufficient to monitor and assess mental health needs.	• Hear client narrative in session. • Hear auditory alarms (monitors, fire alarms, call bells).
Visual Skills	Visual ability sufficient for observation and assessment necessary in counseling.	• Observe client responses, and non-verbal cues. • Observe body language (e.g. threatening, self-harm, lethargy, intoxication, detoxification, agitation). • Read electronic health records and/or associated paper records.
Tactile Skills	Tactile ability is sufficient for counseling and documentation.	• Perform functions and/or those related to therapeutic counseling and documentation.
Olfactory Skills	Olfactory ability sufficient to detect significant environmental and client odors.	• Detecting odors from clients.
Environmental	Possess the ability to tolerate environmental stressors.	• Safely work with potentially combatant clients. • Practice Standard Precautions in the clinical counseling setting. • Anticipate exposure to potentially agitated clients.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Calmly provide and receive feedback. • Demonstrate honesty and integrity beyond reproach. • Maintain ethical standards. • Maintain sobriety.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the client or student.

Additional Admission Requirements:

- Student's must review regulations and criteria that determine eligibility for licensure per the Texas Administrative Code 25 TAC Section 140.431 and be able to pass the criminal history standards in [140.431](140.431)

Computer Networking & Systems Administration

CNS TECHNICAL STANDARDS

All students in the Computer Networking & Systems Administration program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations

will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the patient or student.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Make reasoned judgments that are logical and well-thought-out.	- Receive, interpret, and correctly complete work (ie: reading, research, writing, and presentations). - Evaluate case studies and problems, and identify appropriate approaches to solve the problem. - Identify cause and effect relationships in IT situations. - Interpret user requirements to design a workable solution for the user. - Develop practical solutions in a simulated and live environment.
Attention to Detail	The ability to carefully and accurately focus on small details, ensuring that tasks are completed correctly and efficiently.	- Identifying and resolving complex technical issues often requires a keen eye for detail to spot subtle errors or inconsistencies. - Accurately interpreting and analyzing data requires careful attention to detail to avoid misinterpretations and errors. - Capture key details from lectures, discussions, and readings.
Learning Agility	Students will need the ability to learn and adapt to new technologies quickly.	- Actively seek out new information, skills, and perspectives through reading, and engaging in diverse conversations. - Resilience is essential for staying motivated and engaged in the learning process.
Time management skills	Computer networking professionals often have to juggle multiple tasks and deadlines. Students need to be able to manage their time effectively to meet deadlines and ensure that networks are operating smoothly.	- Clearly define goals and prioritize tasks based on their importance and urgency. - Regularly review schedules and make adjustments as needed. As priorities and workload change, it may be necessary to adapt time management strategies.

Interpersonal Skills	Interact with individuals and groups from a variety of social, emotional, cultural, and intellectual backgrounds with different IT skill sets.	• Propose and present ideas and achieve buy-in, consensus, and decisions. • Follow the directions of instructors, fellow students, and potential/actual clients. • Establish rapport with clients and colleagues. • Demonstrate sufficient emotional health to perform under stress, exercise good judgment, and promptly complete all academic and work-based learning responsibilities. • Complete group projects that require interaction with peers, including online interaction and the interpretation of written communication. • Accept feedback on projects and adapt to changing project scope. • Know how to ask for help when needed.
Communication Skills	Communicate (both written and verbal) with peers, faculty, colleagues, and members of the community.	• Provide and follow directions from other members of the class or instructors. • Present ideas and create presentations to convey those ideas. • Demonstrate active listening skills. • Work as a professional group member. • Present information to panels of instructors and advisory boards, in both verbal and written form. • Receive, organize, prioritize, and transmit information. • Document problems, and procedures (verbally, written, and electronically). • Adapt communication to individuals' abilities to understand.
Coping Skills	Maintain a state of harmony.	• Solve personal and interpersonal problems. • Minimize stress and conflict. • Balance internal needs and external demands.
Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction.	• Use peripheral devices to communicate with a computer. • Possess gross and fine motor abilities sufficient to safely and effectively handle computer equipment. • Physical abilities are sufficient to move and manipulate around equipment in limited spaces. • Be able to stand, sit, and walk when completing computer tasks.
Auditory Skills	Communicate with the instructor, employers, and colleagues.	• Discern directions in classroom, online, and lab environments. • Review videos in the classroom, online, and lab environment. • Discern instructions and responses that define problems or issues.

Visual Skills	Visual ability is sufficient for observation and assessment necessary in the classroom or work environment.	- Observe computer issues and possible problems. - Observe client responses (ie: change in tone, facial expression, body language). - Review documents (both printed and online).
Tactile Skills	Tactile skills are sufficient for observation and assessment necessary in the classroom or work environment.	- Inspect components for wear or failure. - Identify problems such as overheating.
Environmental	Adapt to changing environments.	- Practice standard safety precautions in the field. - Work in areas that may be close, crowded, and/or noisy. - Adapt to changes in class or work environment such as virtual or alternative schedules. - Remain calm in stressful situations.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	- Adapt rapidly to changing environments and/or stress. - Calmly receive feedback. - Demonstrate honesty and integrity beyond reproach. - Control emotions for the benefit of others.

Computer Programming Technology

CPT TECHNICAL STANDARDS

All students in the Computer Programming Technology program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Make reasoned judgments that are logical and well-thought-out. Accurately follow directions for assignments/ assessments.	- Receive, interpret, and correctly complete work (i.e.: reading, research, writing, and presentations). - Evaluate case studies and problems, and identify appropriate approaches to solve the problem. - Identify cause and effect relationships in programming situations. - Interpret user requirements to design a workable solution for the user. - Develop practical solutions in a simulated and live environment. - Reading program requirements or soliciting program requirement information from an instructor, employer or client and using that information to code/design a computer program that achieves the objectives given.

Interpersonal Skills	Interact with individuals and groups from a variety of social, emotional, cultural, and intellectual backgrounds with different IT skill sets.	- Propose and present ideas. - Follow the directions of instructors, fellow students, and potential/actual clients. - Engage with instructors to learn and improve performance based on assignment feedback. - Demonstrate sufficient emotional health to perform under stress, exercise good judgment, and promptly complete all academic and work-based learning responsibilities. - Complete group projects that require interaction with peers, including online interaction and the interpretation of written communication. - Accept feedback on projects and adapt to changing project scope. - Know how to ask for help when needed.
Communication Skills	Communicate (both written and verbal) with peers, faculty, colleagues, and members of the community.	- Provide and follow directions from other members of the class or instructors. - Present ideas and create presentations to convey those ideas. - Demonstrate active listening skills. - Work as a professional group member. - Present information to panels of instructors, in both verbal and written form. - Receive, organize, prioritize, and transmit information. - Document problems, and procedures (verbally, written, and electronically). - Interact in conversations with instructors and peers.
Coping Skills	Maintain a state of harmony.	- Solve personal and interpersonal problems. - Minimize stress and conflict. - Balance internal needs and external demands.
Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction.	- Use peripheral devices to communicate with a computer. - Possess gross and fine motor abilities sufficient to safely and effectively handle computer equipment. - Physical abilities are sufficient to move and manipulate around equipment in limited spaces. - Be able to stand, sit, and walk when completing computer tasks.
Auditory Skills	Communicate with the instructor, employers, and colleagues.	- Discern directions in classroom, online, and lab environments. - Review videos in the classroom, online, and lab environment. - Discern instructions and responses that define problems or issues.
Visual Skills	Visual ability is sufficient for observation and assessment necessary in the classroom or work environment.	- Observe computer issues and possible problems. - Observe client responses (ie: change in tone, facial expression, body language). - Review documents (both printed and online).
Tactile Skills	Tactile skills are sufficient for observation and assessment necessary in the classroom or work environment.	- Inspect components for wear or failure. - Identify problems such as overheating.
Environmental	Adapt to changing environments.	- Practice standard safety precautions in the field. - Work in areas that may be close, crowded, and/or noisy. - Adapt to changes in class or work environment such as virtual or alternative schedules. - Remain calm in stressful situations.

Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Adapt rapidly to changing environments and/or stress. • Calmly receive feedback. • Demonstrate honesty and integrity beyond reproach. • Control emotions for the benefit of others.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the patient or student.

Computer Science

COS TECHNICAL STANDARDS

All students in the Associate in Computer Science degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Description	Examples

Critical Thinking/Problem Solving Skills	Ability is sufficient to use mathematical skills for solving problems in a variety of computer science contexts. Demonstrate ability to remember, understand, apply, analyze and evaluate information.	• Generate or apply various rules for combining or grouping elements in diverse ways. • Apply general rules to specific problems, producing logical answers. • Identify or detect known patterns (figures, objects, words or sounds) within distracting material. • Generate numerous ideas about a topic (prioritizing quantity rather than quality, correctness or creativity). • Synthesize information to create general rules or conclusions (including finding relationships among seemingly unrelated events). • Arrange items or actions in a specific order or pattern according to a designated rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations). • Select the appropriate mathematical methods or formulas to solve problems. • Perform basic arithmetic operations (addition, subtraction, multiplication or division) quickly and accurately. • Compare similarities and differences rapidly and accurately among sets of letters, numbers, objects, pictures or patterns, including comparing presented objects with remembered ones. • Recognize when something is wrong or likely to go wrong, without necessarily solving the problem. • Swiftly make sense of, combine and organize information into coherent patterns. • Imagine the appearance of an object after it has been moved or rearranged.
Interpersonal Skills	Ability to interact with others whether face-to-face or through electronic means with professionalism and respect for persons from diverse social, emotional, cultural and intellectual backgrounds.	• Respond to instructors and/or other students with respect for their viewpoints whether in a traditional, face-to-face classroom or online. • Function and contribute as part of a team. • Exhibit ethical behavior and exercise good judgment in keeping with [Texas State Technical College's Code of Student Conduct](#) as published in the [Student Handbook](#). • Negotiate interpersonal conflict.

Communication Skills	Abilities sufficient for interaction with others in verbal, nonverbal and written form.	- Listening to and understanding information and ideas conveyed through spoken words and sentences. - Verbally communicate information and ideas effectively. - Read and understand information and ideas presented in the text. - Effectively communicate information and ideas in writing. - Articulate words clearly for easy understanding by others.
Auditory Skills	Auditory abilities are sufficient for classroom or online needs.	- Distinguish and respond to sounds at a close range including but not limited to an instructor, other students in a classroom and audio recordings. - Concentrate on a single sound source amidst other distracting noises. - Determine the origin of a sound.
Visual Skills	Visual ability is sufficient for comprehending printed materials, images or videos projected on a screen.	- Tolerate working indoors in artificial light and the glare of a computer screen. - Read printed or electronic documents. - Perceive objects or movement in one's peripheral field while looking straight ahead.
Tactile Skills	Tactile ability is sufficient for written communication and handling of equipment.	Utilize instrumentation tools, technology and scientific equipment.
Mobility/Motor Skills	Physical abilities sufficient to function in a classroom or online setting while following the College's Code of Student Conduct so that the learning environment is not compromised.	Perform physical activities including but not limited to the manual dexterity sufficient to operate a computer, keyboard or other lab equipment.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	- Focus on a task over an extended period without distractions. - Switch between two or more activities or information sources (such as speech, sounds, touch or other sources) seamlessly. - Seek support and/or follow reporting procedures as needed for injuries, illness, Title IX concerns, etc. as outlined in the Student Handbook. - Solve personal and interpersonal problems. - Cope with your own emotions. - Cope with strong emotions in others.

Environmental	Possess the ability to tolerate environmental stressors.	• Know your location in relation to the environment or to know where other objects are in relation to you.
Behavioral	Possess sufficient emotional stability and self-regulation skills to assume personal responsibility and accountability for following the Code of Student Conduct and Code of Classroom Conduct as outlined in the Student Handbook.	• Maintain composure and integrity, while navigating changing environments, stressful classroom situations and professional disagreements. • Maintain focus on attention to detail, while balancing multiple responsibilities such as safety and quality.

Technical standards as stated here reflect performance abilities that are necessary for a student to successfully complete the requirements of the specified program. Students should verify their ability to perform these technical standards with or without accommodations. In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the student.

Texas State Technical College is invested in full compliance with the Americans with Disabilities Act (ADA). Any student who believes they may not be able to perform the functions listed may contact the Access and Learning Accommodations (adarequest@tstc.edu) office to discuss whether reasonable accommodations can be made without fundamental alteration to the requirements of the program.

Culinary Arts

CLN TECHNICAL STANDARDS

All students in the Culinary Arts program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem Solving Skills	Ability sufficient for the classroom, lab and work in industry situations.	• Adjust recipe amounts, analyze and calculate ingredient proportions and cooking times for quantity changes. • Respond effectively to kitchen emergencies based on training knowledge to make quick decisions under pressure, considering safety and operational concerns. • Plan, manage and produce food products according to time parameters indicated. • Practice and adhere to National Restaurant Association ServSafe sanitation standards.

Interpersonal Skills	Abilities are sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds. Ability to collaborate and effectively build a cohesive and efficient team.	• Cooperate effectively and professionally as a team with classmates during projects and kitchen labs. • Demonstrate collaboration, shared responsibilities and adapt to diverse roles in a classroom and kitchen lab environment. • Respond effectively to constructive feedback from peers, instructors and customers and implement feedback for continuous improvement. • Maintain a cooperative spirit in a challenging environment while working in a hot area with limited space. • Respect and care for customers whose appearance, condition, beliefs and values may conflict with your own. • Demonstrate sufficient emotional health to perform under stress, exercise good judgment and promptly complete all academic and work-based learning responsibilities.
Communication Skills	Abilities are sufficient for interaction with others in verbal and written form.	• Speak and write clearly and distinctly. • Provide or follow verbal directions from classmates or instructors. • Demonstrate engaged and active listening skills during class discussions, lectures and lab activities. • Maintain focus on the instructor or classmates during lectures, discussions and labs.
Coping Skills	Ability to maintain a state of harmony, ensuring balance and efficiency.	• Solve personal and interpersonal problems, effectively contribute ideas and work collectively to address challenges in the classroom or lab environment. • Maintain composure and effectively manage stress and conflict. • Demonstrate resilience during pressure, stay focused and organized.

Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction. Gross and fine motor abilities are sufficient to provide safe and effective culinary procedures.	• Coordination, dexterity (eye and hand coordination) and agility required to handle kitchen tools, utensils and equipment. • Perform kitchen functions while standing for long periods of time. • Move safely between workstations near other students and equipment. • Lift containers (bulk and prep) individually and in coordination with other students. • Lift supplies from the floor, pallet or table and place them on storage racks. • Remove supplies from storage racks above head at standard height. • Hold containers such as pots and bowls while mixing and blending ingredients in those containers. • Operate machinery and equipment safely and efficiently. • Safely use knives and other commercial cooking equipment. • Execute culinary techniques with accuracy, cooking methods, whisking, dicing and piping skills.
Auditory Skills	Auditory abilities are sufficient to work effectively and safely. Ability to accurately perceive, process and respond to sounds during a lab kitchen environment.	• Hear the instructor's voice in a noisy kitchen/lab environment to receive verbal instruction and communicate across kitchen stations. • Comprehend spoken instructions to ensure accurate execution of culinary tasks. • Hear and respond to alarms, timers signaling food preparation stages, equipment status or potential hazards. • Recognize auditory cues related to food preparation, such as sizzling, boiling or other sounds that indicate the progress and readiness of the cooking process.
Visual Skills	Visual ability is sufficient for observation and assessment necessary in the classroom, lab and industry situations.	• Read written instructions, ingredient labels, recipes and menu details. • Viewing of the instructor's demonstrations. • Visually assess and distinguish characteristics of various ingredients, including freshness, color, texture and quality. • Visually assess and analyze cooking preparation and cooking to ensure dishes are prepared with precision and according to standards. • Visually identify safety and sanitation practices in the kitchen. • Read temperature and pressure gauges. • Read safety labels and warnings such as specific Safety Data Sheets (SDS).

Tactile Skills	Tactile ability is sufficient for the assessment of food products.	• Taste, smell and feel products to determine quality and doneness. • Feel resistance and texture of different foods during chopping and slicing. • Employ hand-forming techniques to ensure uniform shapes and textures. • Tactile judgment to apply appropriate techniques for tenderizing meat, cut, thickness.
Environmental	Possess the ability to tolerate environmental stressors and function safely. Ability to tolerate and adapt to factors such as heat, noise and other conditions in a kitchen environment.	• Utilize proper lifting techniques and safely move pots, pans, stockpots and small equipment. • Lift and move bags and boxes of supplies weighing up to 50 pounds, ensuring safe and efficient transport. • Stand and move safely in kitchen and dining areas during food preparation and service for up to six hours. • Lift and transport trays with plated foods, china and small wares. • Serve and clear tables where guests are seated • Complete cleaning responsibilities requiring stooping, bending and climbing.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Adapt rapidly to changing environments and/or stress. • Taking responsibility for errors in the kitchen contributes to accountability and continuous improvement. • Exercise patience when learning new culinary techniques and calmly receive feedback and respond with an open mindset. • Demonstrate honesty and integrity beyond reproach. • Collaborate and interact respectfully with classmates and instructors. • Demonstrate professionalism with classmates and instructors. • Demonstrate empathy and consideration to classmates, recognizing the impact of actions and words.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless to do so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the student.

Cybersecurity

CYS TECHNICAL STANDARDS

All students in the Cybersecurity program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Make reasoned judgments that are logical and well-thought-out.	• Apply detailed analytical process(es) to identify, predict, and troubleshoot technical issues • Evaluate and implement practical/functional solutions in response to noted issues • Apply mathematical methods or formulas to solve problems • Gather and synthesize relevant data and evidence from reliable sources (reports, logs, alerts, etc.) to make informed strategic decisions and/or develop proactive strategies or solutions
Interpersonal Skills	Interact with individuals and groups from a variety of social, emotional, cultural, and intellectual backgrounds with different IT skill sets.	• Actively contribute and participate in collaborative/group activities with shared responsibility and accountability • Practice active listening and provide constructive feedback to improve positive group workflow and productivity • Foster an open and positive work environment through trust, empathy, and integrity.
Communication Skills	Communicate (both written and verbal) with peers, faculty, colleagues, and members of the community.	• Communicate clearly and effectively with others (technical/non-technical), both verbally and in writing (including technical reports/documentation, presentations, peer collaboration/discussions)
Coping Skills	Maintain a state of harmony.	• Manage time effectively to minimize stress and conflict • Develop and nurture strong relationships, friendships and connections with peers and instructors
Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction.	• Use peripheral devices to communicate with a computer. • Possess gross and fine motor abilities sufficient to safely and effectively operate computer and network equipment, • Make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate or assemble objects, to include removal and replacement of computer components. • Enter text or data into a computer or network equipment by means of a traditional keyboard.
Auditory Skills	Communicate with the instructor, employers, and colleagues.	• Focus on a single source of sound in the presence of other distracting sounds (computer/ network equipment) • Discern directions in classroom, online, and lab environments. • Review videos in the classroom, online, and lab environment. • Discern instructions and responses that define problems or issues

Visual Skills	Visual ability is sufficient for observation and assessment necessary in the classroom or work environment.	• Observe and inspect physical condition of computer components and results of diagnostic tools • Monitor activity on computer display/devices for signs of computer/network issues • View /Manipulate and enter data on computer screen displays, Images, productivity tools (Data visualization - color code or intensity on computer screen displays, images, device status lights) • Observe others responses while communicating information (ie: change in tone, facial expression, body language) to affirm and reinforce proper communication
Tactile Skills	Tactile skills are sufficient for observation and assessment necessary in the classroom or work environment.	• Inspect computer components and/or network equipment for wear or failure
Environmental	Adapt to changing environments.	• Adopt a mindset of a lifelong learner to help keep up with changing technology (expect to continually learn and be open to the latest trends, new technologies, and evolving security challenges) • Manage unexpected circumstances by being flexible and optimistic, requesting opportunities to work on tasks that may be a new learning experience or offer new responsibilities
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Identify the source of unwanted emotional response and their triggers • Manage emotional/behavioral responses by identifying healthy strategies/approaches for handling or reducing exposure to future stress inducing situations

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the patient or student.

Dental Hygiene

DHY TECHNICAL STANDARDS

The Dental Hygiene profession, and industry standards, requires a variety of essential job functions in the clinical environment. To meet those essential job functions, all students in the TSTC Dental Hygiene Program are expected to meet the required technical standards essential for the successful completion of all phases of the program listed in the table below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples

Critical Thinking/Problem-Solving Skills	Ability is sufficient for clinical judgment. Reasoning skills sufficient to perform deductive/inductive thinking for patient care decisions.	• Assimilate knowledge from lecture, laboratory and clinical arenas. • Evaluate client or instrument responses, synthesize data and draw sound conclusions • Collect data, prioritize needs and anticipate reactions. • Identify cause-effect relationships in clinical situations. • Transfer knowledge from one situation to another. • Develop a dental hygiene care plan.
Interpersonal Skills	Abilities are sufficient to interact with individuals, families and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Establish rapport with clients, instructors, staff, colleagues and groups. • Respect and care for clients whose appearance, condition, beliefs and values may conflict with your own. • Deliver patient care regardless of the client's race, ethnicity, age, gender, religion, sexual orientation or diagnosis. • Establish and maintain therapeutic boundaries. • Exhibit ethical behavior and exercise good judgment.
Communication Skills	Abilities are sufficient for interaction with others in verbal and written form.	• Document and interpret actions and client responses in a clear, professional and timely manner. • Convey information to clients and others as necessary to teach and direct in an accurate, effective and timely manner. • Recognize and report critical client information to other caregivers. • Read, write, comprehend and speak the English language to facilitate communication with instructors, clients and their family members and other health care professionals.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	• Adapt rapidly to changing environments and/or stress. • Solve personal and interpersonal problems. • Balance internal needs and external demands.

Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction. Gross and fine motor abilities are sufficient to provide safe and effective dental hygiene skills.	• Move around clinical operatories, dark rooms, sterilization rooms and other treatment areas. • Position chairside in close proximity to the patient. • Administer CPR and BLS procedures. • Reach radiographic equipment which is approximately 5-6 feet off the floor. • Transfer patients from wheelchairs to dental chairs and back. • Move, calibrate and use equipment, dental materials and supplies, including sharp instruments during operative procedures. • Use ancillary aids chairside, including medical manikins, small equipment, etc. • Hand/eye coordination.
Auditory Skills	Auditory abilities are sufficient to monitor and assess health needs.	• Hears patients. • Hear cries for help/distress. • Hears the sound of instruments being properly utilized. • Hears the sound of slow/high-speed handpiece, ultrasonic instruments, etc. • Monitor vital signs and hears the heart beats through the use of a stethoscope.
Visual Skills	Visual ability sufficient for observation and assessment necessary in dental hygiene procedures.	• Observe client responses, such as skin color and facial expression. • Monitor vital signs. • Notes gingival description and pocket depths (read probe) – healthy vs. disease state, including color changes. • Evaluates radiographs for technical quality, including density, contrast and distortion. • Able to read records. • Notes color changes in dental materials which indicates reactions occurring.
Tactile Skills	Tactile ability is sufficient for physical assessment.	• Perform palpation techniques (EO/IO exam), functions of a dental hygiene exam, and/or those related to therapeutic intervention (e.g. scaling, root planing and deposit assessment).
Olfactory Skills	Olfactory ability sufficient to detect significant environmental and client odors.	• Detect odors from clients.

Environmental	Possess the ability to tolerate environmental stressors.	• Safely work with potentially harmful chemicals used in health care settings. • Practice Standard Precautions in the dental setting. • Work in areas that are close, crowded and/or noisy. • Anticipate exposure to communicable diseases, body fluids and toxic substances.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Adapt rapidly to changing environments and/or stress. • Calmly receive feedback. • Demonstrate honesty and integrity beyond reproach.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the client or student. For detailed information or to request accommodations, visit the Support Services Office located at the EK Building on the Harlingen campus or contact their office at (956) 364-4520.

Additional Admission Requirements for the Dental Hygiene Program:

• Driver's license.
• Current CPR card.
• Current Program Required Vaccinations.
• Drug screening before beginning the program in the Fall semester and annually every Fall semester.
• Background check before beginning the program in the Fall semester and annually every Fall semester.
• Malpractice, Health and Accident, and Needlestick iInsurances upon beginning the program in the Fall semester and annually every Fall semester.

Diesel Equipment Technology

DET TECHNICAL STANDARDS

Diesel Equipment Technology programs have instituted a set of technical standards designed to ascertain that students possess the requisite skills and competencies necessary for effective participation in academic, laboratory and automotive service facility settings. These standards are crucial for the comprehensive and successful completion of all aspects of the program and are reflective of the demands and benchmarks prevalent in the industry.

It should be noted, however, that meeting these technical standards does not ensure post-graduation employment in the field. Furthermore, fulfilling the program's technical criteria does not automatically qualify a student for certification examinations, nor does it guarantee successful completion of the program. These standards serve as a foundational benchmark, and students must actively engage and excel in all program components to achieve professional readiness and competency.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem Solving Skills	Diagnosing Complex Issues Developing Effective Solutions Prioritizing Tasks Ensuring Safety	• Needs to systematically analyze symptoms, understand the interplay of different components and identify the root cause of a problem. • Must devise practical and efficient solutions. • Prioritizing these tasks based on urgency, complexity and available resources. • Identify potential safety hazards related to diesel engines and their repair.

Interpersonal Skills	Effective Communication Team Collaboration Customer Service Conflict Resolution	• Clear and effective communication helps ensure that information is conveyed accurately and understandably. • Good interpersonal skills enable a technician to work effectively with colleagues. • The ability to listen actively, empathize and respond appropriately to customer concerns is essential. • Can help resolve conflicts constructively, maintaining a positive work atmosphere.
Communication Skills	Explaining Technical Information Collaboration with Colleagues Customer Service Documenting Work	• Need to explain complex technical details about diesel engines and systems to customers who may not have technical knowledge. • Communication is crucial when working in a team. • Understanding the customer's needs, and setting clear expectations. • Need to document their work accurately for records, future reference or to communicate issues and actions taken to others.
Coping Skills	Stress Management Adapting to Rapid Change Problem Solving Under Pressure Dealing with Failure or Mistakes Handling Customer Complaints	• The role of a diesel technician can be high-pressure, especially when dealing with complex repairs or tight deadlines. • Allow technicians to adapt to new technologies and changes without becoming overwhelmed. • Technicians often face challenging problems that need immediate solutions. Coping skills help in maintaining composure and clarity of thought during these situations. • Help technicians deal with setbacks constructively, learning from mistakes rather than being demoralized by them. • Are necessary to handle dissatisfied or difficult customer interactions professionally and calmly.

Mobility/Motor Skills	Manual Dexterity Working in Tight Spaces Coordination and Balance Using Specialized Equipment Safety in the Workplace Physical Strength and Stamina	• Fine motor skills are necessary for tasks like assembling and disassembling components, using hand tools and making precise adjustments. • Technicians frequently need to maneuver in confined spaces within engine compartments or under vehicles. • Tasks may involve working in awkward positions or standing for long periods. • Exert yourself physically over long periods of time without getting winded or out of breath. • Operating specialized diagnostic and repair equipment often requires good hand-eye coordination and fine motor control. • Proper mobility and motor skills are essential to adhere to safety protocols, especially when handling heavy equipment or working in potentially hazardous environments. • Pinch/pick or otherwise work with fingers. • The job can be physically demanding, requiring lifting heavy parts and tools.
Auditory Skills	Client Interaction Quality Control Detecting Mechanical Issues Safety in the Workplace Environmental Awareness	• Descriptions of problems often include sounds their vehicles are making. • Needs to confirm that there are no unusual noises after repairs. • Changes in engine sounds, such as knocks, rattles or hums. • The ability to hear alarms, warning shouts or noises from machinery is essential for maintaining safety. • Being aware of the surrounding environment through sound helps in navigating busy or cluttered workshop spaces.

Visual Skills	Diagnosing Issues Reading and Interpreting Diagrams Detecting Subtle Changes Safety Quality Control	• A significant part of diagnosing problems in diesel engines involves visual inspection. Technicians need to identify signs of wear, damage or malfunction in components. • Technicians frequently use manuals and diagrams, which require the ability to understand and interpret complex visual information. • Spotting subtle changes in parts or fluids, like discoloration or small leaks, can be crucial in early problem identification. • Good vision is essential for safety in the workshop, allowing technicians to notice potential hazards, read safety labels and operate machinery safely. • Visual inspection is a key aspect of quality control, ensuring that repairs are completed correctly and to standard.
Tactile Skills	Handling Tools and Equipment Assembling and Disassembling Parts Evaluating Wear and Tear Detecting Temperature Changes	• Tactile skills are crucial for manipulating tools and equipment accurately, especially in tight or hard-to-reach spaces. • Tactile feedback is important for assembling and disassembling complex parts, where precision and careful handling are key. • By feeling for roughness, irregularities or wear in parts, technicians can assess their condition and decide whether replacement or repair is needed. • The ability to feel for excessive heat in parts can be an indicator of malfunction or the need for maintenance.
Olfactory Skills	Identifying Fluid Leaks Detecting Burning or Overheating Identifying Electrical Issues Chemical Safety	• Different vehicle fluids (like oil, coolant, transmission fluid) have distinct smells. Recognizing these can help quickly identify leaks and their sources. • The smell of burning, whether from overheated engines, brakes or electrical components, can be an early warning sign of malfunction or potential hazards. • The distinct smell of burning insulation can indicate electrical issues, which are important to address promptly to avoid further damage or safety risks. • Being able to detect the presence of harmful chemicals or solvents through smell can help in taking quick action to ensure proper ventilation and safety.

Environmental	Compliance with Environmental Regulations Proper Waste Management Use of Sustainable Practices Health and Safety	- Diesel technicians must be aware of and comply with environmental regulations related to vehicle emissions, disposal of hazardous materials, and other industry-specific environmental standards. - Handling and disposing of automotive fluids, batteries, and other potentially hazardous materials properly is essential to prevent environmental contamination. - Awareness of sustainable practices, such as recycling parts or using environmentally friendly products, can help reduce the overall environmental impact of their work. - Environmental awareness includes understanding the health and safety impacts of various chemicals and practices, both for personal safety and the well-being of others.
Emotional/Behavioral	Stress Management Professionalism Adaptability Customer Service Teamwork and Collaboration	- The job can be high-pressure and demanding, with tight deadlines and complex problems. Being able to manage stress effectively is crucial to maintain focus and efficiency. - Maintaining a professional demeanor, even in challenging situations, is important for workplace harmony and customer satisfaction. - Technicians often encounter unforeseen challenges and changes. The ability to adapt emotionally and behaviorally to these situations is key to success. - Handling customer interactions with empathy, patience, and understanding is essential, especially when dealing with frustrated or dissatisfied clients. - Working effectively with others requires good interpersonal skills, emotional intelligence and the ability to navigate different personalities and team dynamics.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the vehicle, equipment or student.

Digital Media Design

DMD TECHNICAL STANDARDS

All students in the Digital Media Design program are expected to meet certain technical standards which are essential for

the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Students should be able to make reasoned judgments that are logical and well-thought-out when receiving information for a project and then identify an approach to solve the problem.	- Receive, interpret, and correctly complete work (i.e., reading, research, writing, and presentations). - Evaluate case studies and problems, and identify appropriate approaches to solve the problem. - Identify cause and effect relationships in IT situations. - Interpret user requirements to design a workable solution for the user. - Develop practical solutions in a simulated and live environment. - Produce original, unusual, and/or clever ideas about a given topic or situation. - Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). - Apply general rules to specific problems to produce answers that make sense. - Imagine how something will look after it is moved around or when its parts are moved or rearranged. - 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). - Quickly make sense of, combine, and organize information into meaningful patterns. - 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. - Determine when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem. - Remember information such as words, numbers, pictures, and procedures. - Generate or use different sets of rules for combining or grouping things in different ways. - Identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
Interpersonal Skills	Students should be able to interact with individuals and groups from a variety of social, emotional, cultural, and intellectual backgrounds with different IT skills sets.	- Propose and present ideas to achieve buy-in, consensus, and make decisions. - Follow the directions of instructors, fellow students, and potential/actual clients. - Establish rapport with clients and colleagues. - Complete group projects that require interaction with peers, including online interaction and the interpretation of written communication. - Accept feedback on projects and adapt to changing project scope. - Know how to ask for help when needed.

Communication Skills	Students should be able to communicate both written and verbally with peers, faculty, colleagues, and members of the community.	• Provide and follow directions from other members of the class or instructors. • Present ideas and create presentations to convey those ideas. • Demonstrate active listening skills. • Communicate information and ideas in writing so others will understand. • Read and understand information and ideas presented in writing. • Present information to panels of instructors and advisory boards, in both verbal and written form. • Receive, organize, prioritize, and transmit information. • Document problems, and procedures (verbally, written, and electronically). • Adapt communication to individuals' abilities to understand. • Identify and understand the speech of another person.
Coping Skills	Students should be able to concentrate on a task over a period of time without being distracted and minimize stress and conflict.	• Solve personal and interpersonal problems. • Minimize stress and conflict. • Balance internal needs and external demands.
Mobility/Motor Skills	Students should be able to possess gross and fine motor abilities sufficient to safely and effectively handle computer equipment, cameras, and drawing tools.	• Use peripheral devices to communicate with a computer. • Possess gross and fine motor abilities sufficient to safely and effectively handle computer equipment. • Physical abilities are sufficient to move and manipulate around equipment in limited spaces. • Be able to stand, sit, and walk when completing computer tasks.
Auditory Skills	Students should be able to understand audible directions in an online lab or by reviewing instructional videos. Students should be able to focus on a single source of sound in the presence of other distracting sounds.	• Discern directions in classroom, online, and lab environments. • Review videos in the classroom, online, and lab environment. • Discern instructions and responses that define problems or issues. • Speak or gesture clearly in order for others to understand. • Focus on a single source of sound in the presence of other distracting sounds. • Detect differences between sounds that vary in pitch and loudness. • Detect the direction from which a sound originated.
Visual Skills	Students should be able to have sufficient visual ability for observation and assessment necessary in the classroom or work environment.	• Observe computer issues and possible problems. • Observe client responses (i.e., change in tone, facial expression, body language). • Review documents (both printed and online). • Determine which of several objects is closer or farther away from you, or to judge the distance between you and an object. • See details at a distance. • See objects in the presence of glare or bright lighting. • See details at close range (within a few feet of the observer). • See objects or movement of objects to one's side when the eyes are looking ahead.
Tactile Skills	Students should be able to have the tactile skills necessary for observation and assessment in a classroom or work environment.	• Inspect components for wear or failure. • Identify problems such as overheating. • Match or detect differences between colors, including shades of color and brightness.

Environmental	Students should be able to adapt to changes in a class or work environment and remain calm in stressful situations.	• Shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
Emotional/Behavioral	Students should be able to possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for their actions.	• Exercise good judgment. • Adapt to rapidly to changing environments and/or stress. • Calmly receive feedback. • Demonstrate honesty and integrity beyond reproach. • Control emotions for the benefit of others.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the patient or student.

Drafting & Design

ACD/ADE/AGD TECHNICAL STANDARDS

All students in the Drafting and Design Technology program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem Solving Skills	Ability is sufficient for classroom and lab work.	• Apply mathematical and verbal/written/reading skills to interpret, propose solutions and communicate design intent. • Interpret and apply written standards and codes. • Analyze various options for completing a project to maximize efficiency. • Use a scientific calculator.
Interpersonal Skills	Abilities are sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Able to work as part of a team and act professionally and treat others with respect while staying focused on one or more tasks.
Communication Skills	Abilities are sufficient for interaction with others in verbal and written form.	• Ask questions to quickly obtain information related to technical projects. • Receive and interpret information from instructors. • Communicate effectively with others in verbal and written forms.
Coping Skills	Abilities are sufficient to be productive in a classroom, lab or industry situation.	• Ability to stay calm and focused working on projects with hard deadlines. • Be able to work individually or in a group. • Must be able to adapt to different teaching modes, lab settings or classroom.

Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction.	• Move from workstation to workstation near other students, instructors and equipment. • Manipulate hand and digital drafting equipment.
Auditory Skills	Auditory abilities are sufficient to work effectively and safely.	• Receive and respond to instructors and others. • Place and receive telephone or video calls.
Visual Skills	Visual ability is sufficient for observation and assessment necessary in the classroom, lab and other locations on the campus.	• Visually interpret information from drawings, diagrams and sketches both in printed and digital form.
Tactile Skills	Tactile skills adequate for work in a classroom or lab environment.	• Manipulate drafting instrumentation, tools and technology.
Environmental	Must be able to function safely under varying environmental factors.	• Navigate both indoor and outdoor environments, including construction sites to compare classwork with building in progress.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Demonstrate flexibility, honesty, empathy, patience and cooperative behaviors. • Display high levels of personal responsibility, accountability and development. • Remain calm and focused in a high-stress, deadline-driven environment. • Adapt to changing environments and/or stress. • Work independently with minimal supervision. • Maintain a professional appearance and actions. • Exercise independent judgment to effectively solve problems and make decisions.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the patient or student.

Education and Training

EDT TECHNICAL STANDARDS

Every student in the Education & Training program are expected to meet specific technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation or graduates' eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standard	Examples

Critical Thinking/Problem Solving Skills	Abilities are sufficient for the classroom, lab and work in industry situations that require the organization of time, and materials, prioritization of tasks, multitasking and adapting to changing situations.	- Synthesize students' observations with known child development and plan lessons accordingly. - Respond to student behaviors in a way that demonstrates knowledge of child development and developmentally appropriate practices. - Be able to demonstrate the ability to think logically about educational issues. - Demonstrate the ability to multi-task and adapt to and display flexibility in changing situations. - Perform the above skills independently.
Interpersonal Skills	Abilities are sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds from age groups.	- Work as a team in college classes for group work. - Work as a team in educational settings. - Maintain a cooperative spirit when working with classmates or professionals in education. - Demonstrate respect for those whose appearance, condition, beliefs and values may conflict with your own. - Demonstrate sufficient emotional health to perform under stress, exercise good judgment and promptly complete all academic work and work-based learning responsibilities.
Communication Skills	Abilities are sufficient for verbal and non-verbal communication abilities with children, families or other educational environments.	- Have adequate verbal and written communication skills with other adults (colleagues, parents) and students of differing ages. - Understand and respond to oral communications and directions. - Take initiative in speaking with parents to make them and the student feel welcome. - Work with families and children as much as you can during arrival and departure to provide a smooth transition. - Be able to read, write, understand and respond to written instructions, communications and materials.
Coping Skills	Abilities are sufficient for working under stress and maintaining composure.	- Solves personal and interpersonal problems. - Demonstrates ability to resolve conflicts and deal with upset clients (families). - Ability to remain cool, calm and collected when working with students' challenging behaviors.
Mobility/Motor Skills	Abilities are sufficient for motor ability (balance, coordination, speed and agility) and strength to move independently throughout a classroom setting, to move equipment/students and to ensure safe and effective environments.	- Have the mobility, strength and dexterity to be able to lift a child weighing up to 50 pounds. - Ability to be at and interact at each student's level and retrieve who wander and/or run from the group. - Be able to sit down on the floor and get up again in a timely manner. - Be able to run and play with students' in all environments. - Be able to maneuver safely around active moving students in all environments.

Auditory Skills	Sufficient auditory ability to monitor and assess the needs of the students.	- Have adequate hearing in order to supervise students from across a 20 ft. room. - Demonstrate required sensory skills in order to observe both individuals and groups of students. Tasks include monitoring safety, interactions and meeting the needs of students.
Visual Skills	Sufficient visual acuity/ability to monitor and assess the needs of students.	- Have an adequate vision in order to supervise students from across a 20 ft. room. - Demonstrate required sensory skills in order to observe an individual student as well as a group of students for monitoring safety, social interaction, non-verbal cues or signs of physical abuse or neglect.
Tactile Skills	Sufficient tactile ability to monitor and assess the needs of students.	Determining the temperature of formula on the inside of the wrist prior to feeding an infant (early childhood specific).
Environmental/Physical Strength and Stamina	Abilities are sufficient to work in an active environment and tolerate environmental stressors and function safely.	- Have the mobility, strength and dexterity to be able to move or direct a child's movement when necessary. - Have the ability to interact at each child's level and retrieve children who wander throughout the day. - Be able to sit down on the floor or ground and get up again quickly repeatedly. - Be able to change a diaper repeatedly (early childhood and/or special needs specific). - Ability to physically interact with students during play time.

Emotional, Interpersonal & Behavioral	Sufficient behavior and social abilities to interact and work collaboratively with individuals, groups and families while maintaining composure in stressful situations, making sound decisions and assuming responsibility/accountability for actions.	- Be able to stand or sit in front of groups of students and present class materials. - Be able to interact with children and families through eye contact and verbal communication and do so according to general social norms; including being able to adjust interactions based on the child or family's cultural/social needs. - Be able to multi-task: stay in control and adequately supervise a group of students who are performing different activities. - Should have skills in order to meet the needs of small and/or large groups of students while also being aware of the other students in the room and helping those with special needs or problems at any given time. - Communicate with parents and students to help make them feel welcome. Interact with parents and students during arrival and departure to provide a smooth transition. - Be willing to receive direction, suggestions and feedback from co-workers, supervisors and families in a manner that is calm and professional. - Adapt to rapidly changing environments and/or stress. - Refrain from the use and abuse of any substance that would impair the ability to attend work consistently and work with students in a reliable manner. - Have the ability to attend work consistently and work with students in a reliable manner to ensure the safety of, observation of and assessment of all situations involving a student and a group of students and co-workers. - Adapt to changing duties and needs of the work environment, including retaining new information related to the program, the profession and the needs of each student. - Exercise independent judgment to effectively solve problems and make decisions.

Technical standards as stated here reflect performance abilities that are necessary for a student to successfully complete the requirements of the specified program. Students should verify their ability to perform these technical standards with or without accommodations. In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the student.

Texas State Technical College is invested in full compliance with the Americans with Disabilities Act (ADA). Any student who believes they may not be able to perform the functions listed may contact the Access and Learning Accommodations (adarequest@tstc.edu) office to discuss whether reasonable accommodations can be made without fundamental alteration to the requirements of the program.

Electrical Lineworker & Management Technology

ELW TECHNICAL STANDARDS

All students in the Electrical Lineworker program are expected to meet certain technical standards that are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify

the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition	Examples of Necessary Activities
Critical Thinking/Problem Solving	Ability is sufficient to complete classroom and lab work with industrial equipment. Ability is sufficient to objectively analyze information, directions, and instructions, make correct decisions, and draw reasonable conclusions that produce acceptable outcomes.	• Utilize engineering theory and practices to logically work through technical problems. • Utilize computers, with minimal assistance, to obtain technical information.
Interpersonal Skills	Abilities are sufficient to interact with individuals and groups from a variety of social, emotional, cultural, and intellectual backgrounds.	• Be able to work effectively independently or in a group. • Stay focused on the current task. • Demonstrate time management skills. • Communicate information with accuracy and professionalism.
Communication Skills	Sufficient ability to interact effectively and professionally with others via the English language using non-verbal, verbal, and written forms of communication. Follow instructions effectively when interacting with faculty, staff, and peers using written, verbal, and digital means.	• Speak and write accurately, clearly, and distinctly. • Communicate effectively with others in verbal and written forms. • Give and follow verbal directions or follow verbal directions from other members of the class or instructors. • Read and understand technical writing, policies, and standard operating procedures.
Coping Skills	Abilities are sufficient to effectively manage stress produced by work, environmental, and social situations and to react productively in a classroom or lab with industrial equipment.	• Solves personal and interpersonal problems. • Minimizes stress and conflict. • Balances internal needs and external demands. • Recognize personal limitations and request assistance as appropriate.

Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction. Must possess the ability to lift, stand, stretch, and maneuver to any position as required by an industrial situation.	- Move safely near other students, instructors, and equipment. - Lift items up to 100 lbs. individually or in coordination with others. - Frequently lift 50 lbs individually. - Properly wear appropriate personal protective equipment (ex. safety glasses, hearing protection, gloves, fall protection, face shield, etc.) without assistance. - Ability to climb - Move freely and quickly around the vehicle bucket and line while manipulating equipment. - Work quickly and accurately. - Independently use body members for grip, speed, and precision work. - Start, stop, control, and adjust the progress of machines, equipment, and material within tight crowded places. - Position heavy items with assistance of lifting devices. - Ability to perform/type data entry via a control panel or keyboard.
Auditory Skills	Sufficient auditory ability to quickly send and receive information and interpret verbal orders and instructions from other people in industrial environments safely and efficiently.	- Receive and respond to verbal commands in a noisy environment. - Respond to alarms, bells, and other safety alert systems. - Respond to calls for help.
Visual Skills	Visual ability is sufficient for observation, assessment, and safe performance in the classroom, lab, and industrial environments.	- Recognize hazards, and interpret indicators and measurements from industrial equipment. - Read safety labels and warnings such as specific Safety Data Sheets (SDS). - Work with small electronic components used in labs. - Inspect power lines, and tools.
Tactile Skills	Tactile skills adequate for work in a class, lab, or industrial environment.	- Operate equipment safely by turning on and off proper switches, buttons, and/or valves. - Utilize the internet to locate information and learning management systems.
Environmental	Must be able to function under varying environmental factors and detect and respond safely to changes in the current environment or the presence of a hazardous situation.	Complete cleaning responsibilities requiring stooping or bending.

Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	- Receive and respond professionally to verbal and written communication. - Adapt rapidly to changing environments and/or stress. - Attentiveness to the task at hand in hazardous situations. - Demonstrate honesty, integrity, respect, patience, and cooperative behaviors. - Maintain personal hygiene to a satisfactory standard.
Weight Restriction	This program contains a weight restriction of 300 pounds.	The purpose of this restriction is to ensure all weight rated equipment is used in an appropriate and safe manner within maximum allowed weight loading to include worker and associated gear.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the client or student.

Electrical Power & Controls

EPC TECHNICAL STANDARDS

All students in the Electrical Power and Controls program are expected to meet certain technical standards that are essential for the successful completion of all phases of the program and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking / Problem Solving Skills	Abilities sufficient to complete classroom and lab coursework that are reflective of real-world situations found in industry.	- Ability to apply logic and technical knowledge to current situations and problems. - Ability to determine appropriate tools and materials required to complete the task. - Ability to diagnose problems by using a Digital Multimeter (DMM) or tools designed for specific applications. - Ability to utilize theory and trade practices to maintain the functionality of the equipment.
Interpersonal Skills	Abilities sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds.	- Ability to work independently or in a group setting while maintaining focus on the current task. - Demonstrate time management skills. - Communicate information with accuracy and respect.

Communication Skills	Abilities sufficient to effectively communicate with others, both verbally and in writing. Abilities sufficient for writing, reading and comprehending directions or instructions in the class or lab.	• Ability to read schematics, wiring diagrams, operator/service manual and comprehend the information. • Ability to complete course lab assignments and explain corrective actions in written and verbal formats. • Ability to comprehend/follow written and verbal instructions.
Coping Skills	Abilities sufficient to function in highly stressful and rapidly changing situations. Abilities are sufficient to be productive in a classroom or lab environment.	• Ability to meet deadlines. • Ability to deal with critiques/criticism. • Ability to maintain composure under stressful situations. • Ability to maintain professionalism at all times.
Mobility/Motor Skills	Must possess the ability to lift, stand, stretch, squat and crawl or contort to any position as required by the repair situation. All positions listed above will be encountered in the class, lab or a work-based learning setting on a consistent basis.	• Ability to lift a minimum of 50 lbs. to chest level from the floor level. • Ability to work on stationary equipment that requires standing, reaching, bending and potentially prone positions for extended periods of time. • Ability to move about the work area in various outside working conditions. • Ability to work in confining or tight spaces. • Ability to operate hand and/or power tools continually or for extended periods of time.
Auditory Skills	Auditory abilities are sufficient to work safely in an industry environment, class or lab.	• Ability to respond to audible alarms, bells, buzzers, warning sirens and other safety alert systems. • Ability to detect unusual sounds being emitted from motors, transformers, drives and motor control systems. • Ability to hear verbal instructions, because line of sight is not always possible.
Visual Skills	Visual skills adequate to safely work in a class or lab with industrial equipment.	• Ability to interpret information from diagrams, labs and test equipment. • Ability to see in low or poor lighting conditions. • Ability to perceive different depths and dimensions. • Ability to distinguish individual colors.
Tactile Skills	Tactile skills adequate for work in a class or lab with industrial equipment.	• Ability to operate equipment safely by turning on and off switches, pressing buttons. • Ability to determine hot or cold temperatures by the sense of touch.

Environmental Awareness	Abilities sufficient to maneuver safely in an industrial setting. Abilities sufficient to function safely under varying environmental factors.	• Ability to work in an environment containing hazards that may include exposure to live electrical components, sharp surfaces, pinch points, moving equipment, stored energy apparatus, trip hazards and uneven surfaces. • Ability to maintain focus and productivity in an environment containing hazards and distractions. • Ability to work inside and outside under variable temperature, humidity and weather conditions.
Emotional/Behavioral	Emotional stability sufficient to maintain composure and professionalism in stressful situations and assume responsibility/accountability for actions.	• Demonstrate flexibility to calmly change course while addressing a technical problem. • Demonstrate ability to follow the directions of an instructor, supervisor or lead technician. • Demonstrate professionalism, integrity and honesty. • Demonstrate ability to manage stress and other factors while troubleshooting technical problems both individually and as part of a group.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the client or student.

Electromechanical Technology

ETT TECHNICAL STANDARDS

All students in the Electromechanical Technology degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability is sufficient to use basic computer and word processing skills. Demonstrate ability to remember, understand, apply, analyze and evaluate information.	• Be able create documents using Office Tools. • Access information using the internet and in Canvas. • Utilize and apply information gathered from printed and electronic resources. • Process information from multiple sources. • Collect, examine and interpret technical data. • Use logical approach to troubleshooting processes.

Interpersonal/Communication Skills	Ability to work and communicate with others whether face-to-face or through electronic means with professionalism and respect for persons from diverse social, emotional, cultural and intellectual backgrounds.	- Respond with constructive feedback to instructors and/or other students. - Function and contribute as part of a team. - Mediate different point of views to determine the best solution.
Mobility/Motor Skills	Safely perform physical activities in a classroom and laboratory setting.	- Move around and work in a classroom setting. - Perform physical activities including but not limited to maintenance, troubleshooting, repair and installation of equipment. - Capable of wearing the appropriate personal protective equipment (PPE) for the required task.
Physical Senses Skills	The ability to use auditory, visual, tactile and olfactory senses to successfully perform the tasks of a technical student.	- Distinguish and respond to sounds of equipment, instructor commands and communication from classmates. - Distinguish shapes, colors, safety symbols and instructions. - Read technical manuals. - Use depth perception and peripheral vision. - Utilize tools, meters and control equipment with appropriate manual dexterity. - Differentiate between the different odors from chemical, malfunctioning equipment and hazards.
Environmental	Possess the ability to tolerate environmental stressors.	- Tolerate variable indoor/outdoor temperatures. - Safely work with potentially hazardous materials. - Work in areas that are close, crowded and/or noisy. - Ability to walk and stand for extended periods of time.
Emotional/Behavioral	Possess emotional stability sufficient to assume responsibility/accountability for actions and maintain composure in stressful situations.	- Maintain composure and integrity, while navigating changing environments, stressful engineering decisions, and professional disagreements. - Maintain focus on attention to detail, while balancing multiple responsibilities such as safety and quality.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the patient or student.

Emergency Medical Services (EMS)

EMS TECHNICAL STANDARDS

Emergency Medical Services have established technical standards to ensure that students have the abilities required to function in the classroom, lab and clinical environment. These standards are essential for the successful completion of all phases of the program which reflect industry requirements and standards.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability to make fast and appropriate decisions in high stress situations. Ability to remain calm and intervene in various tense and stressful situations. Reasoning skills sufficient to perform deductive/inductive thinking for prehospital decisions.	- Assess scene safety and hazards that may occur. - Determine and prioritize the severity of an injury or illness. - Identify cause-effect relationships in clinical situations. - Transfer knowledge from one situation to another.
Interpersonal Skills	Abilities are sufficient to interact with individuals, families and groups from a variety of social, emotional, cultural and intellectual backgrounds.	- Establish rapport with patients, instructors, staff, colleagues and groups. - Respect and care for patients whose appearance, condition, beliefs and values may conflict with your own. - Establish and maintain therapeutic boundaries. - Exhibit ethical behavior and exercise good judgment.
Communication Skills	Abilities are sufficient for interaction with others in verbal and written form. Ability to communicate over a two-way radio. Ability to complete computer-based written patient care reports.	- Document and interpret actions and patient responses in a clear, professional and timely manner. - Ask questions to quickly obtain information related to the emergency. - Receive and interpret information from patients, other first responders and bystanders. - Complete a computer-based patient care report in a timely manner.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	- Adapt rapidly to changing environments and/or stress. - Recognize personal limitations.
Mobility/Motor Skills	Gross and fine motor abilities are sufficient to provide safe and effective emergency medical care in the clinical setting.	- Move around in work and treatment areas. - Administer cardiopulmonary resuscitation. - Stand and/or walk up to 12 hours per day with or without breaks. - Assist in lifting patients. - Pinch/pick or otherwise work with fingers. - Ability to enter and exit an ambulance without assistance.

Auditory Skills	Auditory abilities are sufficient to monitor and assess health needs. Ability to discern personal danger at emergency scenes. Ability to hear requests for additional aid. Ability to hear other people in a loud environment.	• Hear internal body sounds with the use of a stethoscope. • Hear various signals from medical equipment, such as alarms, dangers and warnings. • Hear and respond to instructors, preceptors and patients.
Visual Skills	Sufficient visual acuity, corrected or not, for safe performance in clinical and lab settings. Ability to visualize injuries and obvious life threats.	• Observe patients' responses, see a change in skin color or obvious bleeding. • See objects up to 20 feet away. • Read electronic medical records and/or associated paper medical records.
Tactile Skills	Tactile ability is sufficient for physical assessment.	• Perform functions of the physical assessment and/or those related to therapeutic intervention (e.g. palpation of pulse, detecting temperature changes, muscle tone and/or joint movement).
Olfactory Skills	Olfactory ability sufficient to detect significant environmental and patient odors.	• Detecting smells that could contribute to safety concerns for yourself and others, including but not limited to smoke, gasoline and burning material.
Environmental	Possess the ability to tolerate environmental stressors.	• Practice Standard Precautions in the clinical setting. • Work in areas that are close, crowded and/or noisy. • Anticipate exposure to communicable diseases, body fluids and toxic substances.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Calmly receive feedback. • Demonstrate honesty and integrity beyond reproach. • Demonstrate empathy, patience and cooperative behaviors.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the client or student.

Additional Admission Requirements for all EMS programs:

- Valid Driver's License.
- Current Health Insurance.
- Current Program Required Vaccinations.
- AHA BLS Provider CPR Card.
- TB Test.
- Criminal Background Check.
- Physical Exam.
- Drug Screen.

Engineering

EGR TECHNICAL STANDARDS

All students in the Associate in Engineering degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Description	Examples
Critical Thinking/Problem Solving Skills	Ability is sufficient to use mathematical skills for solving problems in a variety of engineering contexts. Demonstrate ability to remember, understand, apply, analyze and evaluate information.	• Apply general rules to specific problems to produce answers that make sense. • Formulate a number of ideas about a topic (the number of ideas is important, not their quality, correctness or creativity). • Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). • 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). • Choose the right mathematical methods or formulas to solve a problem. • Remember information, such as words, numbers, pictures and procedures. • Recognize when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem. • Imagine how something will look after it is moved around or when its parts are moved or rearranged.
Interpersonal Skills	Ability to interact with others whether face-to-face or through electronic means with professionalism and respect for persons from diverse social, emotional, cultural and intellectual backgrounds.	• Respond to instructors and/or other students with respect for their viewpoints whether in a traditional, face-to-face classroom or online. • Function and contribute as part of a team. • Exhibit ethical behavior and exercise good judgment in keeping with Texas State Technical College's Code of Student Conduct as published in the Student Handbook. • Negotiate interpersonal conflict.
Communication Skills	Abilities sufficient for interaction with others in verbal, nonverbal and written form.	• Listen to and understand information and ideas presented through spoken words and sentences. • Communicate information and ideas in speaking so others will understand. • Speak clearly so others can understand you. • Read and understand information and ideas presented in writing. • Communicate information and ideas in writing so others will understand.

Auditory Skills	Auditory abilities are sufficient for classroom or online needs.	- Distinguish and respond to sounds at a close range including but not limited to an instructor, other students in a classroom and audio recordings. - Focus on a single source of sound in the presence of other distracting sounds. - Detect or tell the differences between sounds that vary in pitch and loudness.
Visual Skills	Visual ability is sufficient for comprehending printed materials, images or videos projected on a screen.	- Tolerate working indoors in artificial light and the glare of a computer screen. - Read printed or electronic documents. - Use depth perception and peripheral vision. - Match or detect differences between colors, including shades of color and brightness.
Tactile Skills	Tactile ability is sufficient for written communication and handling of equipment.	Utilize instrumentation tools, technology and scientific equipment.
Mobility/Motor Skills	Physical abilities sufficient to function in a classroom or online setting while following the College's Code of Student Conduct so that the learning environment is not compromised.	- Quickly respond (with the hand, finger or foot) to a signal (sound, light, picture) when it appears. - 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.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	- Concentrate on a task over a period of time without being distracted. - Shift back and forth between two or more activities or sources of information (such as speech, sounds, touch or other sources). - Seek support and/or follow reporting procedures as needed for injuries, illness, Title IX concerns, etc. as outlined in the Student Handbook. - Solve personal and interpersonal problems. - Cope with your own emotions. - Cope with strong emotions in others.
Environmental Skills	Possess the ability to tolerate environmental stressors.	Know your location in relation to the environment or to know where other objects are in relation to you.
Behavioral Skills	Possess sufficient emotional stability and self-regulation skills to assume personal responsibility and accountability for following the Code of Student Conduct and Code of Classroom Conduct as outlined in the Student Handbook.	- Maintain composure and integrity, while navigating changing environments, stressful classroom situations and professional disagreements. - Maintain focus on attention to detail, while balancing multiple responsibilities such as safety and quality.

Technical standards as stated here reflect performance abilities that are necessary for a student to successfully complete the requirements of the specified program. Students should verify their ability to perform these technical standards with or without accommodations. In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements,

cause undue hardship or produce a direct threat to the safety of the student.

Texas State Technical College is invested in full compliance with the Americans with Disabilities Act (ADA). Any student who believes they may not be able to perform the functions listed may contact the Access and Learning Accommodations (adarequest@tstc.edu) office to discuss whether reasonable accommodations can be made without fundamental alteration to the requirements of the program.

Health Information Technology

HIT TECHNICAL STANDARDS

The Health Information Technology program has established technical standards to ensure that students have the abilities required to function in the classroom, lab and practicum environment. These standards are essential for the successful completion of all phases of the program which reflect industry requirements and standards.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Utilize critical thinking skills to assemble, analyze, process and communicate essential health information	• Complete assignments on time, adhere to deadlines and analyze information to come up with possible solutions. • Troubleshoot software application issues. • Demonstrate the ability to multi-task and adapt to and display flexibility in changing situations. • Perform the above skills independently.
Interpersonal Skills	Work collaboratively and effectively with a diverse population in a variety of settings and situations.	• Work cooperatively with partners and individuals. • Work diligently and devote the necessary time to complete tasks. • Exhibit behavioral and ethical skills appropriate to professional interactions. • Exercise good judgment. • Respect and care for others whose appearance, condition, beliefs and values may conflict with your own. • Demonstrate sufficient emotional health to perform under stress, exercise good judgment, and promptly complete all academic work and work-based learning responsibilities.

Communication Skills	Effectively communicate (verbal and non-verbal) in the classroom and in a simulated office environment.	- Provide and follow directions from other members of the class or instructors. - Present ideas and create presentations to convey those ideas. - Demonstrate active listening skills. - Receive, organize, prioritize and transmit information. - Document problems and procedures (verbally, written and electronically). - Adapt communication to individuals' abilities to understand.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	- Solve personal and interpersonal problems. - Demonstrate ability to resolve conflicts in the college and workplace environment. - Ability to multitask in a stressful environment and meet deadlines.
Mobility/Motor Skills	Possess good dexterity (eye and hand coordination). Sufficient gross and fine motor skills to manipulate equipment. Use of computer keyboard and repetitive keying functions. Ability to perform office functions, such as sitting, standing and working in small spaces for long periods of time.	- Have mobility, strength and dexterity to be able to lift at least 10 pounds. - Perform duties on a computer as related to records management and data entry with accuracy. - Use office equipment effectively.
Auditory Skills	Comprehension and understanding of spoken language.	- Discern directions in online environments. - Review videos in the online environment. - Place and receive telephone or video calls for conducting business. - Respond to instructions. - Respond to emergency alert systems.
Visual Skills	Ability to tolerate viewing a computer screen for extended lengths of time.	- Use computers to conduct business. - Observe computer issues and possible problems. - Read electronic medical records and/or associated paper medical records.
Tactile Skills	Use a computer keyboard, number keypad and mouse repetitively. Operate and utilize office materials and office equipment/software daily.	- Perform duties on a computer as related to records management and data entry with accuracy. - Pick up reams of paper to load into a copier or other equipment.
Environmental	Ability to tolerate reasonable levels of light, sound and temperature.	- Ability to prioritize requests and meet deadlines. - Ability to multitask using different operating systems.

Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Exercise independent judgment to effectively solve problems and make decisions. • Adapt to changing environments and/or stress. • Demonstrate honesty and integrity beyond reproach. • Work independently with minimal supervision. • Represent the company with customers and must maintain professionalism in both appearance and action.

HVAC Technology

HVA TECHNICAL STANDARDS

All students in the Heating, Ventilation and Cooling (HVAC) program are expected to meet certain technical standards that are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem - Solving Skills	Show the ability to complete classroom and lab coursework that simulates real-world problems.	• Show the ability to diagnose problems by using a meter or tools for specific applications. • Utilize theory and trade practices to maintain the functionality of the equipment. • Apply technical knowledge of the problem to the current situation or problem.
Interpersonal Skills	Abilities are sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Be able to work alone or in a group and stay focused on the current task. • Demonstrate time management skills. • Communicate information with accuracy and respect.
Communication Skills	Abilities sufficient for writing, reading and comprehending directions or instructions in the class or lab.	• Read a service manual and comprehend the information. • Complete course lab assignments and explain corrective actions in written and verbal formats. • Comprehend/follow written and verbal instructions.

Coping Skills	Abilities are sufficient to be productive in a classroom or lab environment.	- Be able to meet deadlines. - Be able to deal with critiques/criticism. - Maintain composure under stressful situations. - Maintain professionalism at all times.
Mobility/Motor Skills	Must possess the ability to lift, stand, stretch, squat and crawl or contort to any position as required by the repair situation. All positions listed above will be encountered in the class, lab or a work-based learning setting on a consistent basis.	- Navigate around objects or obstacles on the floor or overhead. - Lift a minimum of 50 pounds to chest level from the floor level. - Be able to work on stationary equipment that requires reaching, bending and potentially prone positions for up to 60 minutes. - Be able to move about the work area in various outside working conditions. - Be able to work in confining or tight spaces. - Operate hand and/or power tools continually. - Be able to complete physical course lab assignments for up to 90 minutes without sitting.
Auditory Skills	Auditory abilities are sufficient to work safely in an industry environment, class or lab.	- Detect sounds such as unusual noises in outdoor and indoor HVAC equipment. - Detect sounds being emitted from the motors, compressors and control systems. - Be able to hear verbal instructions, because the line of sight is not always possible.
Visual Skills	Visual skills adequate to safely work in a class or lab with industrial equipment.	- Interpret information from diagrams, labs and test equipment. - Able to see in low or poor lighting conditions, such as crawl spaces and attics. - Perceive different depths and dimensions.
Tactile Skills	Tactile skills adequate for work in a class or lab with industrial equipment.	Be able to determine hot or cold temperatures by the sense of touch.
Environmental	Must be able to function safely under varying environmental factors.	- Maintain focus and productivity in a noisy environment. - Work inside and outside under variable temperature, humidity and weather conditions.

Emotional/Behavioral	Emotional/behavior skills are adequate to maintain composure in a stressful environment.	- Demonstrate flexibility to calmly change course while addressing a technical problem. - Follow the directions of an instructor, supervisor or lead technician. - Demonstrate professionalism, integrity and honesty. - Cope with stress and other factors while troubleshooting technical problems both individually and as part of a group.

Technical standards as stated here reflect performance abilities that are necessary for a student to successfully complete the requirements of the specified program. Students should verify their ability to perform these technical standards with or without accommodations. In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the student.

Texas State Technical College is invested in full compliance with the Americans with Disabilities Act (ADA). Any student who believes they may not be able to perform the functions listed may contact the Access and Learning Accommodations (adarequest@tstc.edu) office to discuss whether reasonable accommodations can be made without fundamental alteration to the requirements of the program.

Industrial Systems

IST TECHNICAL STANDARDS

All students in the Industrial Systems Technology degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards.

To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below. Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples

Critical Thinking/Problem Solving Skills	Ability to apply industrial systems theory and practices to address technical problems and challenges in class and labs with industrial equipment. Understand schematics and other technical documents to properly interpret the data to solve problems.	The ability to use critical thinking techniques to perform a Root Cause Analysis to form a plan for repairing equipment failures. The ability to add, subtract, multiply or divide quickly and correctly for use with safety and installation requirements for equipment. The ability to remember information, such as words, numbers, pictures and procedures. 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). The ability to combine or separate information (fluid power, electrical and mechanical systems) for installing and troubleshooting industrial equipment. The ability to examine data and find patterns of equipment failure. The ability to recognize changes in production patterns and determine the cause of those changes. The ability to apply general rules to specific problems to produce answers that make sense. The ability to combine pieces of information to form general rules or conclusions. The ability to imagine how a component will look from a 3 dimensional drawing or image.

Interpersonal/Communication Skills	Abilities to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds. Must be able to effectively work in teams or groups. Abilities for interaction with others in verbal and written form. Effectively communicate using oral and written technical documents. Must be able to read equipment instructions and machine controls.	The ability to work in a self-sufficient and self-directed manner. The ability to work in a team or group setting with students of different backgrounds, ethnicity or gender. The ability to work in a diverse team or group of co-workers. The ability to read technical specifications. The ability to read and understand machine labels, controls and instruction material. The ability to listen to and understand information and ideas presented through spoken words and sentences. The ability to communicate information and ideas in speaking so others will understand. The ability to speak clearly so others can understand you. The ability to read and understand information and ideas presented in writing. The ability to research and find alternatives to understanding technical documents written in other languages. The ability to communicate clearly with associates to convey work instructions, unsafe conditions, equipment failures and the ability to understand the communication from other associates. The ability to communicate information and ideas in writing so others will understand.
Mobility/Motor Skills	Physical abilities to move in one's environment with ease and without restriction.	The ability to complete laboratory assignments. The ability to move and work safely in a lab/classroom environment. The ability to coordinate the movement of your arms, legs and torso together when the whole body is in motion. The ability to keep or regain your body balance or stay upright when in an unstable position.

Physical Senses Skills	The ability to use auditory, visual, tactile and olfactory senses to successfully perform the tasks of a technical student.	Distinguish and respond to sounds of equipment, instructor commands and communication from classmates. Distinguish shapes, colors, safety symbols and instructions. The ability to read and understand machine labels, controls and instruction material. The ability to lift 25lbs or more. Use hand tools needed to complete labs or projects.
Environmental	Possess the ability to tolerate environmental stressors and apply appropriate PPE as required.	Tolerate variable indoor/outdoor temperatures. Safely work with potentially hazardous materials. Tolerate course activities in an industrial lab with equipment noise and operating equipment. Appropriately wear safety PPE such as, but not limited to: safety glasses, face shields, gloves, fire resistant clothing, welding hood and hearing protection as require in certain lab/classroom situations.
Emotional/ Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions. Abilities to be productive in a classroom, lab or industrial atmosphere.	Must be alert and attentive during class and laboratory activities. The ability to complete a task over a given period of time. The ability to handle stressful troubleshooting scenarios. The ability to give and accept constructive criticism. Must be able to adapt to different teaching modalities, lab settings or classroom environments. The ability to work individually or in a group. The ability to handle stressful troubleshooting scenarios.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the patient or student.

Instrumentation Technology

INT TECHNICAL STANDARDS

All students in the Instrumentation Technology degree program are expected to meet certain technical standards which

are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards.

To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below. Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability to objectively analyze information and draw a rational conclusion.	• Be able to use and understand simple computer operations and programs. • Access information using the internet and other electronic devices.
Interpersonal/Communication Skills	Ability to work and communicate with others whether face-to-face or through electronic means.	• Be able to have conversations with one or more people though face-to-face contact or digital means.
Mobility/Motor Skills	Safely perform physical activities in a classroom and laboratory setting.	• Move around and work in a classroom setting. • Capable of wearing the appropriate personal protective equipment (PPE) for the required task.
Physical Senses Skills	The ability to use auditory, visual and tactile senses. The ability to lift 25 lbs. or more.	• Distinguish and respond to sounds of equipment, instructor commands and communication from classmates. • Distinguish shapes, colors and safety symbols. • Read technical manuals. • Gauge relative distance and peripheral vision.
Environmental	Possess the ability to tolerate environmental factors.	• Tolerate variable indoor/outdoor temperatures. • Safely work with potentially hazardous areas • Work in areas that are close, crowded and/or noisy.

Emotional/Behavioral	Possess emotional stability to maintain composure in stressful situations.	- Maintain composure and integrity, while navigating changing environments, stressful decisions and professional disagreements. - Maintain focus on attention to detail, while balancing multiple responsibilities such as safety and quality.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the patient or student.

Mathematics

MTH TECHNICAL STANDARDS

All students in the Associate of Science in Mathematics degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. In mathematics programs, specific skill standards have been set to ensure that students possess the requisite abilities for success in academic coursework, practical mathematical applications, and effective problem-solving situations. These standards are integral to progressing through all phases of the program and are aligned with industry expectations and benchmarks. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Description	Examples

Critical Thinking/Problem-Solving Skills	Ability is sufficient for solving problems in various contexts.	• Generate or use different sets of rules for combining or grouping things in different ways. • Identify or detect a known pattern (a figure, object, word or sound) that is hidden in other distracting material. • Come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness or creativity). • Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). • Choose the right mathematical methods or formulas to solve a problem. • Remember information such as words, numbers, pictures and procedures. • Add, subtract, multiply or divide quickly and correctly. • Come up with unusual or clever ideas about a given topic or situation, or develop creative ways to solve a problem. • Tell when something is wrong, or is likely to go wrong. It does not involve solving the problem, only recognizing that there is a problem. • Quickly make sense of, combine and organize information into meaningful patterns.
Interpersonal Skills	Ability is sufficient to interact with individuals, families and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Exhibit ethical behavior and exercise good judgment in keeping with Texas State Technical College's Code of Student Conduct as published in the Student Handbook. • Be fully present in conversation. • Establish rapport with instructors, staff and other students individually and in groups.
Communication Skills	Ability is sufficient for interaction with others in verbal and written form.	• Read and understand information and ideas presented in writing. • Communicate information and ideas in writing so others will understand. • Explain how mathematical formulas/symbols apply to real life situations. • Listen to, and understand, information and ideas presented through spoken words and sentences. • Communicate information and ideas in speaking so others will understand.
Auditory Skills	Ability is sufficient for classroom or online needs.	• Focus on a single source of sound in the presence of other distracting sounds.
Visual Skills	Ability is sufficient to arrange and comprehend observed information, attributing significance to it.	• Interpreting and understanding visual information in terms of spatial relationships.

Tactile Skills	Ability is sufficient to work properly with manipulatives and apply the correct procedures.	• Understand profound mathematical concepts by interacting with tangible objects.
Mobility/Motor Skills	Physical abilities sufficient to function in a classroom or online setting while following the College's Code of Student Conduct so that the learning environment is not compromised. Ability is sufficient for working with manipulatives.	• Dive into the investigation of spatial areas, patterns and shapes.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	• Seek support and/or follow reporting procedures as needed for injuries, illness, Title IX concerns, etc. as outlined in the Student Handbook. • Concentrate on a task over a period of time without being distracted. • Engage in a behavioral plan to solve a problem. • View the positive or meaningful aspects of the situation.
Environmental Skills	Possess the ability to maintain composure in stressful situations	• Keep spaces organized and maintain a structured environment fostering a feeling of control.
Behavioral Skills	Possess sufficient emotional stability and self-regulation skills to assume personal responsibility and accountability for following the Code of Student Conduct and Code of Classroom Conduct as outlined in the Student Handbook.	• Adapt rapidly and be flexible to changing environments and/or stress. • Calmly receive feedback. • Demonstrate honesty and integrity beyond reproach. • Exercise safe and sound judgment.

Technical standards as stated here reflect performance abilities that are necessary for a student to successfully complete the requirements of the specified program. Students should verify their ability to perform these technical standards with or without accommodations. In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the student.

Texas State Technical College is invested in full compliance with the Americans with Disabilities Act (ADA). Any student who believes they may not be able to perform the functions listed may contact the Access and Learning Accommodations (adarequest@tstc.edu) office to discuss whether reasonable accommodations can be made without fundamental alteration to the requirements of the program.

Mechatronics Technology

MEC TECHNICAL STANDARDS

All students in the Mechatronics Technology degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability is sufficient to use basic computer and word processing skills. Demonstrate ability to remember, understand, apply, analyze and evaluate information.	- Be able create documents using Office Tools. - Access information using the internet and in Canvas. - Utilize and apply information gathered from printed and electronic resources. - Process information from multiple sources. - Collect, examine and interpret technical data. - Logical approach to troubleshooting processes.
Interpersonal/Communication Skills	Ability to work and communicate with others whether face-to-face or through electronic means with professionalism and respect for persons from diverse social, emotional, cultural and intellectual backgrounds.	- Respond with constructive feedback to instructors and/or other students. - Function and contribute as part of a team. - Mediate different point of views to determine the best solution.
Mobility/Motor Skills	Safely perform physical activities in a classroom and laboratory setting.	- Move around and work in a classroom setting. - Perform physical activities including but not limited to maintenance, troubleshooting, repair and installation of equipment. - Capable of wearing the appropriate personal protective equipment (PPE) for the required task.
Physical Senses Skills	The ability to use auditory, visual, tactile and olfactory senses to successfully perform the tasks of a technical student.	- Distinguish and respond to sounds of equipment, instructor commands and communication from classmates. - Distinguish shapes, colors, safety symbols and instructions. - Read technical manuals. - The ability to determine relative distances using depth perception and sense objects in peripheral vision. - Utilize tools, meters and control equipment with manual dexterity. - Differentiate between the different odors from chemical, malfunctioning equipment and hazards.
Environmental	Possess the ability to tolerate environmental stressors.	- Tolerate variable indoor/outdoor temperatures. - Safely work with potentially hazardous materials. - Work in areas that are close, crowded and/or noisy. - Ability to walk and stand for extended periods of time.

Emotional/Behavioral	Possess emotional stability sufficient to assume responsibility/accountability for actions and maintain composure in stressful situations.	- Maintain composure and integrity, while navigating changing environments, stressful engineering decisions, and professional disagreements. - Maintain focus on attention to detail, while balancing multiple responsibilities such as safety and quality.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the patient or student.

Nursing — ADN Transition Program

ADN TECHNICAL STANDARDS

Nursing programs have established technical standards to ensure that students have the abilities required to function in the classroom, lab, and clinical environment. These standards are essential for the successful completion of all phases of the program which reflect industry requirements and standards.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	- Ability is sufficient for sound nursing judgment. - Reasoning skills sufficient to perform deductive/inductive thinking for nursing decisions.	- Evaluate client or instrument responses, synthesize data, and draw sound conclusions - Collect data, prioritize needs, and anticipate reactions. - Identify cause-effect relationships in clinical situations. - Transfer knowledge from one situation to another.
Interpersonal Skills	Abilities are sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, and intellectual backgrounds.	- Establish rapport with clients, instructors, staff, colleagues, and groups. - Respect and care for clients whose appearance, condition, beliefs, and values may conflict with your own. - Deliver nursing care regardless of the client's race, ethnicity, age, gender, religion, sexual orientation, or diagnosis. - Establish and maintain therapeutic boundaries. - Exhibit ethical behavior and exercise good judgment.

Communication Skills	• Abilities are sufficient for interaction with others in verbal and written form.	• Document and interpret actions and client responses in a clear, professional, and timely manner. • Convey information to clients and others as necessary to teach and direct in an accurate, effective, and timely manner. • Recognize and report critical client information to other caregivers. • Read, write, comprehend, and speak the English language to facilitate communication with instructors, clients and their family members, and other health care professionals.
Coping Skills	• Possess coping skills sufficient to maintain composure in stressful situations.	• Adapt rapidly to changing environments and/or stress.
Mobility/Motor Skills	• Gross and fine motor abilities are sufficient to provide safe and effective nursing care and emergency treatment.	• Move around in work and treatment areas. • Administer cardiopulmonary resuscitation. • Stand and/or walk up to 12 hours per day with or without breaks. • Calibrate and use the equipment. • Reposition immobile clients. • Push/pull 100 pounds or greater. • Lift/move heavy objects up to 50 pounds. • Pinch/pick or otherwise work with fingers
Auditory Skills	• Auditory abilities are sufficient to monitor and assess health needs.	• Hear internal body sounds with the use of a stethoscope. • Hear auditory alarms (monitors, fire alarms, call bells). • Hear cries for help.
Visual Skills	• Visual ability sufficient for observation and assessment necessary in nursing.	• Observe client responses, see a change in skin color, and read calibrations on a syringe. • See objects up to 20 feet away. • Read electronic medical records and/or associated paper medical records.
Tactile Skills	• Tactile ability is sufficient for physical assessment.	• Perform functions of the physical assessment and/or those related to therapeutic intervention (e.g. insertion of a catheter, palpation of pulse, detecting temperature changes).
Olfactory Skills	• Olfactory ability sufficient to detect significant environmental and client odors.	• Detect odors from clients.

Environmental	• Possess the ability to tolerate environmental stressors.	• Safely work with potentially harmful chemicals used in health care settings. • Practice Standard Precautions in the clinical setting. • Work in areas that are close, crowded, and/or noisy. • Anticipate exposure to communicable diseases, body fluids, and toxic substances.
Emotional/Behavioral	• Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Calmly receive feedback. • Demonstrate honesty and integrity beyond reproach.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the client or student.

Additional Admission Requirements for LVN to ADN Transition Program:

- Driver's License
- Valid, Unencumbered LVN License
- Current Program Required Vaccinations
- Clearance from Texas Board of Nursing (background check and/or fingerprinting as indicated by the Board of Nursing)

Occupational Safety and Environmental Compliance Technology

OSE TECHNICAL STANDARDS

All students in the Occupational Safety and Environmental Compliance program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Abilities are sufficient for the classroom, lab and work in industry situations.	• Receive, interpret and correctly complete assignments (e.g., reading, research, writing, and presentations). • Assess case studies and identify an appropriate plan for problem resolution. • Synthesize facts and information gathered to deduce the cause of the incident.

Interpersonal Skills	Abilities are sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Establish rapport with teammates and others participating in projects. • Respect and care for teammates, victims and citizens whose appearance, condition, beliefs and values may conflict with your own. • Demonstrate sufficient emotional health to perform under stress, exercise good judgment, and promptly complete all academic and work-based learning responsibilities.
Communication Skills	Abilities are sufficient for interaction with others in verbal and written form.	• Speak and write clearly and distinctly in preparing documents, creating reports and testifying in simulated court proceedings. • Provide and follow directions from other members of the class or instructors. • Demonstrate active listening skills.
Coping Skills	Ability to maintain a state of harmony.	• Solves personal and interpersonal problems. • Minimizes stress and conflict. • Balances internal needs and external demands.
Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction.	• Some courses may require motor skills to participate in demonstrations or observe activities.
Auditory Skills	Auditory abilities are sufficient to work effectively and safely.	• Discern the instructor's direction in a classroom, online and in the lab environment. • Review videos in the classroom, online and in the lab environment.
Visual Skills	Visual ability is sufficient for observation and assessment necessary in the classroom, lab and other locations on the campus.	• Review course text, case files, notes, agency reports, budget documents and presentations. • Ability to observe deficiencies and/or compliance concerns during inspection labs.
Tactile Skills	(Minimal) Tactile ability is sufficient to identify differences in textures and weight.	• Identify burns, degradation or damage to personal protective Equipment (PPE) or sampling equipment during lab activities.
Environmental	Ability to tolerate environmental stressors.	• Practice standard safety precautions in the field.
Emotional/Behavioral	Emotional stability is sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Adapt rapidly to changing environments and/or stress. • Calmly receive feedback. • Demonstrate honesty and integrity beyond reproach.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the patient or student.

Physics

PHY TECHNICAL STANDARDS

All students in the Associate in Physics degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Description	Examples
Critical Thinking/Problem-Solving Skills	Ability is sufficient to use mathematical skills for solving problems in a variety of physics contexts. Demonstrate ability to remember, understand, apply, analyze and evaluate information.	• Generate or use different sets of rules for combining or grouping things in different ways. • Apply general rules to specific problems to produce answers that make sense. • Identify or detect a known pattern (a figure, object, word or sound) that is hidden in other distracting material. • Formulate a number of ideas about a topic (the number of ideas is important, not their quality, correctness or creativity). • Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). • 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). • Choose the right mathematical methods or formulas to solve a problem. • Remember information, such as words, numbers, pictures and procedures. • Add, subtract, multiply or divide quickly and correctly. • Devise unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem. • 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. • Recognize when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem. • Quickly make sense of, combine, and organize information into meaningful patterns. • Imagine how something will look after it is moved around or when its parts are moved or rearranged.

Interpersonal Skills	Ability to interact with others whether face-to-face or through electronic means with professionalism and respect for persons from diverse social, emotional, cultural and intellectual backgrounds.	• Respond to instructors and/or other students with respect for their viewpoints whether in a traditional, face-to-face classroom or online. • Function and contribute as part of a team. • Exhibit ethical behavior and exercise good judgment in keeping with Texas State Technical College's Code of Student Conduct as published in the Student Handbook. • Negotiate interpersonal conflict.
Communication Skills	Abilities sufficient for interaction with others in verbal, nonverbal and written form.	• Listen to and understand information and ideas presented through spoken words and sentences. • Communicate information and ideas in speaking so others will understand. • Read and understand information and ideas presented in writing. • Communicate information and ideas in writing so others will understand.
Auditory Skills	Auditory abilities are sufficient for classroom or online needs.	• Distinguish and respond to sounds at a close range including but not limited to an instructor, other students in a classroom, and audio recordings.
Visual Skills	Visual ability is sufficient for comprehending printed materials, images or videos projected on a screen.	• Tolerate working indoors in artificial light and the glare of a computer screen. • See objects up to 20 feet away. • Read printed or electronic documents. • Use depth perception and peripheral vision.
Tactile Skills	Tactile ability is sufficient for written communication and handling of equipment.	• Utilize instrumentation tools, technology and scientific equipment. • Assess, examine and interpret findings through touch.
Mobility/Motor Skills	Physical abilities sufficient to function in a classroom or online setting while following the College's Code of Student Conduct so that the learning environment is not compromised.	• Move around and work in a classroom setting. Classes may be up to 180 minutes in duration and may require presentations and moving within the classroom for group work. • Perform physical activities including but not limited to the manual dexterity sufficient to operate a computer, keyboard or other lab equipment. • Tolerate wearing personal protective equipment including but not limited to masks, safety goggles, aprons and gloves.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	• Concentrate on a task over a period of time without being distracted. • Shift back and forth between two or more activities or sources of information (such as speech, sounds, touch or other sources). • Seek support and/or follow reporting procedures as needed for injuries, illness, Title IX concerns, etc. as outlined in the Student Handbook. • Solve personal and interpersonal problems. • Cope with your own emotions. • Cope with strong emotions in others.
Environmental Skills	Possess the ability to tolerate environmental stressors.	• Know your location in relation to the environment or to know where other objects are in relation to you.

Behavioral Skills	Possess sufficient emotional stability and self-regulation skills to assume personal responsibility and accountability for following the Code of Student Conduct and Code of Classroom Conduct as outlined in the Student Handbook.	• Maintain composure and integrity, while navigating changing environments, stressful classroom situations, and professional disagreements. • Maintain focus on attention to detail, while balancing multiple responsibilities such as safety and quality.

Technical standards as stated here reflect performance abilities that are necessary for a student to successfully complete the requirements of the specified program. Students should verify their ability to perform these technical standards with or without accommodations. In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the student.

Texas State Technical College is invested in full compliance with the Americans with Disabilities Act (ADA). Any student who believes they may not be able to perform the functions listed may contact the Access and Learning Accommodations (adarequest@tstc.edu) office to discuss whether reasonable accommodations can be made without fundamental alteration to the requirements of the program.

Plumbing & Pipefitting Technology

PLB TECHNICAL STANDARDS

Plumbing programs have established technical standards to ensure that students have the abilities required to function in the classroom, lab and outdoor environment. These standards are essential for the successful completion of all phases of the program which reflect industry requirements and standards.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Show the ability to complete classroom and lab coursework that simulates real-world problems. The ability to generate or use different sets of rules for combining or grouping things in different ways.	• Show the ability to diagnose problems by using a meter or tools for specific applications. • Utilize theory and trade practices to maintain the functionality of the equipment. • Apply technical knowledge of the problem to the current situation or problem. • Deductive Reasoning: The ability to apply general rules to specific problems to produce answers that make sense.
Interpersonal Skills	Abilities are sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Be able to work alone or in a group and stay focused on the current task. • Demonstrate time management skills. • Communicate information with accuracy and respect.

Communication Skills	Abilities sufficient for writing, reading and comprehending directions or instructions in the class or lab.	• Read a service manual and comprehend the information. • Complete course lab assignments and explain corrective actions in written and verbal formats. • Comprehend/follow written and verbal instructions.
Coping Skills	Abilities are sufficient to be productive in a classroom or lab environment.	• Be able to meet deadlines. • Be able to deal with critiques/criticism. • Maintain composure under stressful situations. • Maintain professionalism at all times.
Mobility/Motor Skills	Must possess the ability to lift, stand, stretch, squat and crawl or contort to any position as required by the repair situation. All positions listed above will be encountered in the class, lab, or a work-based learning setting on a consistent basis.	• Navigate around objects or obstacles on the floor or overhead. • Lift a minimum of 50 lbs. to chest level from the floor level. • Be able to work on stationary equipment that requires reaching, bending and potentially prone positions for up to 60 minutes. • Be able to move about the work area in various outside working conditions. • Be able to work in confining or tight spaces. • Operate hand and/or power tools continually. • Be able to complete physical course lab assignments for up to 90 minutes without sitting.
Auditory Skills	Auditory abilities are sufficient to work safely in an industry environment, class or lab.	• Detect sounds such as unusual noises in outdoor and indoor Plumbing equipment. • Detect sounds being emitted from the motors, lifts and heavy equipment. • Be able to hear verbal instructions, because the line of sight is not always possible.
Visual Skills	Visual skills adequate to safely work in a class or lab with industrial equipment.	• Interpret information from diagrams, labs and test equipment. • Able to see in low or poor lighting conditions such as crawl spaces and attics. • Perceive different depths and dimensions.
Tactile Skills	Tactile skills adequate for work in a class or lab with industrial equipment.	• Be able to determine hot or cold temperatures by the sense of touch.

Emotional/Behavioral	Emotional/Behavior skills are adequate to maintain composure in a stressful environment.	- Demonstrate flexibility to calmly change course while addressing a technical problem. - Follow the directions of an instructor, supervisor or lead technician. - Demonstrate professionalism, integrity and honesty. - Cope with stress and other factors while troubleshooting technical problems both individually and as part of a group.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the client or student.

Additional Admission / Licenses Requirements for Texas State Board of Plumbing Examiners

- Driver's License
- Clearance from Texas State Board of plumbing Examiners (background check and/or fingerprinting as indicated by the Board of Plumbing)

Precision Machining Technology

PMT TECHNICAL STANDARDS

All students in the Precision Machining Technology degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem Solving Skills	The ability to apply theory and practices to address technical problems and challenges in class and labs.	The ability to use critical thinking techniques to troubleshoot problems and to form a plan for solving those problems. The ability to examine data and find patterns of equipment and production processes. The ability to recognize changes in production patterns and determine the cause of those changes.
Interpersonal Skills	The ability to interact with diverse individuals and groups in a friendly and professional way.	The ability to work in a self-sufficient and self-directed manner. The ability to work in a team or group setting with students of different backgrounds, ethnicity or gender. The ability to work in a diverse team or group of co-workers.

Communication Skills	The ability to effectively communicate through both verbal and written means.	The ability to read and understand information and ideas presented in writing. The ability to listen to and understand information and ideas presented through spoken words and sentences. The ability to clearly communicate information and ideas in speaking so others will understand. The ability to communicate information and ideas in writing so others will understand.
Coping Skills	The ability to adapt and be productive in a dynamic environment.	Must be able to adapt to different teaching modalities, lab settings or classroom environments. The ability to handle stressful troubleshooting scenarios. The ability to work individually or in a group. The ability to know your location in relation to the environment or to know where other objects are in relation to you. The ability to work safely in an adverse environment such as extreme hot and cold environments.
Mobility/Motor Skills	The ability to move within the classroom or lab to perform basic physical tasks. Must be able to lift up to 50 pounds.	Participate in laboratory assignments. The ability to bend, stretch, twist or reach with your body, arms and/or legs. The ability to coordinate the movement of your arms, legs and torso together when the whole body is in motion. The ability to keep or regain your body balance or stay upright when in an unstable position. The ability to exert muscle force to lift, push, pull or carry objects.

Auditory Skills	The ability to recognize and interpret auditory signals or sounds.	Must be able to discern audible equipment alarms and tones. The ability to detect or tell the differences between sounds that may signify a equipment failure or an unsafe condition. The ability to tell the direction from which a sound originated. The ability to focus on a single source of sound in the presence of other distracting sounds. Must be able to hear instructions in an industrial environment. The ability to identify and understand the speech of another person.
Visual Skills	Visual ability is sufficient for observation and assessment necessary in the classroom, lab and other locations on the campus. Reading prints, schematics, charts and spreadsheets (written or on a computer monitor). Must be able to respond to visual displays on industrial equipment.	See and respond to warning light(s) of different colors. Read information on a computer monitor, TV or other screen devices (ex. touchscreen or teach pendant). The ability to determine relative distances using depth perception. The ability to recognize defects and/or minor damage in equipment and/or industrial systems. The ability to match or detect differences between colors, including shades of color and brightness.
Tactile Skills	The ability to physically manipulate common devices, tools or equipment.	Use hand tools needed to complete labs or projects. The ability to quickly and repeatedly adjust the controls of a machine to exact positions. The ability to make precisely coordinated movements to manipulate or assemble very small objects. The ability to coordinate two or more limbs while sitting, standing or lying down (like installing a device while laying on the floor). The ability to coordinate and time movements to match other moving objects, like grasping a moving part. The ability to quickly respond (with motions) to a signal (sound, light, picture) when it appears. The ability to make fast, simple, repeated movements of the fingers, hands and wrists.

Environmental	Must be able to function safely under varying environmental conditions. Must be able to wear lab-specific Personal Protective Equipment (PPE).	Appropriately wear safety PPE such as, but not limited to: safety glasses, face shields, gloves, fire resistant clothing, protective footwear and hearing protection. Tolerate course activities in an industrial lab with equipment noise and operating equipment. The ability to safely adapt to extreme temperature ranges. The ability to safely manage operations at various heights.
Emotional/ Behavioral	The ability to maintain composure in a stressful situation, and to maintain accountability for ones own actions.	Must be alert and attentive during class and laboratory activities. Must be able to work on multiple projects while adhering to deadlines. The ability to work within a team environment. The ability to concentrate on a task over a period of time without being distracted. The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch or other sources. The ability to give and accept constructive criticism. The ability to demonstrate punctuality.

Technical standards as stated here reflect performance abilities that are necessary for a student to successfully complete the requirements of the specified program. Students should verify their ability to perform these technical standards with or without accommodations. In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the student.

Texas State Technical College is invested in full compliance with the Americans with Disabilities Act (ADA). Any student who believes they may not be able to perform the functions listed may contact the Access and Learning Accommodations (adarequest@tstc.edu) office to discuss whether reasonable accommodations can be made without fundamental alteration to the requirements of the program.

Process Operations

PRO TECHNICAL STANDARDS

All students in the Process Operations Technology degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples

Critical Thinking/Problem Solving Skills	Ability to learn and operate digital devices such as PC's, electronic calculators. Ability to understand, apply, analyze and evaluate information.	Be able to learn & understand simple computer operations and programs. Access information using the internet and other electronic devices. Utilize and information gathered from printed and electronic resources.
Interpersonal/Communication Skills	Ability to work and communicate with others whether face-to-face or through electronic means.	Be able to have conversations with one or more people though face to face contact or digital means.
Mobility/Motor Skills	Safely perform physical activities in a classroom and laboratory setting.	Move around and work in a classroom setting. Capable of wearing the appropriate personal protective equipment (PPE) for the required task.
Physical Senses Skills	The ability to use auditory, visual, tactile and olfactory senses to successfully perform the tasks of a technical student. The ability to lift 25lbs or more.	Distinguish and respond to sounds of equipment, instructor commands and communication from classmates. Distinguish shapes, colors, safety symbols and instructions. Read technical manuals. Use depth perception and peripheral vision.
Environmental	Possess the ability to tolerate environmental stressors.	Tolerate variable indoor/outdoor temperatures. Safely work with potentially hazardous materials. Work in areas that are close, crowded and/or noisy. Ability to walk and stand for extended periods of time.

Emotional/Behavioral	Possess emotional stability sufficient to assume responsibility/accountability for actions and maintain composure in stressful situations.	Maintain composure and integrity, while navigating changing environments, stressful decisions and professional disagreements. Maintain focus on attention to detail, while balancing multiple responsibilities such as safety and quality.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the patient or student.

Robotics & Industrial Controls

ROB TECHNICAL STANDARDS

All students in the Robotics & Industrial Controls Technology degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem Solving Skills	The ability to apply theory and practices to address technical problems and challenges in class and labs.	The ability to use critical thinking techniques to troubleshoot problems and to form a plan for solving those problems. The ability to examine data and find patterns of equipment and production processes. The ability to recognize changes in production patterns and determine the cause of those changes.
Interpersonal Skills	The ability to interact with diverse individuals and groups in a friendly and professional way.	The ability to work in a self-sufficient and self-directed manner. The ability to work in a team or group setting with students of different backgrounds, ethnicity or gender. The ability to work in a diverse team or group of co-workers.

Communication Skills	The ability to effectively communicate through both verbal and written means.	The ability to read and understand information and ideas presented in writing. The ability to listen to and understand information and ideas presented through spoken words and sentences. The ability to clearly communicate information and ideas in speaking so others will understand. The ability to communicate information and ideas in writing so others will understand.
Coping Skills	The ability to adapt and be productive in a dynamic environment.	Must be able to adapt to different teaching modalities, lab settings or classroom environments. The ability to handle stressful troubleshooting scenarios. The ability to work individually or in a group. The ability to know your location in relation to the environment or to know where other objects are in relation to you. The ability to work safely in an adverse environment such as extreme hot and cold environments.
Mobility/Motor Skills	The ability to move within the classroom or lab to perform basic physical tasks. Must be able to lift up to 50 pounds.	Participate in laboratory assignments. The ability to bend, stretch, twist or reach with your body, arms and/or legs. The ability to coordinate the movement of your arms, legs and torso together when the whole body is in motion. The ability to keep or regain your body balance or stay upright when in an unstable position. The ability to exert muscle force to lift, push, pull or carry objects.

Auditory Skills	The ability to recognize and interpret auditory signals or sounds.	Must be able to discern audible equipment alarms and tones. The ability to detect or tell the differences between sounds that may signify a equipment failure or an unsafe condition. The ability to tell the direction from which a sound originated. The ability to focus on a single source of sound in the presence of other distracting sounds. Must be able to hear instructions in an industrial environment. The ability to identify and understand the speech of another person.
Visual Skills	Visual ability is sufficient for observation and assessment necessary in the classroom, lab and other locations on the campus. Reading prints, schematics, charts and spreadsheets (written or on a computer monitor). Must be able to respond to visual displays on industrial equipment.	See and respond to warning light(s) of different colors. Read information on a computer monitor, TV or other screen devices (ex. touchscreen or teach pendant). The ability to determine relative distances using depth perception. The ability to recognize defects and/or minor damage in equipment and/or industrial systems. The ability to match or detect differences between colors, including shades of color and brightness.
Tactile Skills	The ability to physically manipulate common devices, tools or equipment.	Use hand tools needed to complete labs or projects. The ability to quickly and repeatedly adjust the controls of a machine to exact positions. The ability to make precisely coordinated movements to manipulate or assemble very small objects. The ability to coordinate two or more limbs while sitting, standing or lying down (like installing a device while laying on the floor). The ability to coordinate and time movements to match other moving objects, like grasping a moving part. The ability to quickly respond (with motions) to a signal (sound, light, picture) when it appears. The ability to make fast, simple, repeated movements of the fingers, hands and wrists.

Environmental	Must be able to function safely under varying environmental conditions. Must be able to wear lab-specific Personal Protective Equipment (PPE).	Appropriately wear safety PPE such as, but not limited to: safety glasses, face shields, gloves, fire resistant clothing, protective footwear and hearing protection. Tolerate course activities in an industrial lab with equipment noise and operating equipment. The ability to safely adapt to extreme temperature ranges. The ability to safely manage operations at various heights.
Emotional/ Behavioral	The ability to maintain composure in a stressful situation, and to maintain accountability for ones own actions.	Must be alert and attentive during class and laboratory activities. Must be able to work on multiple projects while adhering to deadlines. The ability to work within a team environment. The ability to concentrate on a task over a period of time without being distracted. The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch or other sources. The ability to give and accept constructive criticism. The ability to demonstrate punctuality.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship or produce a direct threat to the safety of the patient or student.

Solar Energy and Electrical Construction

SOL/ELC TECHNICAL STANDARDS

All students in the Solar Technology and/or Electrical Constructionprograms are expected to meet certain technical standards that are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Standard	Definition of Standard	Example

Critical Thinking/Problem-Solving Skills	Show the ability to complete classroom and lab coursework that simulates real-world problems.	• Show the ability to diagnose problems by using a meter or tools for specific applications. • Utilize theory and trade practices to maintain the functionality of the equipment. • Apply technical knowledge of the problem to the current situation or problem.
Interpersonal Skills	Abilities are sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Be able to work alone or in a group and stay focused on the current task. • Demonstrate time management skills. • Communicate information with accuracy and respect.
Communication Skills	Abilities sufficient for writing, reading and comprehending directions or instructions in the class or lab.	• Read a service manual and comprehend the information. • Complete course lab assignments and explain corrective actions in written and verbal formats. • Comprehend/follow written and verbal instructions.
Coping Skills	Abilities are sufficient to be productive in a classroom or lab environment.	• Be able to meet deadlines. • Be able to deal with critiques/criticism. • Maintain composure under stressful situations. • Maintain professionalism at all times.
Mobility/Motor Skills	Must possess the ability to lift, stand, stretch, squat and crawl or contort to any position as required by the repair situation. All positions listed above will be encountered in the class, lab or a work-based learning setting on a consistent basis.	• Navigate around objects or obstacles on the floor or overhead. • Lift a minimum of 50 lbs. to chest level from the floor level. • Be able to work on stationary equipment that requires reaching, bending and potentially prone positions for up to 60 minutes. • Be able to move about the work area in various outside working conditions. • Be able to work in confining or tight spaces. • Operate hand and/or power tools continually. • Be able to complete physical course lab assignments for up to 90 minutes without sitting.
Auditory Skills	Auditory abilities are sufficient to work safely in an industry environment, class or lab.	• Detect sounds such as unusual noises in outdoor and indoor Plumbing equipment. • Detect sounds being emitted from the motors, lifts and heavy equipment. • Be able to hear verbal instructions, because line of sight is not always possible.

Visual Skills	Visual skills adequate to safely work in a class or lab with industrial equipment.	- Interpret information from diagrams, labs and test equipment. - Able to see in low or poor lighting conditions such as crawl spaces and attics. - Perceive different depths and dimensions.
Tactile Skills	Tactile skills adequate for work in a class or lab with industrial equipment.	Be able to determine hot or cold temperatures by the sense of touch.
Emotional/Behavioral	Emotional/Behavior skills are adequate to maintain composure in a stressful environment.	- Demonstrate flexibility to calmly change course while addressing a technical problem. - Follow the directions of an instructor, supervisor, or lead technician. - Demonstrate professionalism, integrity, and honesty. - Cope with stress and other factors while troubleshooting technical problems both individually and as part of a group.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the client or student.

Surgical Technology

SRT TECHNICAL STANDARDS

All students in the Surgical Technology program are expected to meet certain technical standards that are essential for the successful completion of all phases of the program and that reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability is sufficient for clinical judgment.	- Identify cause-effect relationships - Plan/control activities (organizational skills) - Anticipation of a surgical sequence of events. - Ability to make decisions quickly. - Ability to respond to the appropriate surgical need in emergency situations. - Collect data, prioritize needs, and anticipate reactions.

Interpersonal Skills	Abilities are sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, and intellectual backgrounds.	• Establish rapport with clients, instructors, staff, colleagues and groups. • Employ appropriate ethical, professional and respectful values while providing care to diverse populations within the healthcare system. • Exhibit ethical behavior and exercise good judgment.
Communication Skills	Abilities are sufficient for interaction with others in verbal and written form.	• Ability to enunciate clearly with all surgical personnel. • Ability to comprehend surgical team directives. • Ability to communicate information and ideas in speaking so others will understand. • Read, write, comprehend, and speak the English language to facilitate communication with instructors, patients and their family members, and other health care professionals.
Coping Skills	Ability to cope with stressful situations. Possess coping skills sufficient to maintain composure in stressful situations.	• Adapt rapidly to changing environments and/or stress. • Ability to maintain emotional composure. • Ability to perform despite the difficulty of the situation at hand.
Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction.	• Ability to lift and carry up to 50 pounds. • Ability to maintain a minimum of 18 inches from furniture and non-sterile personnel in confined spaces. • Able to move around without assistive devices. • Able to assist with and/or lift, move, position, and manipulate a patient who is unconscious with/without assistive devices. • Ability to load and pass sharps (scalpel, suture, needles) and power tools to another individual without causing injury to oneself or others. • Ability to stand or sit for prolonged periods of time, without breaks during surgical procedures (4-6 hours or longer). • Be able to refrain from nourishment or restroom breaks for prolonged periods of time (4-6 hours or longer).
Auditory Skills	Auditory abilities are sufficient to monitor and assess the needs of the surgical team and the patient.	• The ability to focus on a single source of sound in the presence of other distracting sounds. • Ability to hear a muted or low-pitched conversation from several feet away.

Visual Skills	Visual ability sufficient for observation and assessment necessary in perioperative care.	• Ability to prepare and implement perioperative care. • Demonstrate sufficient visual acuity to differentiate between suture strands, and suture needle tips, track needles smaller than an eyelash, discern increments on hypodermic syringes for medication handling and management, and visualize hand signals. • Demonstrate sufficient peripheral vision to anticipate and function while in the sterile surgical environment.
Tactile Skills	Tactile ability is sufficient for physical assessment.	• Differentiate between monofilament and multifilament suture strands, and tissue types, and sense potential nicks from sharps through surgical gloves. • Manipulate instruments, supplies, and equipment with speed, dexterity, and good eye-hand coordination.
Olfactory Skills	Olfactory ability sufficient to detect significant environmental and client odors.	• Be able to detect odors sufficient to maintain environmental safety and patient needs and to tolerate various odors.
Environmental	Possess the ability to tolerate environmental stressors.	• Safely work with potentially harmful chemicals used in health care settings. • Practice standard precautions in the clinical setting. • Anticipate exposure to communicable diseases, body fluids, unpleasant sights/odors, and toxic substances.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	• Ability to assess a situation rationally and respond accordingly. • Ability to accept constructive criticism and show behavioral change. • Demonstrate honesty and integrity beyond reproach.

Vocational Nursing

LVN TECHNICAL STANDARDS

Nursing programs have established technical standards to ensure that students have the abilities required to function in the classroom, lab and clinical environment. These standards are essential for the successful completion of all phases of the program which reflect industry requirements and standards.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem-Solving Skills	Ability is sufficient for sound nursing judgment. Reasoning skills sufficient to perform deductive/inductive thinking for nursing decisions.	• Evaluate client or instrument responses, synthesize data and draw sound conclusions. • Collect data, prioritize needs and anticipate reactions. • Identify cause-effect relationships in clinical situations. • Transfer knowledge from one situation to another.
Interpersonal Skills	Abilities are sufficient to interact with individuals, families and groups from a variety of social, emotional, cultural and intellectual backgrounds.	• Establish rapport with clients, instructors, staff, colleagues and groups. • Respect and care for clients whose appearance, condition, beliefs and values may conflict with your own. • Deliver nursing care regardless of the client's race, ethnicity, age, gender, religion, sexual orientation or diagnosis. • Establish and maintain therapeutic boundaries. • Exhibit ethical behavior and exercise good judgment.
Communication Skills	Abilities are sufficient for interaction with others in verbal and written form.	• Document and interpret actions and client responses in a clear, professional and timely manner. • Convey information to clients and others as necessary to teach and direct in an accurate, effective and timely manner. • Recognize and report critical client information to other caregivers. • Read, write, comprehend and speak the English language to facilitate communication with instructors, clients and their family members, and other health care professionals.
Coping Skills	Possess coping skills sufficient to maintain composure in stressful situations.	• Adapt rapidly to changing environments and/or stress.
Mobility/Motor Skills	Gross and fine motor abilities are sufficient to provide safe and effective nursing care and emergency treatment.	• Move around in work and treatment areas. • Administer cardiopulmonary resuscitation. • Stand and/or walk up to 12 hours per day with or without breaks. • Calibrate and use the equipment. • Reposition immobile clients. • Push/pull 100 lbs. or greater. • Lift/move heavy objects up to 50 lbs. • Pinch/pick or otherwise work with fingers.

Auditory Skills	Auditory abilities are sufficient to monitor and assess health needs.	- Hear internal body sounds with the use of a stethoscope. - Hear auditory alarms (monitors, fire alarms, call bells). - Hear cries for help.
Visual Skills	Visual ability sufficient for observation and assessment necessary in nursing.	- Observe client responses, see a change in skin color, and read calibrations on a syringe. - See objects up to 20 feet away. - Read electronic medical records and/or associated paper medical records.
Tactile Skills	Tactile ability is sufficient for physical assessment.	Perform functions of the physical assessment and/or those related to therapeutic intervention (e.g. insertion of a catheter, palpation of pulse, detecting temperature changes).
Olfactory Skills	Olfactory ability sufficient to detect significant environmental and client odors.	Detect odors from clients.
Environmental	Possess the ability to tolerate environmental stressors.	- Safely work with potentially harmful chemicals used in health care settings. - Practice standard precautions in the clinical setting. - Work in areas that are close, crowded and/or noisy. - Anticipate exposure to communicable diseases, body fluids and toxic substances.
Emotional/Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	- Calmly receive feedback. - Demonstrate honesty and integrity beyond reproach.

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless doing so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the client or student.

Additional Admission Requirements for LVN Program:

- Driver's license or valid identification card
- A physical will be required from your physician stating you are able to meet the standards listed here.
- Health insurance
- Clear drug screen
- Current program required vaccinations
- Clearance from Texas Board of Nursing (background check and/or fingerprinting as indicated by the Board of Nursing)

Welding Technology

WLT TECHNICAL STANDARDS

All students in the Welding Technology degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate

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the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Critical Thinking/Problem Solving Skills	Ability is sufficient to apply welding principles and practices to address technical problems and challenges in class and labs with industrial equipment. Understand welding and technical documents and interpret the data to solve problems.	The ability to choose the right mathematical methods or formulas to solve a problem. The ability to add, subtract, multiply or divide quickly and correctly. The ability to remember information, such as words, numbers, pictures and procedures. 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). The ability to generate or use different sets of rules for combining or grouping things in different ways. 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. 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. The ability to apply general rules to specific problems to produce answers that make sense. The ability to combine pieces of information to form general rules or conclusions. The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
Interpersonal Skills	Abilities are sufficient to interact with individuals and groups from a variety of social, emotional, cultural and intellectual backgrounds. Must be able to effectively work in teams or groups.	The ability to work in a self-sufficient and self-directed manner. The ability to work in a team or group setting with students of different backgrounds, ethnicity or gender. The ability to work in a diverse team or group of co-workers.

Communication Skills	Abilities are sufficient for interaction with others in verbal and written form. Effectively communicate using oral and written technical documents. Must be able to read equipment instructions and machine controls in English.	Read technical specifications. Read and understand machine labels, controls and instruction material. The ability to listen to and understand information and ideas presented through spoken words and sentences. The ability to communicate information and ideas in speaking so others will understand. The ability to speak clearly so others can understand you. The ability to read and understand information and ideas presented in writing. The ability to communicate information and ideas in writing so others will understand.
Coping Skills	Abilities are sufficient to be productive in a classroom, lab or industrial atmosphere.	Must be able to adapt to different teaching modalities, lab settings or classroom environments. The ability to work individually or in a group. The ability to know your location in relation to the environment or to know where other objects are in relation to you.
Mobility/Motor Skills	Physical abilities are sufficient to move in one's environment with ease and without restriction. Must be able to lift up to 50 pounds. Must be able to operate electrical/mechanical controls.	Participate in laboratory assignments. The ability to quickly and repeatedly bend, stretch, twist or reach out with your body, arms and/or legs. The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue. The ability to coordinate the movement of your arms, legs and torso together when the whole body is in motion. The ability to keep or regain your body balance or stay upright when in an unstable position. The ability to exert muscle force to lift, push, pull or carry objects. 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.

Auditory Skills	Auditory abilities are sufficient to work effectively and safely. Must be able to respond to audible indicators and discern potentially hazardous noises from industrial personnel and equipment.	Must be able to discern audible equipment alarms and tones. The ability to detect or tell the differences between sounds that vary in pitch and volume. The ability to tell the direction from which a sound originated. The ability to focus on a single source of sound in the presence of other distracting sounds. Must be able to hear instructions from faculty in a welding environment. The ability to identify and understand the speech of another person.
Visual Skills	Visual ability is sufficient for observation and assessment necessary in the classroom, lab and other locations on the campus. Reading prints, schematics, charts and spreadsheets (written or on a computer monitor). Must be able to respond to visual displays on industrial equipment.	See and respond to warning light(s). Read information on a computer monitor, TV or other screen devices (ex. touchscreen or teach pendant). 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. The ability to see details at a distance. The ability to see objects in the presence of glare or bright lighting. The ability to see details at close range (within a few feet of the observer). The ability to see under low light conditions. The ability to see objects or movement of objects to one's side when the eyes are looking ahead. The ability to match or detect differences between colors, including shades of color and brightness.

Tactile Skills	Tactile skills adequate for work in a classroom or lab with industrial equipment. Have appropriate dexterity to use common industry hand tools and equipment.	Use hand tools needed to complete labs or projects. The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position. The ability to quickly and repeatedly adjust the controls of a machine to exact positions. The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate or assemble very small objects. The ability to quickly move your hand, your hand together with your arm or your two hands to grasp, manipulate or assemble objects. 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. 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. The ability to quickly respond (with the hand, finger or foot) to a signal (sound, light, picture) when it appears. 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. The ability to quickly move the arms and legs. The ability to make fast, simple, repeated movements of the fingers, hands and wrists.
Environmental	Must be able to function safely under varying environmental conditions. Must be able to wear lab-specific Personal Protective Equipment (PPE).	Appropriately wear safety PPE such as, but not limited to: safety glasses, face shields, gloves, fire resistant clothing, welding hood and hearing protection. Tolerate course activities in an industrial lab with equipment noise and operating equipment. Tolerate extreme temperature ranges. The ability to manage operations at various heights.

		Must be alert and attentive during class and laboratory activities.
Emotional/ Behavioral	Possess emotional stability sufficient to maintain composure in stressful situations and assume responsibility/accountability for actions.	Must be able to work on multiple projects while adhering to deadlines.
		The ability to fit in and work with a team when required.
		The ability to concentrate on a task over a period of time without being distracted.
		The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch or other sources).
		The ability to accept constructive criticism.
		The ability to demonstrate punctuality.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Wind Energy Technology

WET STANDARDS

All students in the Welding Technology degree program are expected to meet certain technical standards which are essential for the successful completion of all phases of the program, and which reflect industry requirements and standards. To verify the student's ability to perform these essential functions, students may be required to demonstrate the technical standards below.

Meeting these technical standards does not guarantee employment in this field upon graduation. The ability to meet the program's technical standards does not guarantee a student's eligibility for any certification exams or successful completion of the program.

Technical Standard	Definition of Standards	Examples
Category Flexibility	The ability to generate or use different sets of rules for combining or grouping things in different ways.	• Ability to use different formulas to solve complex problems.
Deductive Reasoning	The ability to apply general rules to specific problems to produce answers that make sense.	• Ability to deduce the problem in a complex circuit.
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.	• Ability to troubleshoot complex formulas.

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).	• Ability to look at situations from different angles to form multiple ideas about a topic.
Inductive Reasoning	The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).	• The ability to find 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.	• Ability to use different formulas to solve complex problems.
Memorization	The ability to remember information, such as words, numbers, pictures and procedures.	• Ability to remember words, numbers, pictures and procedures.
Number Facility	The ability to add, subtract, multiply or divide quickly and correctly.	• The ability to calculate electrical current, resistance, and capacity.
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.	• The ability to follow instruction and directions.
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.	• The ability to communicate effectively in all situations.
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.	• The ability to "think outside the box" to solve problems.
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.	• The ability to read numbers and letters on components to distinguish similarities and differences.
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.	• The ability to tell when there is an issue with a running turbine before it becomes faulted.

Selective Attention	The ability to concentrate on a task over a period of time without being distracted.	• The ability to concentrate through distractions such as weather temperature, noise, and discussions around you.
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).	• The ability to troubleshoot a panel using vocal and tactile abilities simultaniously.
Visualization	The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.	• The ability to remove components from a circuit and replace them into the same places.
Written Comprehension	The ability to read and understand information and ideas presented in writing.	• The ability to read a procedure and follow it.
Written Expression	The ability to communicate information and ideas in writing so others will understand.	• The ability to log information on what work has taken place in a given day for future assessment.
Auditory Attention	The ability to focus on a single source of sound in the presence of other distracting sounds.	• Ability to hear different frequencies from high to low.
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.	• Ability to judge distance.
Far Vision	The ability to see details at a distance.	• Ability to judge distance.
Glare Sensitivity	The ability to see objects in the presence of glare or bright lighting.	• The ability to see objects while working outside a turbine in the sunshine.
Hearing Sensitivity	The ability to detect or tell the differences between sounds that vary in pitch and loudness.	• The ability to decipher sounds coming from a running turbine that could mean something is broken.
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.	• Ability to see in low light.
Peripheral Vision	The ability to see objects or movement of objects to one's side when the eyes are looking ahead.	• The ability to see objects in peripheral vision while working directly in front of you.
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.	
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.	• Ability to hold small or large tools for extended periods of time.
Control Precision	The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.	• Ability to remove or insert small wires or screws into circuit boards without disturbing other equipment.
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.	• Ability to repeatedly insert and remove small pieces of equipment with screwdrivers, etc.
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.	• The ability to work in small spaces in the nacelle or hub of a turbine that may require sitting, or lying down to reach the work area.
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.	• Ability to stand on uneven surfaces for extended periods while working in cabinets.
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.	• The ability to use a screwdriver to remove or replace bolts and screws on components.
Dynamic Flexibility	The ability to quickly and repeatedly bend, stretch, twist or reach out with your body, arms and/or legs.	• The ability to move equipment from the yaw deck of a turbine up into the nacelle, or vice versa.
Dynamic Strength	The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.	• The ability to move equipment from the yaw deck of a turbine up into the nacelle, or vice versa.
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.	• The ability to ascend or descend a turbine by ladder.
Gross Body Equilibrium	The ability to keep or regain your body balance or stay upright when in an unstable position.	• The ability to stay upright when the wind is swaying a turbine.
Stamina	The ability to exert yourself physically over long periods of time without getting winded or out of breath.	• The ability to ascend or descend a turbine by ladder.
Static Strength	The ability to exert maximum muscle force to lift, push, pull or carry objects.	• The ability to move equipment from the yaw deck of a turbine up into the nacelle, or vice versa. •
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.	

Program Areas

Academic Core Curriculum

Description

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 Curriculum - General Academic - Core Curriculum Completion

Locations

Harlingen

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGL1301 - Composition I (3)
    - GOVT2305 - Federal Government (Federal constitution & topics) (3)
    - ACGM3CAR - Creative Arts Elective (3)
    - ACGM3CAOB - Component Area Option   (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGL1302 - Composition II (3)
    - GOVT2306 - Texas Government (Texas constitution & topics) (3)
    - HIST1301 - United States History I (3)
    - ACGM3LPS - Life and Physical Science Elective (3)
    - ACGM3CAOA - Component Area Option A (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - ACGM3LPS - Life and Physical Science Elective (3)
    - HIST1302 - United States History II (3)
    - ACGM3MTH - Gen Ed Mathematics Elective (3)
    - ACGM3LPC - Language, Philosophy and Culture Elective (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **42**

Pre/Corequisites

- ENGL 1302 Prerequisite(s): ENGL 1301

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Creative Arts Elective
    - ARTS1301 - Art Appreciation (3)
    - MUSI1306 - Music Appreciation (3)
- Complete at least 1 courses from the following:

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Component Area Option B (for Academic Core Curriculum)
- SPCH1311 - Introduction to Speech Communication(3)
- SPCH1315 - Public Speaking (3)
- SPCH1318 - Interpersonal Communication (3)
- SPCH1321 - Business & Professional Communication(3)

- Complete at least 2 courses from the following:

keyboard_arrow_up

Life & Physical Science Elective
- BIOL1306 - Biology for Science Majors I (lecture)(3)
- BIOL1307 - Biology for Science Majors II(3)
- BIOL1308 - Biology for Non-Science Majors I(3)
- BIOL1309 - Biology for Non-Science Majors II(3)
- BIOL2301 - Anatomy & Physiology I (lecture)(3)
- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1312 - General Chemistry II (lecture)(3)
- PHYS1301 - College Physics I (lecture)(3)
- PHYS1302 - College Physics II (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1317 - Physical Science II(3)

- Complete at least 1 courses from the following:

keyboard_arrow_up

Component Area Option A (for Academic Core Curriculum)
- BIOL1106 - Biology for Science Majors Laboratory I (lab)(1)
- BIOL1107 - Biology for Science Majors II Lab(1)
- BIOL1108 - Biology Non-Science Majors Laboratory I(1)
- BIOL1109 - Biology for Non-Science Majors II Lab(1)
- BIOL2101 - Anatomy & Physiology I (lab)(1)
- BIOL2102 - Anatomy & Physiology II (lab)(1)
- CHEM1111 - General Chemistry I (lab)(1)
- CHEM1112 - General Chemistry II (lab)(1)
- ENGL2321 - British Literature(3)
- ENGL2326 - American Literature (single-Semester Course)(3)
- ENGL2331 - World Literature(3)
- PHYS1101 - College Physics Laboratory I(1)
- PHYS1102 - College Physics Lab II(1)
- PHYS1115 - Physical Science Lab I(1)
- PHYS1117 - Physical Science Lab II(1)
- PSYC2314 - Lifespan Growth & Development(3)

- Complete at least 1 courses from the following:

keyboard_arrow_up

Mathematics Elective (for Academic Core)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH2312 - Pre-Calculus Math (3 SCH version)(3)

- Complete at least 1 courses from the following:

keyboard_arrow_up

Language, Philosophy & Culture Elective
- ENGL2321 - British Literature(3)
- ENGL2326 - American Literature (single-Semester Course)(3)
- ENGL2331 - World Literature(3)
- PHIL1304 - Introduction to World Religions(3)

- Complete at least 1 courses from the following:

keyboard_arrow_up

Social/Behavioral Science Elective (for Academic Core Majors)
- ECON2301 - Principles of Macroeconomics(3)
- ECON2302 - Principles of Microeconomics (3)
- PSYC2301 - General Psychology(3)
- PSYC2314 - Lifespan Growth & Development(3)
- SOCI1301 - Introduction to Sociology (3)

- Complete all courses from the following:

keyboard_arrow_up

Communication (for Academic Core)
- ENGL1301 - Composition I(3)
- ENGL1302 - Composition II(3)

- Complete all courses from the following:

keyboard_arrow_up
Government/Political Science
- ■ GOVT2305 - Federal Government (Federal constitution & topics)(3)
- ■ GOVT2306 - Texas Government (Texas constitution & topics)(3)
- Complete all courses from the following:
keyboard_arrow_up
American History
  - ■ HIST1301 - United States History I(3)
  - ■ HIST1302 - United States History II(3)

Advanced Manufacturing

Description

Today's manufacturing industry is very different from the dirty, loud and unwelcoming factories of the past. These new companies and their manufacturing facilities are advancing in technology at a fast rate of speed. Our industry partners have recognized these advances and the need for skills as applied to Advanced Manufacturing Technology. The Advanced Manufacturing Technology (AMT) program is designed by industry experts and employers to address the industry's need for qualified technicians.

Aircraft Airframe Technology

Description

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 - Aviation Maintenance Technology - Airframe AAS

Locations

Waco
Harlingen
Abilene

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete at least 3 credits from the following:
    - AERM1107 - Aviation Mathematics (1)
    - AERM1109 - Aviation Physics (1)
    - AERM1112 - Aviation Drawings (1)
    - AERM1315 - Aviation Science (3)
  - Complete the following:
    - AERM1203 - Shop Practices (2)
    - AERM1205 - Weight and Balance (2)
    - AERM1208 - Federal Aviation Regulations (2)
    - AERM1210 - Ground Operations (2)
    - AERM1414 - Basic Electricity (4)

Semester 2
16 Total Credits
keyboard_arrow_up

- Complete the following:
  - AERM1347 - Airframe Auxiliary Systems (3)
  - AERM1345 - Airframe Electrical Systems (3)
  - AERM1350 - Landing Gear Systems (3)
  - AERM1449 - Hydraulic, Pneumatic, and Fuel Systems (4)
  - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete the following:
  - AERM1241 - Wood, Fabric, and Finishes (2)
  - AERM1243 - Instruments and Navigation/Communication (2)
  - AERM1153 - Aircraft Welding (1)
  - AERM1254 - Aircraft Composites (2)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 4
16 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - AERM1352 - Aircraft Sheet Metal (3)
    - AERM2230 - FAA Review - Airframe (2)
    - AERM2231 - Airframe Inspection (2)
    - AERM2333 - Assembly and Rigging (3)
    - ACGM3GED - Gen Ed Elective (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - AERM2230 - FAA Review - Airframe (2)

Pre/Corequisites

- AERM 1347 Prerequisite(s): (AERM 1109 or AERM 1315) and (AERM 1314 or AERM 1414)
- AERM 1345, AERM 1243 Prerequisite(s): AERM 1314 or AERM 1414
- AERM 1350 Prerequisite(s): (AERM 1203, AERM 1315) or (AERM 1203, AERM 1109)
- AERM 1449, AERM 2333 Prerequisite(s): AERM 1109 or AERM 1315
- AERM 1153 Prerequisite(s): AERM 1203
- AERM 1352 Prerequisite(s): (AERM 1107, AERM 1112, AERM 1203) or (AERM 1315, AERM 1203)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete 1 General Education Elective as recommended by program

Aircraft Airframe Technology - Aviation Maintenance Technology - Airframe CER1

Locations

Waco
Harlingen
Abilene

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 3 credits from the following:
        - AERM1107 - Aviation Mathematics (1)
        - AERM1109 - Aviation Physics (1)
        - AERM1112 - Aviation Drawings (1)
        - AERM1315 - Aviation Science (3)
    - Complete the following:
        - AERM1203 - Shop Practices (2)
        - AERM1205 - Weight and Balance (2)
        - AERM1208 - Federal Aviation Regulations (2)
        - AERM1210 - Ground Operations (2)
        - AERM1414 - Basic Electricity (4)

Degree Plan Credits **15**

Capstone

- Complete the following:
    - AERM1414 - Basic Electricity (4)

Aircraft Airframe Technology - Aviation Maintenance Technology - Airframe CER2

Locations

Waco
Harlingen
Abilene

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete at least 3 credits from the following:
    - AERM1107 - Aviation Mathematics (1)
    - AERM1109 - Aviation Physics (1)
    - AERM1112 - Aviation Drawings (1)
    - AERM1315 - Aviation Science (3)
  - Complete the following:
    - AERM1203 - Shop Practices (2)
    - AERM1205 - Weight and Balance (2)
    - AERM1208 - Federal Aviation Regulations (2)
    - AERM1210 - Ground Operations (2)
    - AERM1414 - Basic Electricity (4)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
  - AERM1347 - Airframe Auxiliary Systems (3)
  - AERM1345 - Airframe Electrical Systems (3)
  - AERM1350 - Landing Gear Systems (3)
  - AERM1449 - Hydraulic, Pneumatic, and Fuel Systems (4)

Semester 3
7 Total Credits
keyboard_arrow_up

- Complete the following:
  - AERM1241 - Wood, Fabric, and Finishes (2)
  - AERM1243 - Instruments and Navigation/Communication (2)
  - AERM1153 - Aircraft Welding (1)
  - AERM1254 - Aircraft Composites (2)

Semester 4
10 Total Credits
keyboard_arrow_up

- Complete the following:
  - AERM1352 - Aircraft Sheet Metal (3)
  - AERM2230 - FAA Review - Airframe (2)
  - AERM2231 - Airframe Inspection (2)
  - AERM2333 - Assembly and Rigging (3)

Degree Plan Credits **45**

Capstone

- Complete the following:
  - AERM2230 - FAA Review - Airframe (2)

Pre/Corequisites

- AERM 1347 Prerequisite(s): (AERM 1109 OR AERM 1315) AND (AERM 1314 OR AERM 1414)
- AERM 1345, AERM 1243 Prerequisite(s): AERM 1314 OR AERM 1414
- AERM 1350 Prerequisite(s): (AERM 1203, AERM 1315) OR (AERM 1203, AERM 1109)
- AERM 1449, AERM 2333 Prerequisite(s): AERM 1109 or AERM 1315
- AERM 1352 Prerequisite(s): (AERM 1107, AERM 1112, AERM 1203) or (AERM 1315, AERM 1203)

Aircraft Pilot Training Technology

Description

With aviation experience dating back more than 55 years, TSTC has been a proud provider of professional pilots throughout the aviation industry. Our students get a 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 this 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 Technology - Aircraft Pilot Training Technology - Airplane AAS

Locations

Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AIRP1215 - Private Flight (2)
    - AIRP1301 - Air Navigation (3)
    - AIRP1307 - Aviation Meteorology (3)
    - AIRP1417 - Private Pilot Ground School (4)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AIRP1343 - Aerodynamics (3)
    - AIRP1451 - Instrument Ground School (4)
    - AIRP2250 - Instrument Flight (2)
    - ACGM3MTH - Gen Ed Mathematics Elective (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - AIRP2355 - Propulsion Systems (3)
        - AIRP1275 - Aviation Safety (2)
        - AIRP1175 - Intermediate Flight (1)
        - ACGM3GED - Gen Ed Elective (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AIRP2357 - Turbine Aircraft Systems Ground School (3)
    - AIRP2337 - Commercial Ground School (3)
    - AIRP2339 - Commercial Flight (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 2 credits from the following:
        - AIRP2236 - Certified Flight Instructor - Flight (2)
        - AIRP2251 - Multiengine Flight (2)
    - Complete at least 3 credits from the following:
        - AIRP2337 - Commercial Ground School (3)
        - AIRP1313 - Introduction to Aviation (3)
    - Complete the following:
        - AIRP2449 - Instructor Ground School (4)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - AIRP2449 - Instructor Ground School (4)

Pre/Corequisites

- AIRP 1175, AIRP 2250 Prerequisite(s): AIRP 1215
- AIRP 2239 Prerequisite(s): AIRP 2250
- AIRP 2236, AIRP 2251 Prerequisite(s): AIRP 2239

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Mathematics Elective
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1325 - Calculus for Business & Social Sciences(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - MATH1350 - Math - Teachers I Fundamentals of Math I(3)
    - MATH1351 - Fundamentals of Mathematics II(3)
    - MATH2312 - Pre-Calculus Math (3 SCH version)(3)
    - MATH2313 - Calculus I(3)
    - MATH2318 - Linear Algebra(3)
    - MATH2320 - Differential Equations (3 SCH version)(3)
    - MATH2342 - Elementary Statistical Methods(3)
    - MATH2313 - Calculus I(3)
    - MATH2414 - Calculus II (4 SCH version)(4)
    - MATH2415 - Calculus III (4 SCH version)(4)
- Complete 1 General Education Elective as recommended by program
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)

Aircraft Pilot Training Technology - Aircraft Pilot Training Technology - Unmanned Aerial Vehicle CER1

<u>**Locations**</u>

Waco

<u>**Program Requirements**</u>

Semester 1
18 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - AIRP1301 - Air Navigation (3)
        - AIRP1307 - Aviation Meteorology (3)
        - AIRP1417 - Private Pilot Ground School (4)
        - AIRP1275 - Aviation Safety (2)
        - AVIM1391 - Special Topics in Aviation Management (3)
    - Complete at least 3 credits from the following:
        - MRKG1301 - Customer Relationship Management (3)
        - AIRP1313 - Introduction to Aviation (3)

Degree Plan Credits **18**

<u>**Capstone**</u>

- Complete the following:
    - AVIM1391 - Special Topics in Aviation Management (3)

Aircraft Powerplant Technology

<u>**Description**</u>

Aircraft Powerplant Technology students learn basic aviation knowledge, shop practices, aircraft engines and electrical, troubleshooting and overhaul. Graduates from this program can seek positions in engine maintenance, contract maintenance, general aviation operations and regional and national airline technicians specializing in powerplant accessories, components and reciprocating and turbine engine technology. For quicker entry into the industry, an Aircraft Powerplant Technology certificate is available.

Aircraft Powerplant Technology - Aviation Maintenance Technology - Powerplant AAS

<u>**Locations**</u>

Waco
Harlingen
Abilene

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 3 credits from the following:
        - AERM1107 - Aviation Mathematics (1)
        - AERM1109 - Aviation Physics (1)
        - AERM1112 - Aviation Drawings (1)
        - AERM1315 - Aviation Science (3)
    - Complete the following:
        - AERM1203 - Shop Practices (2)
        - AERM1205 - Weight and Balance (2)
        - AERM1208 - Federal Aviation Regulations (2)
        - AERM1210 - Ground Operations (2)
        - AERM1414 - Basic Electricity (4)

Semester 2
16 Total Credits
keyboard_arrow_up

- Complete the following:
    - AERM1351 - Aircraft Turbine Engine Theory (3)
    - AERM1357 - Fuel Metering and Induction Systems (3)
    - AERM1444 - Aircraft Reciprocating Engines (4)
    - AERM1356 - Aircraft Powerplant Electrical (3)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 3
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - AERM1240 - Aircraft Propellers (2)
    - AERM2341 - Powerplant and Auxiliary Power Units (3)
    - AERM2351 - Aircraft Turbine Engine Overhaul (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 4
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - AERM2234 - FAA Review - Powerplant (2)
        - AERM2352 - Aircraft Powerplant Inspection (3)
        - AERM2447 - Aircraft Reciprocating Engine Overhaul (4)
        - ACGM3GED - Gen Ed Elective (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - AERM2234 - FAA Review - Powerplant (2)

Pre/Corequisites

- AERM 1351, AERM 1357, AERM 1444, AERM 1240, AERM 2341 Prerequisite(s): AERM 1109 or AERM 1315
- AERM 1356 Prerequisite(s): AERM 1314 or AERM 1414
- AERM 2351 Prerequisite(s): AERM 1351
- AERM 2447 Prerequisite(s): AERM 1444

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete 1 General Education Elective as recommended by program

Aircraft Powerplant Technology - Aviation Maintenance Technology - Powerplant CER2

<u>Locations</u>

Waco
Harlingen
Abilene

<u>Program Requirements</u>

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete at least 3 credits from the following:
    - AERM1107 - Aviation Mathematics (1)
    - AERM1109 - Aviation Physics (1)
    - AERM1112 - Aviation Drawings (1)
    - AERM1315 - Aviation Science (3)
  - Complete the following:
    - AERM1203 - Shop Practices (2)
    - AERM1205 - Weight and Balance (2)
    - AERM1208 - Federal Aviation Regulations (2)
    - AERM1210 - Ground Operations (2)
    - AERM1414 - Basic Electricity (4)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
  - AERM1351 - Aircraft Turbine Engine Theory (3)
  - AERM1357 - Fuel Metering and Induction Systems (3)
  - AERM1444 - Aircraft Reciprocating Engines (4)
  - AERM1356 - Aircraft Powerplant Electrical (3)

Semester 3
8 Total Credits
keyboard_arrow_up

- Complete the following:
  - AERM1240 - Aircraft Propellers (2)
  - AERM2341 - Powerplant and Auxiliary Power Units (3)
  - AERM2351 - Aircraft Turbine Engine Overhaul (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - AERM2234 - FAA Review - Powerplant (2)
  - AERM2352 - Aircraft Powerplant Inspection (3)
  - AERM2447 - Aircraft Reciprocating Engine Overhaul (4)

Degree Plan Credits **45**

<u>Capstone</u>

- Complete the following:
  - AERM2234 - FAA Review - Powerplant (2)

<u>Pre/Corequisites</u>

- AERM 1351, AERM 1357, AERM 1444, AERM 1240, AERM 2341 Prerequisite(s): AERM 1109 or AERM 1315
- AERM 1356 Prerequisite(s): AERM 1314 or AERM 1414
- AERM 2351 Prerequisite(s): AERM 1351
- AERM 2447 Prerequisite(s): AERM 1444

Architectural & Civil Drafting Technology

Description

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 Technology - Architectural & Civil Drafting Technology AAS

Locations

Online - TSTC Connect
Waco
Harlingen
Marshall
North Texas

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - DFTG1309 - Basic Computer-Aided Drafting (3)
    - ARCE1321 - Architectural Illustration (3)
  - Complete at least 3 credits from the following:
    - DFTG1325 - Blueprint Reading and Sketching (3)
    - SRVY1341 - Land Surveying (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARCE1303 - Architectural Materials and Methods of Construction (3)
  - DFTG1317 - Architectural Drafting - Residential (3)
  - DFTG1330 - Civil Drafting 1 (3)
  - MATH1314 - College Algebra (3 SCH version) (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - DFTG2328 - Architectural Drafting - Commercial (3)
  - DFTG2321 - Topographical Drafting (3)
  - ARCE1342 - Codes, Specifications, and Contract Documents (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARCE2352 - Mechanical and Electrical Systems (3)
  - ARCE1352 - Structural Drafting (3)
  - DFTG1393 - Special Topics in Civil Drafting Civil Engineering CAD/CADD (3)
  - ACGM3SPH - Gen Ed Speech Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - DFTG2312 - Technical Illustration and Presentation (3)
    - DFTG2331 - Adv Techn-Architect Design & Drafting Design and Drafting (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
  - Complete at least 3 credits from the following:
    - DFTG1392 - Special Topics in Architectural Drafting and Architectural CAD/CADD (3)
    - DFTG2386 - Internship - Drafting and Design Technology/Technician, General (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - DFTG2331 - Adv Techn-Architect Design & Drafting Design and Drafting (3)

Pre/Corequisites

- ARCE 1303, DFTG 1330, DFTG 2386 Prerequisite(s): DFTG 1309
- DFTG 1317 Prerequisite(s): ARCE 1321
- DFTG 2328 Prerequisite(s): DFTG 1317
- DFTG 2321 Prerequisite(s): DFTG 1330
- ARCE 1342 Prerequisite(s): ARCE 1303 (Prerequisite or Corequisite)
- ARCE 2352 Prerequisite(s): DFTG 2328 (Prerequisite or Corequisite)
- ARCE 1352 Prerequisite(s): DFTG 2328
- DFTG 1393 Prerequisite(s): DFTG 2321
- DFTG 2312, DFTG 2331, DFTG 1392 Prerequisite(s): DFTG 2328

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
    - SPCH1311 - Introduction to Speech Communication (3)
    - SPCH1315 - Public Speaking (3)
    - SPCH1318 - Interpersonal Communication (3)
    - SPCH1321 - Business & Professional Communication (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics) (3)
    - GOVT2306 - Texas Government (Texas constitution & topics) (3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - HIST1301 - United States History I (3)
    - HIST1302 - United States History II (3)
    - HIST2312 - Western Civilization II (3)
    - HIST2321 - World Civilizations I (3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I (3)

Architectural & Civil Drafting Technology - Architectural & Civil Drafting Technology CER1

Locations

Online - TSTC Connect
Waco
Harlingen
Marshall
North Texas

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DFTG1309 - Basic Computer-Aided Drafting (3)
        - ARCE1321 - Architectural Illustration (3)
    - Complete at least 3 credits from the following:
        - DFTG1325 - Blueprint Reading and Sketching (3)
        - SRVY1341 - Land Surveying (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ARCE1303 - Architectural Materials and Methods of Construction (3)
    - DFTG1317 - Architectural Drafting - Residential (3)
    - DFTG1330 - Civil Drafting 1 (3)

Degree Plan Credits **18**

Capstone

- Complete the following:
    - DFTG1317 - Architectural Drafting - Residential (3)

Pre/Corequisites

- ARCE 1303, DFTG1330 Prerequisite(s): DFTG 1309
- DFTG1317 Prerequisite(s): ARCE 1321

Architectural & Civil Drafting Technology - Architectural & Civil Drafting Technology CER2

Locations

Online - TSTC Connect
Waco
Harlingen
Marshall
North Texas

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - DFTG1309 - Basic Computer-Aided Drafting (3)
    - ARCE1321 - Architectural Illustration (3)
  - Complete at least 3 credits from the following:
    - DFTG1325 - Blueprint Reading and Sketching (3)
    - SRVY1341 - Land Surveying (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARCE1303 - Architectural Materials and Methods of Construction (3)
  - DFTG1317 - Architectural Drafting - Residential (3)
  - DFTG1330 - Civil Drafting 1 (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - DFTG2328 - Architectural Drafting - Commercial (3)
  - DFTG2321 - Topographical Drafting (3)
  - ARCE1342 - Codes, Specifications, and Contract Documents (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARCE2352 - Mechanical and Electrical Systems (3)
  - ARCE1352 - Structural Drafting (3)
  - DFTG1393 - Special Topics in Civil Drafting Civil Engineering CAD/CADD (3)

Degree Plan Credits **36**

Capstone

- Complete the following:
  - ARCE1352 - Structural Drafting (3)

Pre/Corequisites

- ARCE 1303, DFTG 1330 Prerequisite(s): DFTG 1309
- DFTG 1317 Prerequisite(s): ARCE 1321
- DFTG 2328 Prerequisite(s): DFTG 1317
- DFTG 2321 Prerequisite(s): DFTG 1330
- ARCE 1342 Prerequisite(s): ARCE 1303 (Prerequisite or Corequisite)
- ARCE 2352 Prerequisite(s): DFTG 2328 (Prerequisite or Corequisite)
- ARCE 1352 Prerequisite(s): DFTG 2328
- DFTG 1393 Prerequisite(s): DFTG 2321

Architectural Design & Engineering

Description

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 identify 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 - Architectural Design & Engineering Technology - Graphics CER1

Locations

Online - TSTC Connect
Waco
Harlingen
Marshall
North Texas

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - DFTG1309 - Basic Computer-Aided Drafting (3)
  - Complete at least 3 credits from the following:
    - DFTG1345 - Parametric Modeling and Design (3)
    - ENGR1304 - Engineering Graphics I (3 Sch version) (3)
  - Complete at least 3 credits from the following:
    - SRVY1341 - Land Surveying (3)
    - DFTG1325 - Blueprint Reading and Sketching (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARCE1321 - Architectural Illustration (3)
  - DFTG1333 - Mechanical Drafting (3)
  - DFTG1330 - Civil Drafting 1 (3)

Degree Plan Credits **18**

Capstone

- Complete the following:
  - DFTG1333 - Mechanical Drafting (3)

Pre/Corequisites

- ENGR 1304 Prerequisite(s): MATH 1314
- DFTG 1333, DFTG 1330 Prerequisite(s): DFTG 1309

Architectural Design & Engineering - Architectural Design & Engineering Technology AAS

Locations

Online - TSTC Connect
Harlingen
Waco
Marshall
North Texas

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DFTG1309 - Basic Computer-Aided Drafting (3)
    - Complete at least 3 credits from the following:
        - DFTG1345 - Parametric Modeling and Design (3)
        - ENGR1304 - Engineering Graphics I (3 Sch version) (3)
    - Complete at least 3 credits from the following:
        - SRVY1341 - Land Surveying (3)
        - DFTG1325 - Blueprint Reading and Sketching (3)
    - Complete the following:
        - MATH1314 - College Algebra (3 SCH version) (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ARCE1321 - Architectural Illustration (3)
        - DFTG1333 - Mechanical Drafting (3)
        - DFTG1330 - Civil Drafting 1 (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - DFTG2302 - Machine Drafting (3)
    - DFTG1317 - Architectural Drafting - Residential (3)
    - DFTG2321 - Topographical Drafting (3)
    - ACGM3SPH - Gen Ed Speech Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - DFTG2328 - Architectural Drafting - Commercial (3)
    - DFTG2335 - Advanced Technologies in Mechanical Design and Drafting (3)
    - DFTG1393 - Special Topics in Civil Drafting Civil Engineering CAD/CADD (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ARCE1352 - Structural Drafting (3)
    - Complete at least 3 credits from the following:

- DFTG1392 - Special Topics in Architectural Drafting and Architectural CAD/CADD (3)
- DFTG1395 - Special Topics in Mechanical Drafting and Mechanical Drafting CAD/CADD (3)
- DFTG2386 - Internship - Drafting and Design Technology/Technician, General (3)
  - Complete the following:
    - DFTG2357 - Advanced Technologies in Pipe Design and Drafting (3)
  - Complete the following:
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - ARCE1352 - Structural Drafting (3)

Pre/Corequisites

- ENGR 1304 Prerequisite(s): MATH 1314
- DFTG 1333, DFTG 1330, DFTG 2386, DFTG 2357 Prerequisite(s): DFTG 1309
- DFTG 2302 Prerequisite(s): DFTG 1333
- DFTG 1317 Prerequisite(s): ARCE 1321
- DFTG 2321 Prerequisite(s): DFTG 1330
- DFTG 2328 Prerequisite(s): DFTG 1317
- DFTG 2335 Prerequisite(s): DFTG 2302
- DFTG 1393 Prerequisite(s): DFTG 2321
- ARCE 1352, DFTG 1392 Prerequisite(s): DFTG 2328
- DFTG 1395 Prerequisite(s): DFTG 2335

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
  - SPCH1311 - Introduction to Speech Communication(3)
  - SPCH1315 - Public Speaking (3)
  - SPCH1318 - Interpersonal Communication (3)
  - SPCH1321 - Business & Professional Communication(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - ANTH2346 - General Anthropology (3)
  - ECON1301 - Introduction to Economics (3)
  - ECON2301 - Principles of Macroeconomics (3)
  - ECON2302 - Principles of Microeconomics (3)
  - GEOG1302 - Human Geography (3)
  - GEOG1303 - World Regional Geography (3)
  - PSYC1100 - Learning Framework (1)
  - PSYC2301 - General Psychology (3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - HIST2312 - Western Civilization II(3)
  - HIST2321 - World Civilizations I(3)
  - SOCI1301 - Introduction to Sociology (3)
  - SOCI1306 - Social Problems (3)
  - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2319 - American Minority Studies (3)
  - HUMA2323 - World Cultures (3)
  - PHIL1301 - Introduction to Philosophy (3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2303 - Introduction to Formal Logic (3)
  - PHIL2306 - Introduction to Ethics (3)
  - ARTS1301 - Art Appreciation (3)
  - ARTS2326 - Sculpture I(3)
  - ARTS2326 - Sculpture I(3)
  - MUSI1306 - Music Appreciation (3)

Architectural Design & Engineering - Architectural Design & Engineering Technology CER2

Locations

Online - TSTC Connect
Waco
Harlingen
Marshall
North Texas

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - DFTG1309 - Basic Computer-Aided Drafting (3)
  - Complete at least 3 credits from the following:
    - DFTG1345 - Parametric Modeling and Design (3)
    - ENGR1304 - Engineering Graphics I (3 Sch version) (3)
  - Complete at least 3 credits from the following:
    - SRVY1341 - Land Surveying (3)
    - DFTG1325 - Blueprint Reading and Sketching (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARCE1321 - Architectural Illustration (3)
  - DFTG1333 - Mechanical Drafting (3)
  - DFTG1330 - Civil Drafting 1 (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - DFTG2302 - Machine Drafting (3)
  - DFTG1317 - Architectural Drafting - Residential (3)
  - DFTG2321 - Topographical Drafting (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - DFTG2328 - Architectural Drafting - Commercial (3)
  - DFTG2335 - Advanced Technologies in Mechanical Design and Drafting (3)
  - DFTG1393 - Special Topics in Civil Drafting Civil Engineering CAD/CADD (3)

Degree Plan Credits **36**

Capstone

- Complete the following:
  - DFTG2335 - Advanced Technologies in Mechanical Design and Drafting (3)

Pre/Corequisites

- ENGR 1304 Prerequisite(s): MATH 1314
- DFTG 1333, DFTG 1330 Prerequisite(s): DFTG 1309
- DFTG 2302 Prerequisite(s): DFTG 1333
- DFTG 1317 Prerequisite(s): ARCE 1321
- DFTG 2321 Prerequisite(s): DFTG 1330
- DFTG 2328 Prerequisite(s): DFTG 1317
- DFTG 2335 Prerequisite(s): DFTG 2302
- DFTG 1393 Prerequisite(s): DFTG 2321

Associate Degree in Nursing

Description

Registered nurses (RNs) make up the largest health care occupation in the United States. Statistics show that 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. TSTC nursing students participate in an active learning environment, including simulation learning labs that are led by instructors with multiple backgrounds.

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 (including one full year in the Vocational Nursing program).

The LVN to ADN transition program requires all prerequisite courses to be completed prior to the first official start of RNSG courses. Prerequisites cannot be taken concurrently while in the nursing program. Students may apply to the program while finishing prerequisites for contingency acceptance; however, full acceptance is not granted until final grades of any prerequisite courses in progress have been evaluated.

Science prerequisites must not be older than 10 years. If A&P I or II are older than 10 years: An LVN that is currently working with direct patient care, and has been for a minimum of 5 years, is eligible to test out of the A&P time limit restrictions. The student may register and take the HESI A&P exam and must make at least an 850. This exam can only be taken ONCE per application period.

● If this score is MET, the student will not have to retake the expired A&P courses.

● If this score is NOT met, the student will need to retake the A&P courses that are expired or wait to retake the HESI A&P exam in the next application period.

● This must be completed prior to the application period due date. Score must be submitted with the application.

Grades below a C are transferable into TSTC but are not accepted for application to the nursing program. All prerequisites for the nursing program must be a C or better.

Health science students should be aware that many of the facilities where they will receive clinical training require each student to be covered by various forms of insurance. The required insurance could be health, accident, needlestick and liability insurance, but many facilities do not require all four kinds. Students can purchase accident, needlestick and liability, if needed, through TSTC; however, TSTC does not provide the ability to purchase health insurance. TSTC may request proof of coverage prior to enrollment or prior to placement at a clinical site, and clinical site personnel may ask for proof of coverage at any time. Students may be denied access to clinical experience if not covered by the required insurance. Failure of students to obtain required insurance will prevent students from attending some facilities, which will probably prevent students from completing the program or cause them to fail the program. Should a student be denied clinical experience due to lack of insurance coverage, TSTC cannot adjust grades or credits or make any other adjustments.

The TSTC LVN-RN Program assigns grades based on student performance for each course completed using the following grading scale:

GRADE	POINTS
A	90-100
B	80-89
C	70-79
D	60-69
F	59 and Below

While in the nursing program, a final course grade of B or better is required for all nursing courses. Final course grades of

C or below are considered failing grades.

Associate Degree in Nursing - Nursing AAS

Locations

Harlingen
Sweetwater

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 4 credits from the following:
        - BIOL2401 - Anatomy & Physiology I (lecture + lab) (4)
        - BIOL2301 - Anatomy & Physiology I (lecture) (3)
        - BIOL2101 - Anatomy & Physiology I (lab) (1)
    - Complete the following:
        - ENGL1301 - Composition I (3)
    - Complete the following:
        - PSYC2314 - Lifespan Growth & Development (3)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 2
11 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 4 credits from the following:
        - BIOL2402 - Anatomy & Physiology II (lecture + lab) (4)
        - BIOL2302 - Anatomy & Physiology II (lecture) (3)
        - BIOL2102 - Anatomy & Physiology II (lab) (1)
    - Complete at least 4 credits from the following:
        - BIOL2420 - Microbiology for Non-Science Majors (lecture + lab) (4)
        - BIOL2320 - Microbiology for Non-Science Majors (lecture) (3)
        - BIOL2120 - Microbiology for Non-Science Majors Laboratory (lab) (1)
    - Complete the following:
        - PSYC2301 - General Psychology (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - RNSG1210 - Introduction to Community-Based Nursing (2)
    - RNSG1227 - Transition to Professional Nursing (2)
    - RNSG1261 - Clinical - Registered Nursing/Registered Nurse (2)
    - RNSG1300 - Health Assessment Across the Lifespan (3)
    - RNSG1301 - Pharmacology (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - RNSG1343 - Complex Concepts of Adult Health (3)
    - RNSG1412 - Nursing Care of the Childbearing and Childrearing Family (4)
    - RNSG2162 - Clinical - Registered Nursing/Registered Nurse (1)
    - RNSG2213 - Mental Health Nursing (2)
    - RNSG2262 - Clinical - Registered Nursing/Registered Nurse (2)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - RNSG1463 - Clinical - Registered Nursing/Registered Nurse (4)
    - RNSG2221 - Professional Nursing: Leadership and Management (2)
    - RNSG2230 - Professional Nursing Review and Licensure Preparation (2)
    - RNSG2432 - Enhanced Concepts of Adult Health (4)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - RNSG2230 - Professional Nursing Review and Licensure Preparation (2)

Pre/Corequisites

- RNSG 1210 Corequisite(s): RNSG 1261
- RNSG 1227 Corequisite(s): RNSG 1261
- RNSG 1261 Corequisite(s): RNSG 1210, RNSG 1227
- RNSG 1343 Prerequisite(s): RNSG 1261; Corequisite(s): RNSG 2262
- RNSG 1412 Corequisite(s): RNSG 2262
- RNSG 2162 Prerequisite(s): RNSG 1261; Corequisite(s): RNSG 2213
- RNSG 2213 Corequisite(s): RNSG 2162
- RNSG 2262 Prerequisite(s): RNSG 1261; Corequisite(s): RNSG 1343
- RNSG 1463 Prerequisite(s): RNSG 2162; Corequisite(s): RNSG 2432
- RNSG 2221, RNSG 2230 Prerequisite(s): RNSG 2162
- RNSG 2432 Prerequisite(s): RNSG 2262; Corequisite(s): RNSG 1463

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I (3)
  - HUMA2319 - American Minority Studies (3)
  - HUMA2323 - World Cultures (3)
  - PHIL1301 - Introduction to Philosophy (3)
  - PHIL1304 - Introduction to World Religions (3)
  - PHIL2303 - Introduction to Formal Logic (3)
  - PHIL2306 - Introduction to Ethics (3)
  - ARTS1301 - Art Appreciation (3)
  - ARTS2326 - Sculpture I (3)
  - ARTS2326 - Sculpture I (3)
  - MUSI1306 - Music Appreciation (3)

Auto Collision & Management Technology

Description

According to autonews.com, auto collision repair is a $35 billion-a-year business in the United States. That is why the auto body industry is a great career choice for those seeking a relatively stable job with above-average wages. At TSTC, you will get the crucial hands-on experience that can make you irresistible to employers. The Auto Collision and Management Technology 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 - Auto Collision & Management Technology - Refinishing AAS

Locations

Waco
Harlingen
Fort Bend County

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1203 - Vehicle Design and Structural Analysis (2)
    - ABDR1215 - Vehicle Trim and Hardware (2)
    - ABDR1349 - Automotive Plastic and Sheet Molded Compound Repair (3)
    - ABDR1371 - Basic Paint Techniques, Equipment & Environmental Practices (3)
    - ENGL1301 - Composition I (3)

Semester 2
18 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1419 - Basic Metal Repair (4)
    - ABDR1431 - Basic Refinishing (4)
    - ABDR1458 - Intermediate Refinishing (4)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 3
17 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR2255 - Collision Repair Estimating (2)
    - ABDR2371 - Refinishing Process I (3)
    - ABDR2449 - Advanced Refinishing (4)
    - ABDR2551 - Specialized Refinishing Techniques (5)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 2 credits from the following:
        - ABDR2270 - Advanced Application Processes of Refinishing (2)
        - ABDR2281 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (2)
    - Complete the following:
        - ABDR2357 - Collision Repair Shop Management (3)
        - ABDR2453 - Color Analysis and Paint Matching (4)
        - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete at least 2 credits from the following:
    - ABDR2270 - Advanced Application Processes of Refinishing (2)
    - ABDR2281 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (2)
- Complete the following:
    - ABDR2453 - Color Analysis and Paint Matching (4)

Pre/Corequisites

- ABDR 1431, ABDR 1458 Prerequisite(s): ABDR 1371
- ABDR 2371, ABDR2449, ABDR 2551 Prerequisite(s): ABDR 1458, ABDR 1431
- ABDR 2270, ABDR 2281, ABDR 2453 Prerequisite(s): ABDR 2449, ABDR 2551
- ABDR 2357 Prerequisite(s): ABDR 2255

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)

Auto Collision & Management Technology - Auto Collision & Management Technology - Refinishing CER1

<u>**Locations**</u>

Waco
Harlingen
Fort Bend County

<u>**Program Requirements**</u>

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1203 - Vehicle Design and Structural Analysis (2)
    - ABDR1215 - Vehicle Trim and Hardware (2)
    - ABDR1349 - Automotive Plastic and Sheet Molded Compound Repair (3)
    - ABDR1371 - Basic Paint Techniques, Equipment & Environmental Practices (3)
    - TECM1303 - Technical Calculations (3)

Semester 2
17 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1419 - Basic Metal Repair (4)
    - ABDR1431 - Basic Refinishing (4)
    - ABDR1458 - Intermediate Refinishing (4)
    - POFT1301 - Business English (3)
    - ABDR2255 - Collision Repair Estimating (2)

Degree Plan Credits **30**

<u>**Capstone**</u>

- Complete the following:
    - ABDR1458 - Intermediate Refinishing (4)

<u>**Pre/Corequisites**</u>

- ABDR 1431, ABDR 1458 Prerequisite(s): ABDR 1371

Auto Collision & Management Technology - Auto Collision & Management Technology - Refinishing CER2

<u>Locations</u>

Waco
Harlingen
Fort Bend County

<u>Program Requirements</u>

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1203 - Vehicle Design and Structural Analysis (2)
    - ABDR1215 - Vehicle Trim and Hardware (2)
    - ABDR1349 - Automotive Plastic and Sheet Molded Compound Repair (3)
    - ABDR1371 - Basic Paint Techniques, Equipment & Environmental Practices (3)
    - TECM1303 - Technical Calculations (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1419 - Basic Metal Repair (4)
    - ABDR1431 - Basic Refinishing (4)
    - ABDR1458 - Intermediate Refinishing (4)
    - POFT1301 - Business English (3)

Semester 3
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR2255 - Collision Repair Estimating (2)
    - ABDR2371 - Refinishing Process I (3)
    - ABDR2449 - Advanced Refinishing (4)
    - ABDR2551 - Specialized Refinishing Techniques (5)

Degree Plan Credits **42**

<u>Capstone</u>

- Complete the following:
    - ABDR2449 - Advanced Refinishing (4)

<u>Pre/Corequisites</u>

- ABDR 1431, ABDR 1458 Prerequisite(s): ABDR 1371
- ABDR 2371, ABDR 2449, ABDR 2551 Prerequisite(s): ABDR 1458, ABDR 1431

Auto Collision & Management Technology - Auto Collision & Management Technology - Repair CO-OP AAS

<u>Locations</u>

Waco

Program Requirements

Semester 1 First Session
11 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1215 - Vehicle Trim and Hardware (2)
    - ABDR1349 - Automotive Plastic and Sheet Molded Compound Repair (3)
    - ABDR1371 - Basic Paint Techniques, Equipment & Environmental Practices (3)
    - ENGL1301 - Composition I (3)

Semester 1 Second Session
2 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1280 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (2)

Semester 2 First Session
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1307 - Collision Repair Welding (3)
    - ABDR2255 - Collision Repair Estimating (2)
    - ABDR2435 - Structural Analysis and Damage Repair IV (4)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 2 Second Session
3 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR2380 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (3)

Semester 3 First Session
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1419 - Basic Metal Repair (4)
    - ABDR2447 - Advanced Collision Repair Welding (4)
    - ACGM3GED - Gen Ed Elective (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 3 Second Session
3 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR2381 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (3)

Semester 4 First Session
4 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1481 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (4)

Semester 4 Second Session
11 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR2359 - Structural Sectioning (3)
    - ABDR2502 - Auto Body Mechanical and Electrical Service (5)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - ABDR1481 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (4)
  - ABDR2359 - Structural Sectioning (3)
  - ABDR2502 - Auto Body Mechanical and Electrical Service (5)

Pre/Corequisites

- ABDR 1307, ABDR 2435 Prerequisite(s): ABDR 1215
- ABDR 2447 Prerequisite(s): ABDR 1307
- ABDR 2359, ABDR 2502 Prerequisite(s): ABDR 1307, ABDR 1419, ABDR 2435

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete 1 General Education Elective as recommended by program
- Complete at least courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)

Auto Collision & Management Technology - Auto Collision & Management Technology - Repair AAS

Locations

Waco
Harlingen
Fort Bend County

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1203 - Vehicle Design and Structural Analysis (2)
    - ABDR1215 - Vehicle Trim and Hardware (2)
    - ABDR1349 - Automotive Plastic and Sheet Molded Compound Repair (3)
    - ABDR1371 - Basic Paint Techniques, Equipment & Environmental Practices (3)
    - ENGL1301 - Composition I (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1307 - Collision Repair Welding (3)
    - ABDR2255 - Collision Repair Estimating (2)
    - ABDR2435 - Structural Analysis and Damage Repair IV (4)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 3
17 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1323 - Front and Rear Wheel Alignment (3)
    - ABDR1419 - Basic Metal Repair (4)
    - ABDR2447 - Advanced Collision Repair Welding (4)
    - ACGM3GED - Gen Ed Elective (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 4 credits from the following:
        - ABDR1442 - Structural Analysis and Damage Repair II (4)
        - ABDR1481 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (4)
    - Complete the following:
        - ABDR2357 - Collision Repair Shop Management (3)
        - ABDR2359 - Structural Sectioning (3)
        - ABDR2502 - Auto Body Mechanical and Electrical Service (5)

Degree Plan Credits **60**

Capstone

- Complete 1 of the following
    - Complete the following:
        - ABDR1442 - Structural Analysis and Damage Repair II (4)
    - Complete the following:
        - ABDR1481 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (4)
- Complete the following:
    - ABDR2359 - Structural Sectioning (3)
    - ABDR2502 - Auto Body Mechanical and Electrical Service (5)

Pre/Corequisites

- ABDR 1307, ABDR 2435 Prerequisite(s): ABDR 1215
- ABDR 1323 Prerequisite(s): ABDR 2435
- ABDR 2447 Prerequisite(s): ABDR 1307
- ABDR 1442 Prerequisite(s): ABDR 1323, ABDR 1419, ABDR 2435
- ABDR 2357 Prerequisite(s): ABDR 2255
- ABDR 2359, ABDR 2502 Prerequisite(s): ABDR 1307, ABDR 1419, ABDR 2435

Elective Options

- Complete at least courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete 1 General Education Elective as recommended by program
- Complete at least courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)

Auto Collision & Management Technology - Auto Collision & Management Technology - Repair CER1

Locations

Waco
Harlingen
Fort Bend County

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1203 - Vehicle Design and Structural Analysis (2)
    - ABDR1215 - Vehicle Trim and Hardware (2)
    - ABDR1349 - Automotive Plastic and Sheet Molded Compound Repair (3)
    - ABDR1371 - Basic Paint Techniques, Equipment & Environmental Practices (3)
    - TECM1303 - Technical Calculations (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1307 - Collision Repair Welding (3)
    - ABDR1359 - Sheet Metal Fabrication I (3)
    - ABDR2255 - Collision Repair Estimating (2)
    - ABDR2435 - Structural Analysis and Damage Repair IV (4)

Semester 3
10 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1323 - Front and Rear Wheel Alignment (3)
    - ABDR1419 - Basic Metal Repair (4)
    - POFT1301 - Business English (3)

Degree Plan Credits **35**

Capstone

- Complete the following:
    - ABDR1419 - Basic Metal Repair (4)
    - ABDR2435 - Structural Analysis and Damage Repair IV (4)

Pre/Corequisites

- ABDR 1307, ABDR 2435 Prerequisite(s): ABDR 1215
- ABDR 1323 Prerequisite(s): ABDR 2435

Auto Collision & Management Technology - Auto Collision & Management Technology - Repair CER2

Locations

Waco
Harlingen
Fort Bend County

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1203 - Vehicle Design and Structural Analysis (2)
    - ABDR1215 - Vehicle Trim and Hardware (2)
    - ABDR1349 - Automotive Plastic and Sheet Molded Compound Repair (3)
    - ABDR1371 - Basic Paint Techniques, Equipment & Environmental Practices (3)
    - TECM1303 - Technical Calculations (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1307 - Collision Repair Welding (3)
    - ABDR1359 - Sheet Metal Fabrication I (3)
    - ABDR2255 - Collision Repair Estimating (2)
    - ABDR2435 - Structural Analysis and Damage Repair IV (4)

Semester 3
10 Total Credits
keyboard_arrow_up

- Complete the following:
    - ABDR1323 - Front and Rear Wheel Alignment (3)
    - ABDR1419 - Basic Metal Repair (4)
    - POFT1301 - Business English (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ABDR2359 - Structural Sectioning (3)
        - ABDR2502 - Auto Body Mechanical and Electrical Service (5)
    - Complete at least 4 credits from the following:
        - ABDR1442 - Structural Analysis and Damage Repair II (4)
        - ABDR1481 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (4)

Degree Plan Credits **47**

Capstone

- Complete 1 of the following
    - Complete the following:
        - ABDR1442 - Structural Analysis and Damage Repair II (4)
    - Complete the following:
        - ABDR1481 - Cooperative Education - Autobody/Collision and Repair Technology/Technician (4)
- Complete the following:
    - ABDR2359 - Structural Sectioning (3)

Pre/Corequisites

- ABDR 1307, ABDR 2435 Prerequisite(s): ABDR 1215
- ABDR 1323 Prerequisite(s): ABDR 2435
- ABDR 1442 Prerequisite(s): ABDR 1323, ABDR 1419, ABDR 2435
- ABDR 2359, ABDR 2502 Prerequisite(s): ABDR 1307, ABDR 1419, ABDR 2435

Auto Collision & Management Technology - Auto Collision & Management Technology - Tesla ATC

<u>**Locations**</u>

Waco

<u>**Program Requirements**</u>

- Complete the following:
    - AUMT1471 - Introduction and Theory of Tesla Vehicles (4)
    - ABDR1472 - Cosmetic Repair and Conditioning (4)
    - ABDR1473 - Tesla Specialized Welding (4)
    - ABDR1474 - Tesla Structural Repair (4)

Degree Plan Credits **16**

Automation & Controls Technology

<u>**Description**</u>

Automation and Controls Technology students learn how to automate the industrial world. Be on the cutting edge of the automation technologies that companies are using to upgrade their systems. Students will learn how to troubleshoot, calibrate, implement, service, repair and replace analog and electromechanical instruments, putting the automation basics to work. Add in computerized control, robotic control, robotic assembly devices and computer-controlled manufacturing systems like programmable logic controllers and human machine interface, and students will 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 foundation necessary in this high-tech field. Training begins with basic electrical concepts and motors and motor control application. Students then advance to solid state electronic principles, 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 & Controls Technology - Automation & Controls Technology AAS

<u>**Locations**</u>

Marshall

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AACT1371 - Electronics Fundamentals in Automation (3)
    - AACT1372 - Automation Safety and Compliance (3)
    - AACT1373 - Administrative Skills for Technicians (3)
    - ACGM3MTH - Gen Ed Mathematics Elective (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AACT1374 - Electronics Fundamentals in Automation II (3)
    - AACT1375 - Principles of Motion, Measurement and Position I (3)
    - AACT1376 - Intro to Process Control Devices (3)
    - ENGL1301 - Composition I (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AACT2371 - Automation Control Systems Interfacing I (3)
    - AACT2376 - PLC Automation I (3)
    - INTC1343 - Application of Industrial Automatic Controls (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AACT2374 - PLC Automation II (3)
    - AACT2372 - Automation Control Systems Interfacing II (3)
    - AACT2375 - Principles of Motion, Measurement and Position II (3)
    - INTC2339 - Instrument and Control Review (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AACT2373 - Factory I/O (3)
    - INTC2330 - Instrumentation Systems Troubleshooting (3)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - AACT2373 - Factory I/O (3)

Pre/Corequisites

- AACT 1374, AACT 1375, AACT 1376 Prerequisite(s): AACT 1371
- AACT 2371 Prerequisite(s): AACT 1376
- AACT 2376 Prerequisite(s): AACT 1375
- AACT 2374 Prerequisite(s): AACT 2376
- AACT 2372 Prerequisite(s): AACT 2371
- AACT 2375 Prerequisite(s): AACT 2371
- INTC 2339 Prerequisite(s): INTC 1343
- AACT 2373 prerequisite(s): AACT 2376
- INTC 2330 Prerequisite(s): INTC 1343

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Mathematics Elective
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1325 - Calculus for Business & Social Sciences(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - MATH1350 - Math - Teachers I Fundamentals of Math I(3)
    - MATH1351 - Fundamentals of Mathematics II(3)
    - MATH2312 - Pre-Calculus Math (3 SCH version)(3)
    - MATH2313 - Calculus I(3)
    - MATH2318 - Linear Algebra(3)
    - MATH2320 - Differential Equations (3 SCH version)(3)
    - MATH2342 - Elementary Statistical Methods(3)
    - MATH2313 - Calculus I(3)
    - MATH2414 - Calculus II (4 SCH version)(4)
    - MATH2415 - Calculus III (4 SCH version)(4)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)

- HIST1302 - United States History II (3)
- HIST2312 - Western Civilization II (3)
- HIST2321 - World Civilizations I (3)
- SOCI1301 - Introduction to Sociology (3)
- SOCI1306 - Social Problems (3)
- SOCI2319 - Minority Studies I (3)

Automotive Technology

Description

The Automotive Technology program at TSTC features approximately $3 million worth of the latest equipment and laboratories. The program is accredited by Automotive Service Excellence Program Accreditation (ASE), and instructors are certified by ASE and bring years of industry experience to the classroom. Students receive intensive, hands-on training, spending more than 60% of their time in labs, learning by doing. The curriculum is guided by an advisory board of industry leaders, helping to ensure that the training that students receive is on target with what the industry needs.

Automotive Technology offers specializations in Chrysler and Tesla START. For quicker entry into the field, certificates and an occupational skills award are available.

Automotive Technology - Automotive Technology - Chrysler CER2

Locations

Waco

Program Requirements

Semester 1 First Session
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT1305 - Introduction to Automotive Technology (3)
  - AUMT1307 - Automotive Electrical Systems (3)
  - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)

Semester 1 Second Session
1 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT1166 - Practicum (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician (1)

Semester 2 First Session
10 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT1310 - Automotive Brake Systems (3)
  - AUMT1416 - Automotive Suspension and Steering Systems (4)
  - AUMT2337 - Automotive Electronics (3)

Semester 2 Second Session
1 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT1167 - Practicum (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician (1)

Semester 3 First Session
1 Total Credits
keyboard_arrow_up

- Complete the following:

- AUMT2188 - Internship (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician (1)

Semester 3 Second Session
7 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT1345 - Automotive Climate Control Systems (3)
  - AUMT1419 - Automotive Engine Repair (4)

Semester 4 First Session
1 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT2189 - Internship (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician (1)

Semester 4 Second Session
8 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT2417 - Automotive Engine Performance Analysis I (4)
  - AUMT2434 - Automotive Engine Performance Analysis II (4)

Semester 5 First Session
3 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT1380 - Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (3)

Semester 5 Second Session
8 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT2413 - Automotive Drive Train and Axles (4)
  - AUMT2425 - Automotive Automatic Transmission and Transaxle (4)

Degree Plan Credits **49**

Capstone

- Complete the following:
  - AUMT2337 - Automotive Electronics (3)
  - AUMT2434 - Automotive Engine Performance Analysis II (4)
  - AUMT2425 - Automotive Automatic Transmission and Transaxle (4)

Pre/Corequisites

- AUMT 2337 Prerequisite(s): AUMT 2321 (Prerequisite or Corequisite)
- AUMT 1345 Prerequisite(s): AUMT 1201 or AUMT 1305, AUMT 1307 (Prerequisite or Corequisite)
- AUMT 1419 Prerequisite(s): AUMT 1305
- AUMT 2189, AUMT 2434, AUMT 2425 Prerequisite(s): AUMT 2417 (Prerequisite or Corequisite), AUMT 2321
- AUMT 2417 Prerequisite(s): AUMT 1201 or AUMT 1305, AUMT 1307, AUMT 1419 (Prerequisite or Corequisite)
- AUMT 1380 Prerequisite(s): AUMT 1310 (Prerequisite or Corequisite)

Automotive Technology - Automotive Technology - Maintenance & Light Repair CER1

Locations

Harlingen
Sweetwater
Fort Bend County
Waco

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT1305 - Introduction to Automotive Technology (3)
  - AUMT1307 - Automotive Electrical Systems (3)
  - AUMT1310 - Automotive Brake Systems (3)

Semester 2
11 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)
  - AUMT1416 - Automotive Suspension and Steering Systems (4)
  - AUMT1419 - Automotive Engine Repair (4)

Semester 3
10 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT1345 - Automotive Climate Control Systems (3)
  - AUMT2337 - Automotive Electronics (3)
  - AUMT2417 - Automotive Engine Performance Analysis I (4)

Degree Plan Credits **30**

Capstone

- Complete the following:
  - AUMT2337 - Automotive Electronics (3)

Pre/Corequisites

- AUMT 2321 Prerequisite(s): AUMT 1307
- AUMT 1419 Prerequisite(s): AUMT 1305
- AUMT 1345 Prerequisite(s): AUMT 1305, AUMT 1307 (Prerequisite or Corequisite)
- AUMT 2337 Prerequisite(s): AUMT 2321
- AUMT 2417 Prerequisite(s): AUMT 1305, AUMT 1307, AUMT 1419 (Prerequisite or Corequisite)

Automotive Technology - Automotive Technology - Tesla START ATC

Locations

Waco

Program Requirements

Semester 1
16 Total Credits
keyboard_arrow_up

- Complete the following:
    - AUMT1471 - Introduction and Theory of Tesla Vehicles (4)
    - AUMT1472 - Automotive Electrical, Chassis, Driver Assist Systems Theory (4)
    - AUMT1473 - Automotive Electronics Theory (4)
    - AUMT1474 - Infotainment Systems and Service Center Skills (4)

Degree Plan Credits **16**

Capstone

- Complete the following:
    - AUMT1473 - Automotive Electronics Theory (4)

Automotive Technology - Automotive Technology AAS

Locations

Waco
Harlingen
Sweetwater
Fort Bend County

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - AUMT1305 - Introduction to Automotive Technology (3)
    - AUMT1307 - Automotive Electrical Systems (3)
    - AUMT1310 - Automotive Brake Systems (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Semester 2
17 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)
  - AUMT1416 - Automotive Suspension and Steering Systems (4)
  - AUMT1419 - Automotive Engine Repair (4)
  - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 3
16 Total Credits
keyboard_arrow_up

- Complete the following:
  - AUMT1345 - Automotive Climate Control Systems (3)
  - AUMT2337 - Automotive Electronics (3)
  - AUMT2417 - Automotive Engine Performance Analysis I (4)
  - ACGM3GED - Gen Ed Elective (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
15 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete at least 3 credits from the following:
    - AUMT2302 - Automotive Compression Ignition Engines & Fuel Systems (3)
    - AUMT2307 - Hybrid Systems Diagnostics (3)
    - AUMT2380 - Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (3)
  - Complete the following:
    - AUMT2413 - Automotive Drive Train and Axles (4)
    - AUMT2425 - Automotive Automatic Transmission and Transaxle (4)
    - AUMT2434 - Automotive Engine Performance Analysis II (4)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - AUMT2337 - Automotive Electronics (3)
  - AUMT2425 - Automotive Automatic Transmission and Transaxle (4)
  - AUMT2434 - Automotive Engine Performance Analysis II (4)

Pre/Corequisites

- AUMT 2321 Prerequisite(s): AUMT 1307
- AUMT 1419 Prerequisite(s): AUMT 1305, AUMT 1307
- AUMT 1345 Prerequisite(s): AUMT 1305, AUMT 1307 (Prerequisite or Corequisite)
- AUMT 2337 Prerequisite(s): AUMT 2321
- AUMT 2417 Prerequisite(s): AUMT 1305, AUMT 1307, AUMT 1419 (Prerequisite or Corequisite)
- AUMT 2302 Prerequisite(s): AUMT 2417, AUMT 1419
- AUMT 2307 Prerequisite(s): AUMT 2417, AUMT 2321
- AUMT 2380 Prerequisite(s): AUMT 2413, AUMT 2417, AUMT 2321
- AUMT 2425, AUMT 2434 Prerequisite(s): AUMT 2417 (Prerequisite or Corequisite), AUMT 2321

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete 1 General Education Elective as recommended by program.
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)

Automotive Technology - Automotive Technology CER2

<u>**Locations**</u>

Waco
Harlingen
Sweetwater
Fort Bend County

<u>**Program Requirements**</u>

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - AUMT1305 - Introduction to Automotive Technology (3)
    - AUMT1307 - Automotive Electrical Systems (3)
    - AUMT1310 - Automotive Brake Systems (3)

Semester 2
11 Total Credits
keyboard_arrow_up

- Complete the following:
    - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)
    - AUMT1416 - Automotive Suspension and Steering Systems (4)
    - AUMT1419 - Automotive Engine Repair (4)

Semester 3
10 Total Credits
keyboard_arrow_up

- Complete the following:
    - AUMT1345 - Automotive Climate Control Systems (3)
    - AUMT2337 - Automotive Electronics (3)
    - AUMT2417 - Automotive Engine Performance Analysis I (4)

Semester 4
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 3 credits from the following:
        - AUMT2302 - Automotive Compression Ignition Engines & Fuel Systems (3)
        - AUMT2307 - Hybrid Systems Diagnostics (3)
        - AUMT2380 - Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (3)
    - Complete the following:
        - AUMT2413 - Automotive Drive Train and Axles (4)
        - AUMT2425 - Automotive Automatic Transmission and Transaxle (4)
        - AUMT2434 - Automotive Engine Performance Analysis II (4)

Degree Plan Credits **45**

<u>**Capstone**</u>

- Complete the following:
    - AUMT2337 - Automotive Electronics (3)
    - AUMT2425 - Automotive Automatic Transmission and Transaxle (4)
    - AUMT2434 - Automotive Engine Performance Analysis II (4)

Pre/Corequisites

- AUMT 1419 Prerequisite(s): AUMT 1305
- AUMT 1345 Prerequisite(s): AUMT 1305, AUMT 1307 (Prerequisite or Corequisite)
- AUMT 2337 Prerequisite(s): AUMT 2321 (Prerequisite or Corequisite)
- AUMT 2417 Prerequisite(s): AUMT 1305, AUMT 1307, AUMT 1419 (Prerequisite or Corequisite)
- AUMT 2302 Prerequisite(s): AUMT 2417
- AUMT 2307 Prerequisite(s): AUMT 2417, AUMT 2321
- AUMT 2380 Prerequisite(s): AUMT 2413, AUMT 2417, AUMT 2321
- AUMT 2425, AUMT 2434 Prerequisite(s): AUMT 2417 (Prerequisite or Corequisite), AUMT 2321

Avionics Technology

Description

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 Technology - Avionics Technology - Installation Technician CER1

Locations

Waco

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - AVNC1303 - Introduction to Aviation Electronic Systems (3)
  - AVNC1343 - Aviation Electrical and Electronic Systems Installation (3)
  - CETT1302 - Electricity Principles (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - AVNC1353 - Operational Testing of Aviation Electronic Systems (3)
  - AVNC2308 - Aviation Electrical and Electronics Systems Installation II (3)
  - CETT1325 - Digital Fundamentals (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - AVNC1306 - FAA Regulations for Avionics Certified Repair Station (3)
  - AVNC1391 - Installation & Operational Testing of Avionics & Pitot-Static Systems (3)
  - CSIR2301 - Communication Electronics Components (3)
  - CSIR1355 - Industry Certifications (3)

Degree Plan Credits **30**

Capstone

- Complete the following:
  - AVNC1391 - Installation & Operational Testing of Avionics & Pitot-Static Systems (3)

Pre/Corequisites

- CETT 1325 Prerequisite(s): CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305
- CSIR 2301, CSIR 1355 Prerequisite(s): IEIR 1371 or CETT 1302

Avionics Technology - Avionics Technology AAS

Locations

Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - AVNC1303 - Introduction to Aviation Electronic Systems (3)
        - AVNC1343 - Aviation Electrical and Electronic Systems Installation (3)
        - CETT1302 - Electricity Principles (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - AVNC1353 - Operational Testing of Aviation Electronic Systems (3)
        - AVNC2308 - Aviation Electrical and Electronics Systems Installation II (3)
        - CETT1325 - Digital Fundamentals (3)
    - Complete at least 3 credits from the following:
        - MATH1332 - Contemporary Mathematics (Quantitative Reasoning) (3)
        - MATH1314 - College Algebra (3 SCH version) (3)
        - MATH1316 - Plane Trigonometry (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AVNC1306 - FAA Regulations for Avionics Certified Repair Station (3)
    - AVNC1391 - Installation & Operational Testing of Avionics & Pitot-Static Systems (3)
    - CSIR2301 - Communication Electronics Components (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AVNC2304 - Foundations in Avionics Equipment Component Level Repairs (3)
    - AVNC2357 - Aviation Communication Component Level Repair (3)
    - CSIR1355 - Industry Certifications (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - AVNC2345 - Aviation Navigational Equipment Component Level Repair (3)
    - AVNC2350 - Aviation Pulsed RF Equipment Component Level Repair (3)
    - AVNC2355 - Advanced Aviation Electronics Troubleshooting (3)
    - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - AVNC2355 - Advanced Aviation Electronics Troubleshooting (3)

Pre/Corequisites

- CETT 1325 Prerequisite(s): CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305
- CSIR 2301, CSIR 1355 Prerequisite(s): IEIR 1371 or CETT 1302

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I (3)
  - HUMA2319 - American Minority Studies (3)
  - HUMA2323 - World Cultures (3)
  - PHIL1301 - Introduction to Philosophy (3)
  - PHIL1304 - Introduction to World Religions (3)
  - PHIL2303 - Introduction to Formal Logic (3)
  - PHIL2306 - Introduction to Ethics (3)
  - ARTS1301 - Art Appreciation (3)
  - ARTS2326 - Sculpture I (3)
  - ARTS2326 - Sculpture I (3)
  - MUSI1306 - Music Appreciation (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics) (3)
  - GOVT2306 - Texas Government (Texas constitution & topics) (3)
  - ANTH2346 - General Anthropology (3)
  - ECON1301 - Introduction to Economics (3)
  - ECON2301 - Principles of Macroeconomics (3)
  - ECON2302 - Principles of Microeconomics (3)
  - GEOG1302 - Human Geography (3)
  - GEOG1303 - World Regional Geography (3)
  - PSYC1100 - Learning Framework (1)
  - PSYC2301 - General Psychology (3)
  - PSYC2314 - Lifespan Growth & Development (3)
  - HIST1301 - United States History I (3)
  - HIST1302 - United States History II (3)
  - HIST2312 - Western Civilization II (3)
  - HIST2321 - World Civilizations I (3)
  - SOCI1301 - Introduction to Sociology (3)
  - SOCI1306 - Social Problems (3)
  - SOCI2319 - Minority Studies I (3)
- Complete 1 General Education Elective as recommended by program

Biology

Description

The Associate of Science degree in Biology provides the opportunity to complete the core curriculum of general education courses along with additional courses in the field of biology. With this degree, you can work in various fields of biology and health care, or transfer your credits to a four-year institution in order to further your education beyond an Associate of Science degree. The biology courses offered can also provide prerequisite coursework for various allied health programs including the nursing programs.

Biology - Biology AS

Locations

Harlingen

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGL1301 - Composition I (3)
    - HIST1301 - United States History I (3)
    - BIOL1306 - Biology for Science Majors I (lecture) (3)
    - BIOL1106 - Biology for Science Majors Laboratory I (lab) (1)
    - MATH1314 - College Algebra (3 SCH version) (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGL1302 - Composition II (3)
    - HIST1302 - United States History II (3)
    - SPCHX3XX - Gen Ed Speech Elective (3)
    - BIOL1307 - Biology for Science Majors II (3)
    - BIOL1107 - Biology for Science Majors II Lab (1)

Semester 3
10 Total Credits
keyboard_arrow_up

- Complete the following:
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
    - ACGM3CAR - Creative Arts Elective (3)
    - CHEM1311 - General Chemistry I (lecture) (3)
    - CHEM1111 - General Chemistry I (lab) (1)
    - Course Not Found

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - GOVT2305 - Federal Government (Federal constitution & topics) (3)
    - ACGM3LPC - Language, Philosophy and Culture Elective (3)
    - ACGM3BIO - BIO AS - Approved Elective List 2 (3)
    - Course Not Found

Semester 5
7 Total Credits
keyboard_arrow_up

- Complete the following:
    - GOVT2306 - Texas Government (Texas constitution & topics) (3)
    - BIOL2321 - Microbiology for Science Majors (3)
    - BIOL2121 - Microbiology for Science Majors Lab (1)

Degree Plan Credits **52**

Capstone

- Complete the following:
    - BIOL2321 - Microbiology for Science Majors (3)
    - BIOL2121 - Microbiology for Science Majors Lab (1)

Pre/Corequisites

- BIOL 1306 Prerequisite(s): MATH 1314 College Algebra (3 SCH version) recommended, or concurrent enrollment in higher-level mathematics recommended
- BIOL 1106 Prerequisite(s): BIOL 1306 (Prerequisite or Corequisite)
- ENGL 1302 Prerequisite(s): ENGL 1301
- BIOL1307 Prerequisite(s): MATH 1314 College Algebra (3 SCH version) Successful completion of College Algebra or concurrent enrollment in higher-level mathematics is recommended.
- BIOL1107 Prerequisite(s): BIOL 1307 (Prerequisite or Corequisite)
- CHEM1311 Prerequisite(s): MATH 1314 College Algebra (3 SCH version) or equivalent academic preparation. CHEM 1111 General Chemistry I (Corequisite) High school chemistry is strongly recommended
- CHEM1111 Prerequisite(s): CHEM 1311 General Chemistry I (Corequisite)
- CHEM1111 Prerequisite(s): CHEM 1311 General Chemistry I (Corequisite)
- BIOL2121 Prerequisite(s): BIOL 2121 - BIOL 2321 (Prerequisite or Corequisite)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
  - SPCH1311 - Introduction to Speech Communication (3)
  - SPCH1315 - Public Speaking (3)
  - SPCH1318 - Interpersonal Communication (3)
  - SPCH1321 - Business & Professional Communication (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics) (3)
  - GOVT2306 - Texas Government (Texas constitution & topics) (3)
  - ANTH2346 - General Anthropology (3)
  - ECON1301 - Introduction to Economics (3)
  - ECON2301 - Principles of Macroeconomics (3)
  - ECON2302 - Principles of Microeconomics (3)
  - GEOG1302 - Human Geography (3)
  - GEOG1303 - World Regional Geography (3)
  - PSYC1100 - Learning Framework (1)
  - PSYC2301 - General Psychology (3)
  - PSYC2314 - Lifespan Growth & Development (3)
  - HIST1301 - United States History I (3)
  - HIST1302 - United States History II (3)
  - HIST2312 - Western Civilization II (3)
  - HIST2321 - World Civilizations I (3)
  - SOCI1301 - Introduction to Sociology (3)
  - SOCI1306 - Social Problems (3)
  - SOCI2319 - Minority Studies I (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Creative Arts Elective
  - ARTS1301 - Art Appreciation (3)
  - MUSI1306 - Music Appreciation (3)
- Complete at least 8 credits from the following course set:
  keyboard_arrow_up
  Biology 4 Credit Approved Elective List 1
  - BIOL1111 - General Botany Lab (1)
  - BIOL1311 - General Botany (3)
  - BIOL1113 - General Zoology (lab) (1)
  - BIOL1313 - General Zoology (lecture) (3)
  - BIOL2101 - Anatomy & Physiology I (lab) (1)
  - BIOL2301 - Anatomy & Physiology I (lecture) (3)
  - BIOL2102 - Anatomy & Physiology II (lab) (1)
  - BIOL2302 - Anatomy & Physiology II (lecture) (3)
  - BIOL2306 - Environmental Biology (lecture) (3)
  - BIOL2106 - Environmental Biology (lab) (1)
  - BIOL2116 - Genetics (lab) (1)
  - BIOL2316 - Genetics (lecture) (3)
  - CHEM1112 - General Chemistry II (lab) (1)
  - CHEM1312 - General Chemistry II (lecture) (3)
  - PHYS1101 - College Physics Laboratory I (1)
  - PHYS1301 - College Physics I (lecture) (3)

- PHYS1102 - College Physics Lab II(1)
- PHYS1302 - College Physics II (lecture)(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Language, Philosophy & Culture Elective
    - ENGL2321 - British Literature(3)
    - ENGL2326 - American Literature (single-Semester Course)(3)
    - ENGL2331 - World Literature(3)
    - PHIL1304 - Introduction to World Religions(3)
- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Biology 3 Credit Approved Elective List 2
    - ANTH2346 - General Anthropology(3)
    - BIOL1322 - Nutrition & Diet Therapy(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - SOCI1301 - Introduction to Sociology(3)
    - MATH2312 - Pre-Calculus Math (3 SCH version)(3)

Biomedical Equipment Technology

Description

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.

Grading Scale :

Grade A 90-100

Grade B 80-89

Grade C 70-79

Grade D 60-69

Grade F Below 60

Student must obtain a Grade of "C" or higher to pass classes taken while in the program.

Transfer credit shall be processed by the Office of the Registrar 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. In the case of a transfer credit dispute or appeal, the Associate Vice Chancellor for Instructional Alignment & Innovation or a 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. **Note: Programs in Health Sciences may have particular acceptance of academic course policies as outlined in their program application documentation or program handbook references.

Biomedical Equipment Technology - Biomedical Equipment Technology - Medical Imaging AAS

Locations

Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - BIOM1101 - Biomedical Equipment Technology (1)
  - BIOM1270 - Shop Skills for Biomedical Equipment Technicians (2)
  - BIOM1373 - Medical Software and Hardware (3)
  - CETT1303 - DC Circuits (3)
  - ACGM3MTH - Gen Ed Mathematics Elective (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - BIOM1309 - Applied Biomedical Equipment Technology (3)
  - Complete at least 3 credits from the following:
    - BIOM1315 - Medical Equipment Networks (3)
    - ITNW1325 - Fundamentals of Networking Technologies (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)
  - Complete the following:
    - CETT1305 - AC Circuits (3)
    - ACGM3NSC - Gen Ed Natural Science Elective (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - BIOM1341 - Medical Circuits/Troubleshooting (3)
  - BIOM2301 - Safety in Health Care Facilities (3)
  - BIOM2319 - Fundamentals of X-Ray and Medical Imaging Systems (3)
  - CETT1325 - Digital Fundamentals (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - BIOM1350 - Diagnostic Ultrasound Imaging System (3)
  - BIOM2333 - Digital Radiography (3)
  - BIOM2345 - Advanced Imaging Systems (3)
  - BIOM2347 - RF/X-Ray System (3)

Semester 5
6 Total Credits
keyboard_arrow_up

- Complete the following:
  - BIOM2389 - Internship-Biomedical Engineering Technician (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - BIOM2389 - Internship-Biomedical Engineering Technician (3)

Pre/Corequisites

- BIOM 1315 Prerequisite(s): BIOM 1373
- CETT 1305 Prerequisite(s): CETT 1303
- BIOM 1341, BIOM 2301, BIOM 1350, BIOM 2319 Prerequisite(s): CETT 1303, CETT 1305
- CETT 1325 Prerequisite(s): CETT 1302, CETT 1305 (Prerequisite or Corequisite)
- BIOM 2333, BIOM 2345, BIOM 2347 Prerequisite(s): BIOM 2319

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Mathematics Elective
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1325 - Calculus for Business & Social Sciences(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - MATH1350 - Math - Teachers I Fundamentals of Math I(3)
    - MATH1351 - Fundamentals of Mathematics II(3)
    - MATH2312 - Pre-Calculus Math (3 SCH version)(3)
    - MATH2313 - Calculus I(3)
    - MATH2318 - Linear Algebra(3)
    - MATH2320 - Differential Equations (3 SCH version)(3)
    - MATH2342 - Elementary Statistical Methods(3)
    - MATH2313 - Calculus I(3)
    - MATH2414 - Calculus II (4 SCH version)(4)
    - MATH2415 - Calculus III (4 SCH version)(4)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Natural Science Elective
    - BIOL1106 - Biology for Science Majors Laboratory I (lab)(1)
    - BIOL1107 - Biology for Science Majors II Lab(1)
    - BIOL1108 - Biology Non-Science Majors Laboratory I(1)
    - BIOL1109 - Biology for Non-Science Majors II Lab(1)
    - BIOL1113 - General Zoology (lab)(1)
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL1313 - General Zoology (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL2101 - Anatomy & Physiology I (lab)(1)
    - BIOL2102 - Anatomy & Physiology II (lab)(1)
    - BIOL2116 - Genetics (lab)(1)
    - BIOL2120 - Microbiology for Non-Science Majors Laboratory (lab)(1)
    - BIOL2121 - Microbiology for Science Majors Lab(1)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2316 - Genetics (lecture)(3)
    - BIOL2320 - Microbiology for Non-Science Majors (lecture)(3)
    - BIOL2321 - Microbiology for Science Majors(3)
    - BIOL2401 - Anatomy & Physiology I (lecture + lab)(4)
    - BIOL2402 - Anatomy & Physiology II (lecture + lab)(4)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - BIOL2416 - Genetics(4)
    - BIOL2420 - Microbiology for Non-Science Majors (lecture + lab)(4)
    - CHEM1105 - Introductory Chemistry Laboratory I (lab)(1)
    - CHEM1107 - Introductory Chemistry Laboratory II(1)
    - CHEM1111 - General Chemistry I (lab)(1)
    - CHEM1112 - General Chemistry II (lab)(1)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1307 - Introductory Chemistry II(3)
    - CHEM1311 - General Chemistry I (lecture)(3)

- CHEM1312 - General Chemistry II (lecture)(3)
- CHEM1405 - Introductory Chemistry I(4)
- CHEM1406 - Introductory Chemistry I(4)
- CHEM1411 - General Chemistry I(4)
- CHEM1412 - General Chemistry II(4)
- CHEM1414 - General Chemistry II(4)
- CHEM2123 - Organic Chemistry I Lab(1)
- CHEM2125 - Organic Chemistry II Lab(1)
- CHEM2323 - Organic Chemistry I(3)
- CHEM2325 - Organic Chemistry II(3)
- GEOL1403 - Physical Geology(4)
- HORT1401 - Horticulture (lecture + Lab)(4)
- PHYS1101 - College Physics Laboratory I(1)
- PHYS1102 - College Physics Lab II(1)
- PHYS1110 - Elementary Physics(1)
- PHYS1115 - Physical Science Lab I(1)
- PHYS1117 - Physical Science Lab II(1)
- PHYS1301 - College Physics I (lecture)(3)
- PHYS1302 - College Physics II (lecture)(3)
- PHYS1310 - Elementary Physics(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1401 - College Physics I(4)
- PHYS1402 - College Physics II(4)
- PHYS1410 - Elementary Physics(4)
- PHYS1415 - Physical Science I(4)
- PHYS2125 - University Physics Laboratory I (lab)(1)
- PHYS2126 - University Physics Laboratory II (lab)(1)
- PHYS2325 - University Physics I (lecture)(3)
- PHYS2326 - University Physics II (lecture)(3)
- PHYS2126 - University Physics Laboratory II (lab)(1)
- PHYS2426 - University Physics II(4)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - ANTH2346 - General Anthropology(3)
  - ECON1301 - Introduction to Economics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GEOG1302 - Human Geography(3)
  - GEOG1303 - World Regional Geography(3)
  - PSYC1100 - Learning Framework(1)
  - PSYC2301 - General Psychology(3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - HIST2312 - Western Civilization II(3)
  - HIST2321 - World Civilizations I(3)
  - SOCI1301 - Introduction to Sociology(3)
  - SOCI1306 - Social Problems(3)
  - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2319 - American Minority Studies(3)
  - HUMA2323 - World Cultures(3)
  - PHIL1301 - Introduction to Philosophy(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2303 - Introduction to Formal Logic(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ARTS1301 - Art Appreciation(3)
  - ARTS2326 - Sculpture I(3)
  - ARTS2326 - Sculpture I(3)
  - MUSI1306 - Music Appreciation(3)

Biomedical Equipment Technology - Biomedical Equipment Technology AAS

Locations

Waco
Harlingen

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - BIOM1101 - Biomedical Equipment Technology (1)
    - BIOM1270 - Shop Skills for Biomedical Equipment Technicians (2)
    - BIOM1373 - Medical Software and Hardware (3)
    - CETT1303 - DC Circuits (3)
    - ACGM3MTH - Gen Ed Mathematics Elective (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - BIOM1309 - Applied Biomedical Equipment Technology (3)
    - Complete at least 3 credits from the following:
        - BIOM1315 - Medical Equipment Networks (3)
        - ITNW1325 - Fundamentals of Networking Technologies (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)
    - Complete the following:
        - CETT1305 - AC Circuits (3)
        - ACGM3NSC - Gen Ed Natural Science Elective (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - BIOM1341 - Medical Circuits/Troubleshooting (3)
    - BIOM2301 - Safety in Health Care Facilities (3)
    - BIOM2311 - General Medical Equipment I (3)
    - BIOM2319 - Fundamentals of X-Ray and Medical Imaging Systems (3)
    - CETT1325 - Digital Fundamentals (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - BIOM2215 - Physiological Instruments I (2)
        - BIOM2231 - Biomedical Clinical Instrumentation (2)
    - Complete at least 2 credits from the following:
        - BIOM2239 - Physiological Instruments II (2)
        - BIOM1291 - Special Topics in Biomedical Engineering-Related Technology/Technician (2)
        - BIOM1250 - Diagnostic Ultrasound Imaging System (2)
    - Complete at least 3 credits from the following:
        - BIOM2343 - General Medical Equipment II (3)
        - BIOM1355 - Medical Electronic Applications (3)
    - Complete the following:

- ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 5
6 Total Credits
keyboard_arrow_up

- Complete the following:
  - BIOM2388 - Internship - Biomedical Technology/Technician (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - BIOM2388 - Internship - Biomedical Technology/Technician (3)

Pre/Corequisites

- BIOM 1315 Prerequisite(s): BIOM 1373
- CETT 1305 Prerequisite(s): CETT 1303
- BIOM 1341, BIOM 2301, BIOM 2311, BIOM 2319 Prerequisite(s): CETT 1303, CETT 1305
- CETT 1325 Prerequisite(s): CETT 1302, CETT 1305 (Prerequisite or Corequisite)
- BIOM 2215 Prerequisite(s): BIOM 2301
- BIOM 2239 Prerequisite(s): BIOM 2301, BIOM 2215 (Corequisite)
- BIOM 2343, BIOM 1355 Prerequisite(s): BIOM 2301

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Mathematics Elective
  - MATH1314 - College Algebra (3 SCH version)(3)
  - MATH1316 - Plane Trigonometry (3)
  - MATH1325 - Calculus for Business & Social Sciences(3)
  - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
  - MATH1342 - Elementary Statistical Methods(3)
  - MATH1350 - Math - Teachers I Fundamentals of Math I(3)
  - MATH1351 - Fundamentals of Mathematics II(3)
  - MATH2312 - Pre-Calculus Math (3 SCH version)(3)
  - MATH2313 - Calculus I(3)
  - MATH2318 - Linear Algebra (3)
  - MATH2320 - Differential Equations (3 SCH version)(3)
  - MATH2342 - Elementary Statistical Methods(3)
  - MATH2313 - Calculus I(3)
  - MATH2414 - Calculus II (4 SCH version)(4)
  - MATH2415 - Calculus III (4 SCH version)(4)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Natural Science Elective
  - BIOL1106 - Biology for Science Majors Laboratory I (lab)(1)
  - BIOL1107 - Biology for Science Majors II Lab(1)
  - BIOL1108 - Biology Non-Science Majors Laboratory I(1)
  - BIOL1109 - Biology for Non-Science Majors II Lab(1)
  - BIOL1113 - General Zoology (lab)(1)
  - BIOL1306 - Biology for Science Majors I (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL1308 - Biology for Non-Science Majors I(3)
  - BIOL1309 - Biology for Non-Science Majors II(3)
  - BIOL1313 - General Zoology (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL2101 - Anatomy & Physiology I (lab)(1)
  - BIOL2102 - Anatomy & Physiology II (lab)(1)
  - BIOL2116 - Genetics (lab)(1)
  - BIOL2120 - Microbiology for Non-Science Majors Laboratory (lab)(1)
  - BIOL2121 - Microbiology for Science Majors Lab(1)
  - BIOL2301 - Anatomy & Physiology I (lecture)(3)
  - BIOL2302 - Anatomy & Physiology II (lecture)(3)
  - BIOL2316 - Genetics (lecture)(3)
  - BIOL2320 - Microbiology for Non-Science Majors (lecture)(3)

- BIOL2321 - Microbiology for Science Majors(3)
- BIOL2401 - Anatomy & Physiology I (lecture + lab)(4)
- BIOL2402 - Anatomy & Physiology II (lecture + lab)(4)
- BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
- BIOL2416 - Genetics(4)
- BIOL2420 - Microbiology for Non-Science Majors (lecture + lab)(4)
- CHEM1105 - Introductory Chemistry Laboratory I (lab)(1)
- CHEM1107 - Introductory Chemistry Laboratory II(1)
- CHEM1111 - General Chemistry I (lab)(1)
- CHEM1112 - General Chemistry II (lab)(1)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1307 - Introductory Chemistry II(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1312 - General Chemistry II (lecture)(3)
- CHEM1405 - Introductory Chemistry I(4)
- CHEM1406 - Introductory Chemistry I(4)
- CHEM1411 - General Chemistry I(4)
- CHEM1412 - General Chemistry II(4)
- CHEM1414 - General Chemistry II(4)
- CHEM2123 - Organic Chemistry I Lab(1)
- CHEM2125 - Organic Chemistry II Lab(1)
- CHEM2323 - Organic Chemistry I(3)
- CHEM2325 - Organic Chemistry II(3)
- GEOL1403 - Physical Geology(4)
- HORT1401 - Horticulture (lecture + Lab)(4)
- PHYS1101 - College Physics Laboratory I(1)
- PHYS1102 - College Physics Lab II(1)
- PHYS1110 - Elementary Physics(1)
- PHYS1115 - Physical Science Lab I(1)
- PHYS1117 - Physical Science Lab II(1)
- PHYS1301 - College Physics I (lecture)(3)
- PHYS1302 - College Physics II (lecture)(3)
- PHYS1310 - Elementary Physics(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1401 - College Physics I(4)
- PHYS1402 - College Physics II(4)
- PHYS1410 - Elementary Physics(4)
- PHYS1415 - Physical Science I(4)
- PHYS2125 - University Physics Laboratory I (lab)(1)
- PHYS2126 - University Physics Laboratory II (lab)(1)
- PHYS2325 - University Physics I (lecture)(3)
- PHYS2326 - University Physics II (lecture)(3)
- PHYS2126 - University Physics Laboratory II (lab)(1)
- PHYS2426 - University Physics II(4)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective

- HUMA1301 - Introduction to Humanities I (3)
- HUMA2319 - American Minority Studies (3)
- HUMA2323 - World Cultures (3)
- PHIL1301 - Introduction to Philosophy (3)
- PHIL1304 - Introduction to World Religions (3)
- PHIL2303 - Introduction to Formal Logic (3)
- PHIL2306 - Introduction to Ethics (3)
- ARTS1301 - Art Appreciation (3)
- ARTS2326 - Sculpture I (3)
- ARTS2326 - Sculpture I (3)
- MUSI1306 - Music Appreciation (3)

Building Construction Technology

Description

TSTC's Building Construction Technology 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 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 - Building Construction Technology - Commercial Construction Management AAS

Locations

Harlingen
Waco

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - CNBT1300 - Residential and Light Commercial Construction Drawings (3)
    - CNBT1411 - Construction Materials and Methods I (4)
    - OSHT1307 - Construction Site Safety and Health (3)
    - CNBT1315 - Field Engineering I (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CNBT1313 - Concrete I (3)
    - CNBT1302 - Mechanical, Electrical & Plumbing Systems in Construction I (3)
    - CNBT1342 - Building Codes and Inspections (3)
    - CNBT2310 - Commercial/Industrial Blueprint Reading (3)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - CNBT1346 - Construction Estimating I (3)
    - CNBT1449 - Concrete II (4)
    - CNBT2342 - Construction Management I (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 4
13 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - CNBT1359 - Project Scheduling (3)
        - CNBT2404 - Construction Methods and Materials II (4)
        - CNBT2344 - Construction Management II (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 5
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)
    - ACGM3GED - Gen Ed Elective (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - CNBT2344 - Construction Management II (3)

Pre/Corequisites

- CNBT 2310 Prerequisite(s): CNBT 1300
- CNBT 1449 Prerequisite(s): CNBT 1313
- CNBT 2404 Prerequisite(s): CNBT 1411
- CNBT 2344 Prerequisite(s): CNBT 2342

<u>Elective Options</u>

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete 1 General Education Elective as recommended by program
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)

Building Construction Technology - Building Construction Technology - Craftsman CER1

Locations

Waco
Harlingen
New Braunfels
Marshall
Fort Bend County
Sweetwater

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CNBT1300 - Residential and Light Commercial Construction Drawings (3)
    - CNBT1316 - Construction Technology I (3)
    - OSHT1307 - Construction Site Safety and Health (3)
    - CNBT1315 - Field Engineering I (3)

Semester 2
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - CNBT1313 - Concrete I (3)
    - CNBT1302 - Mechanical, Electrical & Plumbing Systems in Construction I (3)
    - CNBT1450 - Construction Technology II (4)
    - CNBT1453 - Construction Technology III (4)

Semester 3
7 Total Credits
keyboard_arrow_up

- Complete the following:
    - CNBT1346 - Construction Estimating I (3)
    - CNBT2439 - Construction Technology IV (4)

Degree Plan Credits **33**

Capstone

- Complete the following:
    - CNBT2439 - Construction Technology IV (4)

Pre/Corequisites

- CNBT 1450, CNBT 1453, CNBT 2439 Prerequisite(s): CNBT 1316

Building Construction Technology - Building Construction Technology AAS

Locations

Waco
Harlingen

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CNBT1300 - Residential and Light Commercial Construction Drawings (3)
    - CNBT1316 - Construction Technology I (3)
    - OSHT1307 - Construction Site Safety and Health (3)
    - CNBT1315 - Field Engineering I (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - CNBT1313 - Concrete I (3)
    - CNBT1302 - Mechanical, Electrical & Plumbing Systems in Construction I (3)
    - CNBT1342 - Building Codes and Inspections (3)
    - CNBT1450 - Construction Technology II (4)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - CNBT1346 - Construction Estimating I (3)
    - CNBT1453 - Construction Technology III (4)
    - CNBT2342 - Construction Management I (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 4
13 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - CNBT1359 - Project Scheduling (3)
        - CNBT2439 - Construction Technology IV (4)
        - CNBT2305 - Building and Contracting (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 5
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)
    - ACGM3GED - Gen Ed Elective (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - CNBT2305 - Building and Contracting (3)

Pre/Corequisites

- CNBT 1450, CNBT 1453, CNBT 2439 Prerequisite(s): CNBT 1316
- CNBT 2305 Prerequisite(s): CNBT 2342

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - ANTH2346 - General Anthropology(3)
  - ECON1301 - Introduction to Economics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GEOG1302 - Human Geography(3)
  - GEOG1303 - World Regional Geography(3)
  - PSYC1100 - Learning Framework(1)
  - PSYC2301 - General Psychology(3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - HIST2312 - Western Civilization II(3)
  - HIST2321 - World Civilizations I(3)
  - SOCI1301 - Introduction to Sociology(3)
  - SOCI1306 - Social Problems(3)
  - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
  - BIOL1306 - Biology for Science Majors I (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL1308 - Biology for Non-Science Majors I(3)
  - BIOL1309 - Biology for Non-Science Majors II(3)
  - BIOL2301 - Anatomy & Physiology I (lecture)(3)
  - BIOL2302 - Anatomy & Physiology II (lecture)(3)
  - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
  - CHEM1305 - Introductory Chemistry I (lecture)(3)
  - CHEM1311 - General Chemistry I (lecture)(3)
  - CHEM1312 - General Chemistry II (lecture)(3)
  - MATH1314 - College Algebra (3 SCH version)(3)
  - MATH1316 - Plane Trigonometry(3)
  - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
  - MATH1342 - Elementary Statistical Methods(3)
  - PHYS1315 - Physical Science I (lecture)(3)
  - PHYS1317 - Physical Science II(3)
- Complete 1 General Education Elective as recommended by program
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2319 - American Minority Studies(3)
  - HUMA2323 - World Cultures(3)
  - PHIL1301 - Introduction to Philosophy(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2303 - Introduction to Formal Logic(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ARTS1301 - Art Appreciation(3)
  - ARTS2326 - Sculpture I(3)
  - ARTS2326 - Sculpture I(3)
  - MUSI1306 - Music Appreciation(3)

Business Management Technology

Description

Every business needs professionals to manage an office, administer payroll, balance books and hire employees to run a business. Our students receive the training needed to succeed in a career in office management and accounting. You can gain skills that 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 - Business Management Technology - Bookkeeping - Accounting Assistant CER1

Locations

Online - TSTC Connect

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - BUSG1301 - Introduction to Business (3)
  - MRKG1301 - Customer Relationship Management (3)
  - ITSC1309 - Integrated Software Applications I (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ACNT1325 - Principles of Accounting I (3)
  - BMGT1327 - Principles of Management (3)
  - POFI2301 - Word Processing (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ACNT1326 - Principles of Accounting II (3)
  - HRPO2301 - Human Resources Management (3)
  - POFI1349 - Spreadsheets (3)

Semester 4
6 Total Credits
keyboard_arrow_up

- Complete the following:
  - ACNT1311 - Introduction to Computerized Accounting (3)
  - ACNT1340 - Accounting and Business Ethics (3)

Degree Plan Credits **33**

Capstone

- Complete the following:
  - ACNT1311 - Introduction to Computerized Accounting (3)

Pre/Corequisites

- POFI 2301 Prerequisite(s): ITSC 1309
- ACNT 1326, ACNT 1311 Prerequisite(s): ACNT 1325
- POFI 1349 Prerequisite(s): ITSC 1309 or POFI 2301

Business Management Technology - Business Management Technology - Office Assistant CER1

<u>**Locations**</u>

Online - TSTC Connect

<u>**Program Requirements**</u>

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - BUSG1301 - Introduction to Business (3)
    - MRKG1301 - Customer Relationship Management (3)
    - ITSC1309 - Integrated Software Applications I (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ACNT1325 - Principles of Accounting I (3)
    - BMGT1327 - Principles of Management (3)
    - POFI2301 - Word Processing (3)

Semester 3
3 Total Credits
keyboard_arrow_up

- Complete the following:
    - POFI1349 - Spreadsheets (3)

Degree Plan Credits **21**

<u>**Capstone**</u>

- Complete the following:
    - POFI1349 - Spreadsheets (3)

<u>**Pre/Corequisites**</u>

- POFI 2301 Prerequisite(s): ITSC 1309
- POFI 1349 ITSC Prerequisite(s): 1309 or POFI 2301

Business Management Technology - Business Management Technology AAS

<u>**Locations**</u>

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - BUSG1301 - Introduction to Business (3)
    - MRKG1301 - Customer Relationship Management (3)
    - ITSC1309 - Integrated Software Applications I (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ACNT1325 - Principles of Accounting I (3)
  - BMGT1327 - Principles of Management (3)
  - POFI2301 - Word Processing (3)
  - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ACNT1326 - Principles of Accounting II (3)
  - HRPO2301 - Human Resources Management (3)
  - POFI1349 - Spreadsheets (3)
  - ACGM3SPH - Gen Ed Speech Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ACNT1311 - Introduction to Computerized Accounting (3)
  - ACNT1340 - Accounting and Business Ethics (3)
  - ITSW1310 - Introduction to Presentation Graphics Software (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - POFT2312 - Business Correspondence & Communication (3)
    - ACNT1329 - Payroll & Business Tax Accounting (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
  - Complete at least 3 credits from the following:
    - BUSG1315 - Small Business Operations (3)
    - POFT2380 - Cooperative Education - Administrative Assistant and Secretarial Science, General (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - BUSG1315 - Small Business Operations (3)

Pre/Corequisites

- ACNT 1326, ACNT 1311, ACNT 1329 Prerequisite(s): ACNT 1325
- POFI 1349, ITSW 1310 Prerequisite(s): ITSC 1309 or POFI 2301

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
    - SPCH1311 - Introduction to Speech Communication(3)
    - SPCH1315 - Public Speaking(3)
    - SPCH1318 - Interpersonal Communication(3)
    - SPCH1321 - Business & Professional Communication(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)

Business Management Technology - Business Management Technology CER2

<u>**Locations**</u>

Online - TSTC Connect

<u>**Program Requirements**</u>

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - BUSG1301 - Introduction to Business (3)
  - MRKG1301 - Customer Relationship Management (3)
  - ITSC1309 - Integrated Software Applications I (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ACNT1325 - Principles of Accounting I (3)
  - BMGT1327 - Principles of Management (3)
  - POFI2301 - Word Processing (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ACNT1326 - Principles of Accounting II (3)
  - HRPO2301 - Human Resources Management (3)
  - POFI1349 - Spreadsheets (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ACNT1311 - Introduction to Computerized Accounting (3)
  - ACNT1340 - Accounting and Business Ethics (3)
  - ITSW1310 - Introduction to Presentation Graphics Software (3)

Semester 5
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - POFT2312 - Business Correspondence & Communication (3)
  - BUSG1315 - Small Business Operations (3)
  - ACNT1329 - Payroll & Business Tax Accounting (3)

Degree Plan Credits **45**

<u>**Capstone**</u>

- Complete the following:
  - BUSG1315 - Small Business Operations (3)

<u>**Pre/Corequisites**</u>

- POFI 2301 Prerequisite(s): ITSC 1309
- ACNT 1326, ACNT 1311 Prerequisite(s): ACNT 1325
- POFI 1349, ITSW 1310 Prerequisite(s): ITSC 1309 or POFI 2301

Chemical Dependency Counseling

Description

The Chemical Dependency Counseling (CDC) 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 (veterans, adults and adolescents), inpatient or outpatient facilities, hospitals, peer support and peer recovery, as a Certified Family Partner, DWI education course instructor, (DOEP) Drug Offender Education course instructor with Texas Department of Licensing and Regulation and more.

The CDC program offers flexible learning through Performance-Based Education (PBE), designed to fit your busy schedule. In PBE courses, you demonstrate mastery of course competencies through assessments. At TSTC, the mastery level for technical courses is set at 80% or higher.

In PBE, weighted grading is only assigned to Mastery Assessments, with equal weight. Check for Understanding, labs, Practice and Apply activities may be assigned points to show a student's level of understanding, but these activities will have a weight of 0% in the final course grade.

The final course grade is averaged using all Mastery Assessments once all are completed; however, a student will automatically fail the course if all Mastery Assessments are not passed with a grade of 80% or higher.

For example, in a course with five Mastery Assessments, the student passes the first four with 100% each and then decides to skip the final Mastery Assessment. While the average of all five would traditionally work out to an 80% for the final course grade, PBE requires that students pass every Mastery Assessment with an 80% or higher to pass the course. In this example, the student would fail the course.

Deadline for Submitting Final Mastery Assessment Attempts

Your final Mastery Assessment attempt for the semester is due Wednesday at 5:00 PM CST the last week of the semester. This will allow your instructor the 2 business days to grade your assessment and provide feedback. Assessments that can be auto graded will close at 5:00 PM CST on the last Friday of the semester.

Mastery Assessment Grade Carry Over

To successfully complete a course, you must achieve the required mastery level on all Mastery Assessments. One key advantage of PBE is that if you do not complete a course within the semester, your Mastery Assessment scores will carry over, allowing you to pick up where you left off in the next term. Any attempts on that assessment from the previous semester will reset and start over with the first attempt in the new semester.

For the CDC program, you are allowed up to**three attempts** per Mastery Assessment and then a virtual meeting with your instructor will be required.

PBE Grading Scale:

A=90-100

B=80-89

F= Below 80

Lab attendance is not graded, but through course design it is utilized to guide students to good lab attendance practices and furthering a student's counseling skills.

Transfer credit shall be processed by the Office of the Registrar 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. In the case of a transfer credit dispute or appeal, the Associate Vice Chancellor for Instructional Alignment & Innovation or a 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. **Note: Programs in Health Sciences may have particular acceptance of academic course policies as outlined in their program application documentation or program handbook references.

Chemical Dependency Counseling - Chemical Dependency Counseling AAS

Locations

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - DAAC1319 - Introduction to Substance Use Disorders (3)
    - PSYC2301 - General Psychology (3)
    - PSYT1313 - Psychology of Personal Adjustment (3)
    - DAAC1305 - Co-Occurring Disorders (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DAAC1309 - Assessment of Substance Use Disorders (3)
        - DAAC1304 - Pharmacology of Substance Use Disorders (3)
        - DAAC1317 - Basic Counseling Skills (3)
        - DAAC2301 - Therapeutic Communities in a Criminal Justice Setting (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - DAAC1311 - Counseling Theories (3)
    - DAAC2343 - Current Issues (3)
    - DAAC2341 - Counseling of Substance Use Disorders (3)
    - DAAC2354 - Dynamics of Group Counseling (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CJSA1325 - Criminology (3)
    - ACGM3GED - Gen Ed Elective (3)
    - DAAC2306 - Substance Abuse Prevention I (3)
    - DAAC2307 - Family Intervention with Substance Use Disorders (3)

Semester 5
6 Total Credits
keyboard_arrow_up

- Complete the following:
    - DAAC2366 - Practicum (or Field Experience) - Substance Abuse/Addiction Counseling (3)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - DAAC2366 - Practicum (or Field Experience) - Substance Abuse/Addiction Counseling (3)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)
- Complete 1 General Education Elective as recommended by program
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture) (3)
    - BIOL1307 - Biology for Science Majors II (3)
    - BIOL1308 - Biology for Non-Science Majors I (3)
    - BIOL1309 - Biology for Non-Science Majors II (3)
    - BIOL2301 - Anatomy & Physiology I (lecture) (3)
    - BIOL2302 - Anatomy & Physiology II (lecture) (3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture) (3)
    - CHEM1311 - General Chemistry I (lecture) (3)
    - CHEM1312 - General Chemistry II (lecture) (3)
    - MATH1314 - College Algebra (3 SCH version) (3)
    - MATH1316 - Plane Trigonometry (3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning) (3)
    - MATH1342 - Elementary Statistical Methods (3)
    - PHYS1315 - Physical Science I (lecture) (3)
    - PHYS1317 - Physical Science II (3)

Chemical Dependency Counseling - Chemical Dependency Counseling CER1

<u>**Locations**</u>

Online - TSTC Connect

<u>**Program Requirements**</u>

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - DAAC1319 - Introduction to Substance Use Disorders (3)
    - PSYT1313 - Psychology of Personal Adjustment (3)
    - DAAC1305 - Co-Occurring Disorders (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - DAAC2301 - Therapeutic Communities in a Criminal Justice Setting (3)
    - DAAC1317 - Basic Counseling Skills (3)
    - DAAC1309 - Assessment of Substance Use Disorders (3)
    - DAAC1304 - Pharmacology of Substance Use Disorders (3)

Degree Plan Credits **21**

<u>**Capstone**</u>

- Complete the following:
    - DAAC2301 - Therapeutic Communities in a Criminal Justice Setting (3)

Chemical Dependency Counseling - Chemical Dependency Counseling CER2

<u>**Locations**</u>

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - DAAC1319 - Introduction to Substance Use Disorders (3)
  - PSYT1313 - Psychology of Personal Adjustment (3)
  - DAAC1305 - Co-Occurring Disorders (3)
  - PSYC2301 - General Psychology (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - DAAC1304 - Pharmacology of Substance Use Disorders (3)
  - DAAC1309 - Assessment of Substance Use Disorders (3)
  - DAAC1317 - Basic Counseling Skills (3)
  - DAAC2301 - Therapeutic Communities in a Criminal Justice Setting (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - DAAC2343 - Current Issues (3)
  - DAAC2341 - Counseling of Substance Use Disorders (3)
  - DAAC2354 - Dynamics of Group Counseling (3)
  - DAAC1311 - Counseling Theories (3)

Semester 4
6 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - DAAC2366 - Practicum (or Field Experience) - Substance Abuse/Addiction Counseling (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Degree Plan Credits **42**

Capstone

- Complete the following:
  - DAAC2366 - Practicum (or Field Experience) - Substance Abuse/Addiction Counseling (3)

Computer Networking & Systems Administration

Description

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 - Computer Networking & Systems Admin - Cloud Computing ATC

Locations

Online - TSTC Connect
Abilene
Marshall
North Texas
Waco

Program Requirements

Semester 1
8 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITNW1436 - Cloud Deployment & Infrastructure Management (4)
    - ITSC2425 - Advanced Linux (4)

Semester 2
8 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITNW2427 - Advanced Cloud Concepts (4)
    - ITNW2429 - Application Development for The Cloud (4)

Degree Plan Credits **16**

Capstone

- No capstone required

Pre/Corequisites

- ITSC 2425 Prerequisite(s): ITSC 1316
- ITNW 2427, ITNW 2429 Prerequisite(s): ITNW 1436

Computer Networking & Systems Administration - Computer Networking & Systems Admin - IT Support Tier I CER1

Locations

Online - TSTC Connect
Abilene
Marshall
North Texas
Waco
Williamson County

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITNW1308 - Implementing and Supporting Client Operating Systems (3)
    - ITNW1358 - Network+ (3)
    - ITSC1325 - Personal Computer Hardware (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITCC1314 - CCNA 1: Introduction to Networks (3)
    - ITNW1345 - Implementing Network Directory Services (3)
    - ITSC1316 - Linux Installation and Configuration (3)

Degree Plan Credits **18**

Capstone

- Complete the following:
    - ITCC1314 - CCNA 1: Introduction to Networks (3)
    - ITNW1345 - Implementing Network Directory Services (3)

Pre/Corequisites

- ITSC 1316 Prerequisite(s): ITNW 1358 or ITCC 1314

Computer Networking & Systems Administration - Computer Networking & Systems Admin - IT Support Tier II CER2

Locations

Online - TSTC Connect
Abilene
Marshall
North Texas
Waco
Williamson County

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITNW1308 - Implementing and Supporting Client Operating Systems (3)
    - ITNW1358 - Network+ (3)
    - ITSC1325 - Personal Computer Hardware (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITCC1314 - CCNA 1: Introduction to Networks (3)
    - ITNW1345 - Implementing Network Directory Services (3)
    - ITSC1316 - Linux Installation and Configuration (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITCC1344 - CCNA 2: Switching, Routing, and Wireless Essentials (3)
    - ITNW1313 - Computer Virtualization (3)
    - ITSY1342 - Information Technology Security (3)
    - ITNW2354 - Internet/Intranet Server (3)

Degree Plan Credits **30**

Capstone

- Complete the following:
    - ITCC1344 - CCNA 2: Switching, Routing, and Wireless Essentials (3)
    - ITNW2354 - Internet/Intranet Server (3)

Pre/Corequisites

- ITSC 1316 Prerequisite(s): ITNW 1358 or ITCC 1314
- ITCC 1344 Prerequisite(s): ITCC 1314
- ITSY 1342 Prerequisite(s): ITNW 1345 or ITNW 1354
- ITNW 2354 Prerequisite(s): ITNW 1345, ITSC 1316

Computer Networking & Systems Administration - Computer Networking & Systems Admin AAS

Locations

Online - TSTC Connect
Abilene
Marshall
North Texas
Waco
Williamson County

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITNW1308 - Implementing and Supporting Client Operating Systems (3)
  - ITNW1358 - Network+ (3)
  - ITSC1325 - Personal Computer Hardware (3)
  - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - ITCC1314 - CCNA 1: Introduction to Networks (3)
    - ITNW1345 - Implementing Network Directory Services (3)
    - ITSC1316 - Linux Installation and Configuration (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITCC1344 - CCNA 2: Switching, Routing, and Wireless Essentials (3)
  - ITNW1313 - Computer Virtualization (3)
  - ITSY1342 - Information Technology Security (3)
  - ITNW2354 - Internet/Intranet Server (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITCC2320 - CCNA 3: Enterprise Networking, Security , and Automation (3)
  - ITSE1329 - Programming Logic and Design (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
  - ACGM3GED - Gen Ed Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete at least 3 credits from the following:
    - ITNW1309 - Fundamentals of Cloud Computing (3)
    - ITCC2343 - Network Security (3)
  - Complete the following:
    - ITNW2335 - Network Troubleshooting and Support (3)
  - Complete at least 3 credits from the following:
    - ITSC2370 - Final Project-Systems Administration (3)
    - ITSC2386 - Internship - Computer and Information Sciences, General (3)
  - Complete the following:
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete at least 1 of the following:
    - ITSC2370 - Final Project-Systems Administration (3)
    - ITSC2386 - Internship - Computer and Information Sciences, General (3)

Pre/Corequisites

- ITSC 1316 Prerequisite(s): ITNW 1358 or ITCC 1314
- ITCC 1344 Prerequisite(s): ITCC 1314
- ITSY 1342 Prerequisite(s): ITNW 1345 or ITNW 1354
- ITCC 2320 Prerequisite(s): ITCC 1344
- ITNW 2354 Prerequisite(s): ITNW 1345, ITSC 1316
- ITNW 2335 Prerequisite(s): ITCC 2320, ITNW 2354

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  General Education Electives
    - ENGL1301 - Composition I(3)
    - ENGL1302 - Composition II(3)
    - ENGL2311 - Technical & Business Writing(3)
    - HIST2321 - World Civilizations I(3)
    - SPCH1315 - Public Speaking(3)
    - SPCH1318 - Interpersonal Communication(3)
    - SPCH1321 - Business & Professional Communication(3)
    - ARTS1301 - Art Appreciation(3)
    - ENGL2321 - British Literature(3)
    - ENGL2326 - American Literature (single-Semester Course)(3)
    - ENGL2341 - Forms of Literature(3)
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2323 - World Cultures(3)
    - MUSI1306 - Music Appreciation(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - SOCI1301 - Introduction to Sociology(3)
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)

- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1412 - General Chemistry II(4)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2319 - American Minority Studies(3)
  - HUMA2323 - World Cultures(3)
  - PHIL1301 - Introduction to Philosophy(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2303 - Introduction to Formal Logic(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ARTS1301 - Art Appreciation(3)
  - ARTS2326 - Sculpture I(3)
  - ARTS2326 - Sculpture I(3)
  - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - ANTH2346 - General Anthropology(3)
  - ECON1301 - Introduction to Economics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GEOG1302 - Human Geography(3)
  - GEOG1303 - World Regional Geography(3)
  - PSYC1100 - Learning Framework(1)
  - PSYC2301 - General Psychology(3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - HIST2312 - Western Civilization II(3)
  - HIST2321 - World Civilizations I(3)
  - SOCI1301 - Introduction to Sociology(3)
  - SOCI1306 - Social Problems(3)
  - SOCI2319 - Minority Studies I(3)

Computer Programming Technology

Description

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 database developer, mobile app developer, to software development.

Computer Programming Technology - Computer Programming Technology - Java Developer CER1

<u>**Locations**</u>

Online - TSTC Connect

<u>**Program Requirements**</u>

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITSE1302 - Computer Programming (3)
    - ITSE2309 - Database Programming (3)
    - ITSE1394 - Special Topics in Computer Science (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITSE1330 - Introduction to C# Programming (3)
    - ITSE1359 - Introduction to Scripting Languages (3)
    - ITSE2333 - Implementing a Database on Microsoft SQL Server (3)

Semester 3
6 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ITSE2353 - Advanced C# Programming (3)
    - Complete at least 3 credits from the following:
        - ITSE2317 - Java Programming (3)
        - ITSE1373 - Intro to Python (3)

Degree Plan Credits **24**

<u>**Capstone**</u>

- Complete the following:
    - ITSE2353 - Advanced C# Programming (3)

<u>**Pre/Corequisites**</u>

- ITSE 1330, ITSE 2317 Prerequisite(s): ITSE 1302
- ITSE 2333 Prerequisite(s): ITSE 2309
- ITSE 2353 Prerequisite(s): ITSE 1330, ITSE 2333

Computer Programming Technology - Computer Programming Technology - Mobile App Developer CER1

Locations

Online - TSTC Connect

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITSE1302 - Computer Programming (3)
  - ITSE2309 - Database Programming (3)
  - ITSE1394 - Special Topics in Computer Science (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITSE1330 - Introduction to C# Programming (3)
  - ITSE1359 - Introduction to Scripting Languages (3)
  - ITSE2333 - Implementing a Database on Microsoft SQL Server (3)

Semester 3
6 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITSE1333 - Mobile Applications Development (3)
  - ITSE2353 - Advanced C# Programming (3)

Semester 4
6 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITSE2359 - Advanced Computer Programming (3)
  - ITSE2343 - Advanced Mobile Programming (3)

Degree Plan Credits **30**

Capstone

- Complete the following:
  - ITSE2343 - Advanced Mobile Programming (3)

Pre/Corequisites

- ITSE 1330 Prerequisite(s): ITSE 1302
- ITSE 2333 Prerequisite(s): ITSE 2309
- ITSE 1333 Prerequisite(s): ITSE 1330
- ITSE 2353 Prerequisite(s): ITSE 1330, ITSE 2333
- ITSE 2359 Prerequisite(s): (ITSE 2353 or ITSE 2373), ITSE 2333
- ITSE 2343 Prerequisite(s): ITSE 1333

Computer Programming Technology - Computer Programming Technology - Software Developer CER2

Locations

Online - TSTC Connect

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITSE1302 - Computer Programming (3)
    - ITSE2309 - Database Programming (3)
    - ITSE1394 - Special Topics in Computer Science (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITSE2333 - Implementing a Database on Microsoft SQL Server (3)
    - ITSE1330 - Introduction to C# Programming (3)
    - ITSE1359 - Introduction to Scripting Languages (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ITSE1333 - Mobile Applications Development (3)
        - ITSE2317 - Java Programming (3)
    - Complete at least 3 credits from the following:
        - ITSE1373 - Intro to Python (3)
        - ITSE2353 - Advanced C# Programming (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ITSE2359 - Advanced Computer Programming (3)
        - ITSE2343 - Advanced Mobile Programming (3)
    - Complete at least 3 credits from the following:
        - INEW2338 - Advanced Java Programming (3)
        - ITSE2373 - Advanced Python (3)

Degree Plan Credits **36**

Capstone

- Complete the following:
    - ITSE2359 - Advanced Computer Programming (3)

Pre/Corequisites

- ITSE 2333 Prerequisite(s): ITSE 2309
- ITSE 1330, ITSE 2317, Prerequisite(s): ITSE 1302
- ITSE 1333 Prerequisite(s): ITSE 1330
- ITSE 2353 Prerequisite(s): ITSE 1330, ITSE 2333
- ITSE 2359 Prerequisite(s): ITSE 2353, ITSE 2333
- ITSE 2343 Prerequisite(s): ITSE 1333
- INEW 2338 Prerequisite(s): ITSE 2317
- ITSE 2373 Prerequisite(s): ITSE 1373

Computer Programming Technology - Computer Programming Technology AAS

Locations

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ITSE1302 - Computer Programming (3)
        - ITSE2309 - Database Programming (3)
        - ITSE1394 - Special Topics in Computer Science (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITSE1359 - Introduction to Scripting Languages (3)
    - ITSE1330 - Introduction to C# Programming (3)
    - ITSE2333 - Implementing a Database on Microsoft SQL Server (3)
    - ACGM3MTH - Gen Ed Mathematics Elective (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ITSE1333 - Mobile Applications Development (3)
        - ITSE2353 - Advanced C# Programming (3)
        - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
    - Complete at least 3 credits from the following:
        - ITSE2317 - Java Programming (3)
        - ITSE1373 - Intro to Python (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ITSE2343 - Advanced Mobile Programming (3)
        - INEW2330 - Comprehensive Software Project: Planning and Design (3)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - Complete at least 3 credits from the following:
        - INEW2338 - Advanced Java Programming (3)
        - ITSE2373 - Advanced Python (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 3 credits from the following:
        - INEW2332 - Comprehensive Software Project: Coding, Testing, and Implementation (3)
        - ITSE2386 - Internship - Computer Programming/Programmer, General (3)
    - Complete at least 3 credits from the following:
        - ITSE1307 - Introduction to C++ Programming (3)
        - ITSE1392 - Special Topics in Computer Programming (3)
    - Complete the following:
        - ITSE2359 - Advanced Computer Programming (3)
        - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete 1 of the following
  - Complete the following:
    - INEW2332 - Comprehensive Software Project: Coding, Testing, and Implementation (3)
  - Complete the following:
    - ITSE2386 - Internship - Computer Programming/Programmer, General (3)

Pre/Corequisites

- ITSE 1330, ITSE 2317, Prerequisite(s): ITSE 1302
- ITSE 2333 Prerequisite(s): ITSE 2309
- ITSE 1333 Prerequisite(s): ITSE 1330
- ITSE 2353 Prerequisite(s): ITSE 1330, ITSE 2333
- ITSE 2343 Prerequisite(s): ITSE 1333
- ITSE 2338 Prerequisite(s): ITSE 2317
- ITSE 2373 Prerequisite(s): ITSE 1373
- ITSE 2330 Prerequisite(s): ITSE 2333, ITSE 2353
- ITSE 2332 Prerequisite(s): INEW 2330
- ITSE 2386 Prerequisite(s): ITSE 2353 or ITSE 2373 or INEW 2338, ITSE 2333
- ITSE 1307, ITSE 1392 Prerequisite(s): ITSE 1330, ITSE 1373 or ITSE 2317
- ITSE 2359 Prerequisite(s): ITSE 2353, ITSE 2333

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Mathematics Elective
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1325 - Calculus for Business & Social Sciences(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - MATH1350 - Math - Teachers I Fundamentals of Math I(3)
    - MATH1351 - Fundamentals of Mathematics II(3)
    - MATH2312 - Pre-Calculus Math (3 SCH version)(3)
    - MATH2313 - Calculus I(3)
    - MATH2318 - Linear Algebra (3)
    - MATH2320 - Differential Equations (3 SCH version)(3)
    - MATH2342 - Elementary Statistical Methods(3)
    - MATH2313 - Calculus I(3)
    - MATH2414 - Calculus II (4 SCH version)(4)
    - MATH2415 - Calculus III (4 SCH version)(4)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective

- HUMA1301 - Introduction to Humanities I(3)
        - HUMA2319 - American Minority Studies(3)
        - HUMA2323 - World Cultures(3)
        - PHIL1301 - Introduction to Philosophy(3)
        - PHIL1304 - Introduction to World Religions(3)
        - PHIL2303 - Introduction to Formal Logic(3)
        - PHIL2306 - Introduction to Ethics(3)
        - ARTS1301 - Art Appreciation(3)
        - ARTS2326 - Sculpture I(3)
        - ARTS2326 - Sculpture I(3)
        - MUSI1306 - Music Appreciation(3)
  - Complete at least 1 courses from the following:
    keyboard_arrow_up
    General Education Electives
        - ENGL1301 - Composition I(3)
        - ENGL1302 - Composition II(3)
        - ENGL2311 - Technical & Business Writing(3)
        - HIST2321 - World Civilizations I(3)
        - SPCH1315 - Public Speaking(3)
        - SPCH1318 - Interpersonal Communication(3)
        - SPCH1321 - Business & Professional Communication(3)
        - ARTS1301 - Art Appreciation(3)
        - ENGL2321 - British Literature(3)
        - ENGL2326 - American Literature (single-Semester Course)(3)
        - ENGL2341 - Forms of Literature(3)
        - HUMA1301 - Introduction to Humanities I(3)
        - HUMA2323 - World Cultures(3)
        - MUSI1306 - Music Appreciation(3)
        - PHIL1304 - Introduction to World Religions(3)
        - PHIL2306 - Introduction to Ethics(3)
        - ECON2301 - Principles of Macroeconomics(3)
        - ECON2302 - Principles of Microeconomics(3)
        - GOVT2305 - Federal Government (Federal constitution & topics)(3)
        - GOVT2306 - Texas Government (Texas constitution & topics)(3)
        - HIST1301 - United States History I(3)
        - HIST1302 - United States History II(3)
        - PSYC2301 - General Psychology(3)
        - PSYC2314 - Lifespan Growth & Development(3)
        - SOCI1301 - Introduction to Sociology(3)
        - BIOL1306 - Biology for Science Majors I (lecture)(3)
        - BIOL1307 - Biology for Science Majors II(3)
        - BIOL1308 - Biology for Non-Science Majors I(3)
        - BIOL1309 - Biology for Non-Science Majors II(3)
        - BIOL2301 - Anatomy & Physiology I (lecture)(3)
        - BIOL2302 - Anatomy & Physiology II (lecture)(3)
        - CHEM1305 - Introductory Chemistry I (lecture)(3)
        - CHEM1311 - General Chemistry I (lecture)(3)
        - CHEM1412 - General Chemistry II(4)
        - MATH1314 - College Algebra (3 SCH version)(3)
        - MATH1316 - Plane Trigonometry(3)
        - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
        - MATH1342 - Elementary Statistical Methods(3)
        - PHYS1315 - Physical Science I (lecture)(3)
        - PHYS1315 - Physical Science I (lecture)(3)

Computer Science

Description

The computer science degree is 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.

First Year Seminar

Students are required to enroll in the First-Year Seminar course, TSTC 1101 College Success, 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 Catalog and Student Handbook under 07. First Steps at TSTC section 04. First Year Seminar Courses (TSTC 1101 and TSTC 1102).

Computer Science - Computer Science AS

Locations

Harlingen

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - COSC1336 - Programming Fundamentals I (3)
    - ENGL1301 - Composition I (3)
  - Complete at least 3 credits from the following:
    - MATH2312 - Pre-Calculus Math (3 SCH version) (3)
    - MATH1316 - Plane Trigonometry (3)
  - Complete the following:
    - ACGM3CAR - Creative Arts Elective (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
  - COSC1337 - Programming Fundamentals II (3)
  - ENGL1302 - Composition II (3)
  - GOVT2305 - Federal Government (Federal constitution & topics) (3)
  - MATH2413 - Calculus I (4 SCH version) (4)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - COSC2325 - Computer Organization (3)
  - GOVT2306 - Texas Government (Texas constitution & topics) (3)
  - ACGM3CAOB - Component Area Option (3)
  - ACGM3LPC - Language, Philosophy and Culture Elective (3)

Semester 4
10 Total Credits
keyboard_arrow_up

- Complete the following:
  - COSC2336 - Programming Fundamentals III (3)
  - HIST1301 - United States History I (3)
  - PHYS1301 - College Physics I (lecture) (3)
  - PHYS1101 - College Physics Laboratory I (1)

Semester 5
13 Total Credits
keyboard_arrow_up

- Complete the following:
  - HIST1302 - United States History II (3)
  - PHYS1302 - College Physics II (lecture) (3)
  - PHYS1102 - College Physics Lab II (1)
  - SPCHX3XX - Gen Ed Speech Elective (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - COSC2336 - Programming Fundamentals III (3)

Pre/Corequisites

- MATH 2312 Prerequisite(s): MATH 1314 or MATH 1316
- COSC 1337, COSC 2325 Prerequisite(s): COSC 1336
- ENGL 1302 Prerequisite(s): ENGL 1301
- MATH 2413 Prerequisite(s): (MATH 1314 and MATH 1316) or MATH 2312 or MATH 2412
- COSC 2336 Prerequisite(s): COSC 1337
- PHYS 1301 Prerequisite(s): MATH 1314, MATH 1316 or MATH 2312 or MATH 2412 (Prerequisite), PHYS 1101 (Corequisite)
- PHYS 1101 Prerequisite(s): PHYS 1301 (Corequisite)
- PHYS 1302 Prerequisite(s): PHYS 1301, PHYS 1101 or PHYS 1401 (Prerequisite), PHYS 1102 (Corequisite)
- PHYS 1102 Prerequisite(s): PHYS 1302 (Corequisite)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Creative Arts Elective
    - ARTS1301 - Art Appreciation (3)
    - MUSI1306 - Music Appreciation (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Component Area Option A (for Computer Science AS)
    - ENGL2321 - British Literature (3)
    - ENGL2326 - American Literature (single-Semester Course) (3)
    - ENGL2331 - World Literature (3)
    - PSYC2314 - Lifespan Growth & Development (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Language, Philosophy & Culture Elective
    - ENGL2321 - British Literature (3)
    - ENGL2326 - American Literature (single-Semester Course) (3)
    - ENGL2331 - World Literature (3)
    - PHIL1304 - Introduction to World Religions (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
    - SPCH1311 - Introduction to Speech Communication (3)
    - SPCH1315 - Public Speaking (3)
    - SPCH1318 - Interpersonal Communication (3)
    - SPCH1321 - Business & Professional Communication (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics) (3)
    - GOVT2306 - Texas Government (Texas constitution & topics) (3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - HIST1301 - United States History I (3)
    - HIST1302 - United States History II (3)
    - HIST2312 - Western Civilization II (3)
    - HIST2321 - World Civilizations I (3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I (3)

Culinary Arts

<u>**Description**</u>

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 Arts 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 - Culinary Arts - Culinarian CER2

Locations

Waco

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - CHEF1305 - Sanitation and Safety (3)
  - IFWA1401 - Food Preparation I (4)
  - IFWA1218 - Nutrition for the Food Service Professional (2)

Semester 2
10 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - IFWA1427 - Food Preparation II (4)
    - PSTR1301 - Fundamentals of Baking (3)
  - Complete at least 3 credits from the following:
    - RSTO1304 - Dining Room Service (3)
    - RSTO1380 - Cooperative Education - Restaurant, Culinary, and Catering Management/Manager (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - IFWA1217 - Food Production and Planning (2)
  - PSTR2431 - Advanced Pastry Shop (4)
  - RSTO1313 - Hospitality Supervision (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - IFWA2341 - Specialized Food Preparation (3)
  - RSTO2301 - Principles of Food & Beverage Controls (3)
  - RSTO1325 - Purchasing for Hospitality Operations (3)

Degree Plan Credits **37**

Capstone

- Complete the following:
  - IFWA2341 - Specialized Food Preparation (3)

Pre/Corequisites

- IFWA 1427, PSTR 1301, RSTO 1304, RSTO 1480 Prerequisite(s): (CHEF 1205 or CHEF 1305), IFWA 1401
- PSTR 2431 Prerequisite(s): PSTR 1301
- IFWA 2341 Prerequisite(s): IFWA 1427, PSTR 2431

Culinary Arts - Culinary Arts - Culinary Assistant CER1

Locations

Waco

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - CHEF1305 - Sanitation and Safety (3)
    - IFWA1401 - Food Preparation I (4)
    - IFWA1218 - Nutrition for the Food Service Professional (2)

Semester 2
10 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - IFWA1427 - Food Preparation II (4)
        - PSTR1301 - Fundamentals of Baking (3)
    - Complete at least 3 credits from the following:
        - RSTO1304 - Dining Room Service (3)
        - RSTO1380 - Cooperative Education - Restaurant, Culinary, and Catering Management/Manager (3)

Degree Plan Credits **19**

Capstone

- Complete the following:
    - IFWA1427 - Food Preparation II (4)

Pre/Corequisites

- IFWA 1427, PSTR 1301, RSTO 1304, RSTO 1380 Prerequisite(s): CHEF1205 or CHEF 1305, IFWA 1401

Culinary Arts - Culinary Arts - Culinary Specialist CER1

Locations

Waco

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - CHEF1305 - Sanitation and Safety (3)
    - IFWA1401 - Food Preparation I (4)
    - IFWA1218 - Nutrition for the Food Service Professional (2)

Semester 2
10 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - IFWA1427 - Food Preparation II (4)
        - PSTR1301 - Fundamentals of Baking (3)
    - Complete at least 3 credits from the following:
        - RSTO1304 - Dining Room Service (3)
        - RSTO1380 - Cooperative Education - Restaurant, Culinary, and Catering Management/Manager (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - IFWA1217 - Food Production and Planning (2)
    - PSTR2431 - Advanced Pastry Shop (4)
    - RSTO1313 - Hospitality Supervision (3)

Degree Plan Credits **28**

Capstone

- Complete the following:
    - IFWA1427 - Food Preparation II (4)
    - PSTR2431 - Advanced Pastry Shop (4)

Pre/Corequisites

- IFWA 1427, PSTR 1301, RSTO 1304, RSTO 1380 Prerequisite(s): CHEF 1305, IFWA 1401
- PSTR 2431 Prerequisite(s): PSTR 1301

Culinary Arts - Culinary Arts AAS

Locations

Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CHEF1305 - Sanitation and Safety (3)
    - IFWA1401 - Food Preparation I (4)
    - IFWA1218 - Nutrition for the Food Service Professional (2)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - IFWA1427 - Food Preparation II (4)
        - PSTR1301 - Fundamentals of Baking (3)
        - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)
    - Complete at least 3 credits from the following:
        - RSTO1304 - Dining Room Service (3)
        - RSTO1380 - Cooperative Education - Restaurant, Culinary, and Catering Management/Manager (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - IFWA1217 - Food Production and Planning (2)
        - PSTR2431 - Advanced Pastry Shop (4)
        - RSTO1313 - Hospitality Supervision (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - IFWA2341 - Specialized Food Preparation (3)
    - RSTO2301 - Principles of Food & Beverage Controls (3)
    - RSTO1325 - Purchasing for Hospitality Operations (3)
    - ACGM3GED - Gen Ed Elective (3)

Semester 5
11 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 5 credits from the following:
        - RSTO2505 - Management of Food Production and Service (5)
        - RSTO1680 - Cooperative Education - Restaurant, Culinary, and Catering Management/Manager (6)
    - Complete the following:
        - HAMG2305 - Hospitality Management and Leadership (3)
        - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - HAMG2305 - Hospitality Management and Leadership (3)

Pre/Corequisites

- IFWA 1427, PSTR 1301, RSTO 1304, RSTO 1480 Prerequisite(s): (CHEF 1205 or CHEF 1305), IFWA 1401
- PSTR 2431 Prerequisite(s): PSTR 1301
- IFWA 2341 Prerequisite(s): IFWA 1427, PSTR 2431
- RSTO 2505, RSTO 1680 Prerequisite(s): (CHEF 1441, CHEF 1445) or IFWA 2341, IFWA 1217, RSTO 1313
- HAMG 2305 Prerequisite(s): RSTO 1313

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  General Education Electives
    - ENGL1301 - Composition I(3)
    - ENGL1302 - Composition II(3)
    - ENGL2311 - Technical & Business Writing(3)
    - HIST2321 - World Civilizations I(3)
    - SPCH1315 - Public Speaking(3)
    - SPCH1318 - Interpersonal Communication(3)
    - SPCH1321 - Business & Professional Communication(3)
    - ARTS1301 - Art Appreciation(3)
    - ENGL2321 - British Literature(3)
    - ENGL2326 - American Literature (single-Semester Course)(3)
    - ENGL2341 - Forms of Literature(3)
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2323 - World Cultures(3)
    - MUSI1306 - Music Appreciation(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - HIST1301 - United States History I(3)

- HIST1302 - United States History II(3)
- PSYC2301 - General Psychology(3)
- PSYC2314 - Lifespan Growth & Development(3)
- SOCI1301 - Introduction to Sociology(3)
- BIOL1306 - Biology for Science Majors I (lecture)(3)
- BIOL1307 - Biology for Science Majors II(3)
- BIOL1308 - Biology for Non-Science Majors I(3)
- BIOL1309 - Biology for Non-Science Majors II(3)
- BIOL2301 - Anatomy & Physiology I (lecture)(3)
- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1412 - General Chemistry II(4)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
  - BIOL1306 - Biology for Science Majors I (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL1308 - Biology for Non-Science Majors I(3)
  - BIOL1309 - Biology for Non-Science Majors II(3)
  - BIOL2301 - Anatomy & Physiology I (lecture)(3)
  - BIOL2302 - Anatomy & Physiology II (lecture)(3)
  - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
  - CHEM1305 - Introductory Chemistry I (lecture)(3)
  - CHEM1311 - General Chemistry I (lecture)(3)
  - CHEM1312 - General Chemistry II (lecture)(3)
  - MATH1314 - College Algebra (3 SCH version)(3)
  - MATH1316 - Plane Trigonometry(3)
  - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
  - MATH1342 - Elementary Statistical Methods(3)
  - PHYS1315 - Physical Science I (lecture)(3)
  - PHYS1317 - Physical Science II(3)

Cybersecurity

Description

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 - Cybersecurity Technology - Digital Forensics ATC

Locations

Online - TSTC Connect

Program Requirements

Semester 1
8 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITDF2420 - Digital Forensics Collection (4)
    - ITDF2425 - Digital Forensics Tools (4)

Semester 2
8 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITDF2430 - Digital Forensics Analysis (4)
    - ITDF2435 - Comprehensive Digital Forensics Project (4)

Degree Plan Credits **16**

Pre/Corequisites

- ITDF 2420 Prerequisite(s): AAS Degree - Security
- ITDF 2425 Prerequisite(s): ITDF 2420
- ITDF 2430 Prerequisite(s): ITDF 2425
- ITDF 2435 Prerequisite(s): ITDF 2430

Cybersecurity - Cybersecurity Technology AAS

Locations

Online - TSTC Connect
Williamson County
Harlingen
Fort Bend County
Marshall
North Texas
Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITNW1358 - Network+ (3)
  - ITNW1308 - Implementing and Supporting Client Operating Systems (3)
  - ITSC1325 - Personal Computer Hardware (3)
  - ENGL1301 - Composition I (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITDF1300 - Introduction to Digital Forensics (3)
  - ITNW1354 - Implementing and Supporting Servers (3)
  - ITNW2321 - Networking with TCP/IP (3)
  - ACGM3MTH - Gen Ed Mathematics Elective (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - ITSY1374 - Secure Linux Administration (3)
    - ITNW2312 - Routers (3)
    - ACGM3GED - Gen Ed Elective (3)
  - Complete at least 3 credits from the following:
    - ITNW2355 - Server Virtualization (3)
    - ITNW1313 - Computer Virtualization (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITSY1342 - Information Technology Security (3)
  - ITSY1375 - Security Scripting (3)
  - ITSY2345 - Network Defense and Countermeasures (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete at least 3 credits from the following:
    - ITNW2350 - Enterprise Network (3)
    - ITNW2380 - Cooperative Education - Computer Systems Networking and Telecommunications (3)
  - Complete the following:
    - ITSY2301 - Firewalls and Network Security (3)
    - ITSY2359 - Security Assessment and Auditing (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - ITNW2350 - Enterprise Network (3)
  - ITSY2359 - Security Assessment and Auditing (3)

Pre/Corequisites

- ITDF 1300 Prerequisite(s): ITSC 1325
- ITNW 2321 Prerequisite(s): ITNW 1325 or ITNW 1358
- ITSY 1374 Prerequisite(s): ITNW 1354
- ITNW 2312 Prerequisite(s): ITNW 2321
- ITNW 2355 Prerequisite(s): ITNW 1354, ITSC 1325
- ITSY 1342 Prerequisite(s): ITNW 1354
- ITSY 1342 Prerequisite(s): ITNW 1354
- ITSY 1375 Prerequisite(s): ITSC 1325, ITSY 1374
- ITSY 2345 Prerequisite(s): ITNW 2321
- ITNW 2350 Prerequisite(s): ITSY 1342
- ITNW 2380 Prerequisite(s): ITSY 2345 or ITSY 2301
- ITSY 2301 Prerequisite(s): ITNW 2312
- ITSY 2359 Prerequisite(s): ITSY 1342, ITSY 1374

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Mathematics Elective
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1325 - Calculus for Business & Social Sciences(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - MATH1350 - Math - Teachers I Fundamentals of Math I(3)
    - MATH1351 - Fundamentals of Mathematics II(3)
    - MATH2312 - Pre-Calculus Math (3 SCH version)(3)
    - MATH2313 - Calculus I(3)
    - MATH2318 - Linear Algebra(3)
    - MATH2320 - Differential Equations (3 SCH version)(3)
    - MATH2342 - Elementary Statistical Methods(3)
    - MATH2313 - Calculus I(3)
    - MATH2414 - Calculus II (4 SCH version)(4)
    - MATH2415 - Calculus III (4 SCH version)(4)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  General Education Electives
    - ENGL1301 - Composition I(3)
    - ENGL1302 - Composition II(3)
    - ENGL2311 - Technical & Business Writing(3)
    - HIST2321 - World Civilizations I(3)
    - SPCH1315 - Public Speaking(3)
    - SPCH1318 - Interpersonal Communication(3)
    - SPCH1321 - Business & Professional Communication(3)
    - ARTS1301 - Art Appreciation(3)
    - ENGL2321 - British Literature(3)
    - ENGL2326 - American Literature (single-Semester Course)(3)
    - ENGL2341 - Forms of Literature(3)
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2323 - World Cultures(3)
    - MUSI1306 - Music Appreciation(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - SOCI1301 - Introduction to Sociology(3)
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)

- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1412 - General Chemistry II(4)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)

Cybersecurity - Cybersecurity Technology CER1

Locations

Online - TSTC Connect
Williamson County
Harlingen
Fort Bend County
Marshall
North Texas
Waco

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITNW1358 - Network+ (3)
    - ITNW1308 - Implementing and Supporting Client Operating Systems (3)
    - ITSC1325 - Personal Computer Hardware (3)

Semester 2
6 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITDF1300 - Introduction to Digital Forensics (3)
    - ITNW1354 - Implementing and Supporting Servers (3)

Degree Plan Credits **15**

Capstone

- Complete the following:
    - ITDF1300 - Introduction to Digital Forensics (3)

Pre/Corequisites

- ITDF 1300 Prerequisite(s): ITSC 1325

Cybersecurity - Cybersecurity Technology CER2

Locations

Online - TSTC Connect
Williamson County
Fort Bend County
Harlingen
Marshall
North Texas
Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITNW1358 - Network+ (3)
    - ITNW1308 - Implementing and Supporting Client Operating Systems (3)
    - ITSC1325 - Personal Computer Hardware (3)
    - ITNW1354 - Implementing and Supporting Servers (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ITDF1300 - Introduction to Digital Forensics (3)
        - ITNW2321 - Networking with TCP/IP (3)
        - ITSY1374 - Secure Linux Administration (3)
    - Complete at least 3 credits from the following:
        - ITNW2355 - Server Virtualization (3)
        - ITNW1313 - Computer Virtualization (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITNW2312 - Routers (3)
    - ITSY1342 - Information Technology Security (3)
    - ITSY1375 - Security Scripting (3)
    - ITSY2345 - Network Defense and Countermeasures (3)

Degree Plan Credits **36**

Capstone

- Complete the following:
    - ITSY2345 - Network Defense and Countermeasures (3)

Pre/Corequisites

- ITDF 1300 Prerequisite(s): ITSC 1325
- ITNW 2321 Prerequisite(s): ITNW 1325 or ITNW 1358
- ITSY 1374 Prerequisite(s): ITNW 1354
- ITNW 2355 Prerequisite(s): ITNW 1354, ITSC 1325
- ITNW 2312 Prerequisite(s): ITNW 1325 or ITNW 1358
- ITSY 1342 Prerequisite(s): ITNW 1345 or ITNW 1354
- ITSY 1375 Prerequisite(s): ITSY 1374, ITSC 1325
- ITSY 2345 Prerequisite(s): ITNW 2321

Dental Hygiene

Description

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 our modern and innovative 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.

Grading Scale

A = 100-93
B = 92-86
C = 85-78
D = 77-70
F = 69-0

NOTE: Students must maintain 78% (C) or better in all program classes in order to advance to the next semester. A grade of "D" or "F" will not be accepted in the Dental Hygiene program and will not be acceptable for program advancement.

Dental hygiene treatment is a very important part of the overall health of a patient. Dental Hygiene students are challenged to maintain very high standards in the training that they receive in our program. The Dental Hygiene National Board Exam is required for licensure as a Registered Dental Hygienist with a passing score of 75%. Therefore, the students must maintain at least a 78% (C) in all dental hygiene courses, didactic and lab, to be prepared for the National Board Exam, and to successfully advance through the program. Students who fail any program course(s) will be dismissed, and may be given the opportunity to reapply and/or repeat the program in full.

Transfer credit shall be processed by the Office of the Registrar 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. In the case of a transfer credit dispute or appeal, the Associate Vice Chancellor for Instructional Alignment & Innovation or a 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. **Note: Programs in Health Sciences may have particular acceptance of academic course policies as outlined in their program application documentation or program handbook references.

Dental Hygiene - Dental Hygiene AAS

Locations

Harlingen

Program Requirements

Semester 1
14 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete at least 4 credits from the following:
    - BIOL2401 - Anatomy & Physiology I (lecture + lab) (4)
    - BIOL2101 - Anatomy & Physiology I (lab) (1)
    - BIOL2301 - Anatomy & Physiology I (lecture) (3)
  - Complete at least 4 credits from the following:
    - CHEM1405 - Introductory Chemistry I (4)

- ■ CHEM1105 - Introductory Chemistry Laboratory I (lab) (1)
- ■ CHEM1305 - Introductory Chemistry I (lecture) (3)
- ○ Complete the following:
  - ■ ENGL1301 - Composition I (3)
  - ■ SPCHX3XX - Gen Ed Speech Elective (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete all of the following
  - ○ Complete the following:
    - ■ DHYG1227 - Preventive Dental Hygiene Care (2)
    - ■ DHYG1301 - Orofacial Anatomy, Histology & Embryology (3)
    - ■ DHYG1331 - Preclinical Dental Hygiene (3)
    - ■ DHYG1304 - Dental Radiology (3)
  - ○ Complete at least 4 credits from the following:
    - ■ BIOL2402 - Anatomy & Physiology II (lecture + lab) (4)
    - ■ BIOL2102 - Anatomy & Physiology II (lab) (1)
    - ■ BIOL2302 - Anatomy & Physiology II (lecture) (3)

Semester 3
10 Total Credits
keyboard_arrow_up

- Complete all of the following
  - ○ Complete the following:
    - ■ DHYG1211 - Periodontology (2)
    - ■ DHYG1260 - Clinical - Dental Hygiene/Hygienist (2)
    - ■ DHYG2201 - Dental Hygiene Care I (2)
  - ○ Complete at least 4 credits from the following:
    - ■ BIOL2420 - Microbiology for Non-Science Majors (lecture + lab) (4)
    - ■ BIOL2120 - Microbiology for Non-Science Majors Laboratory (lab) (1)
    - ■ BIOL2320 - Microbiology for Non-Science Majors (lecture) (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ○ DHYG1235 - Pharmacology for the Dental Hygienist (2)
  - ○ DHYG1261 - Clinical - Dental Hygiene/Hygienist (2)
  - ○ DHYG1219 - Dental Materials (2)
  - ○ BIOL1322 - Nutrition & Diet Therapy (3)

Semester 5
10 Total Credits
keyboard_arrow_up

- Complete the following:
  - ○ DHYG1215 - Community Dentistry (2)
  - ○ DHYG1239 - General and Oral Pathology (2)
  - ○ DHYG2360 - Clinical - Dental Hygiene/Hygienist (3)
  - ○ PSYC2301 - General Psychology (3)

Semester 6
10 Total Credits
keyboard_arrow_up

- Complete the following:
  - ○ DHYG2153 - Dental Hygiene Practice (1)
  - ○ DHYG2361 - Clinical - Dental Hygiene/Hygienist (3)
  - ○ ACGM3GED - Gen Ed Elective (3)
  - ○ SOCI1301 - Introduction to Sociology (3)

Degree Plan Credits **68**

Capstone

- Complete the following:
    - DHYG2361 - Clinical - Dental Hygiene/Hygienist (3)

Pre/Corequisites

- DHYG 1260 Prerequisite(s): DHYG 1331
- DHYG 1261 Prerequisite(s): DHYG 1260
- DHYG 2360 Prerequisite(s): DHYG 1261
- DHYG 2361 Prerequisite(s): DHYG 2360

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
    - SPCH1311 - Introduction to Speech Communication (3)
    - SPCH1315 - Public Speaking (3)
    - SPCH1318 - Interpersonal Communication (3)
    - SPCH1321 - Business & Professional Communication (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)

Diesel Equipment Technology

Description

TSTC's Diesel Equipment Technology program offers several avenues of entry into the workforce: Off-Highway Equipment, Heavy Truck, and John Deere. TSTC's field-experienced faculty members work closely with 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. TSTC students learn from skilled craftsmen who have field experience. For quicker entry into the industry, certificates are also available.

Diesel Equipment Technology - Diesel Equipment Technology - Heavy Truck AAS

Locations

Waco
Fort Bend County
Sweetwater
North Texas
Abilene
Harlingen

Program Requirements

Semester 1
16 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - DEMR1305 - Basic Electrical Systems (3)
    - DEMR1371 - Chassis I (3)
    - DEMR1375 - Introduction to Medium Heavy-Duty Truck and Equipment (3)
    - DEMR1410 - Diesel Engine Testing and Repair I (4)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Semester 2
16 Total Credits
keyboard_arrow_up

- Complete the following:
  - DEMR1321 - Power Train I (3)
  - DEMR1316 - Basic Hydraulics (3)
  - DEMR2332 - Electronic Controls (3)
  - DEMR1406 - Diesel Engine I (4)
  - ACGM3MTH - Gen Ed Mathematics Elective (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - DEMR1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair (3)
  - DEMR1372 - Chassis II (3)
  - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)
  - DEMR2339 - Advanced Electrical Systems (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 4
13 Total Credits
keyboard_arrow_up

- Complete the following:
  - DEMR1447 - Power Train II (4)
  - DEMR2370 - Hybrid and Electric Vehicle Systems (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
  - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
  - BIOL1306 - Biology for Science Majors I (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL1308 - Biology for Non-Science Majors I(3)
  - BIOL1309 - Biology for Non-Science Majors II(3)
  - BIOL2301 - Anatomy & Physiology I (lecture)(3)
  - BIOL2302 - Anatomy & Physiology II (lecture)(3)
  - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
  - CHEM1305 - Introductory Chemistry I (lecture)(3)
  - CHEM1311 - General Chemistry I (lecture)(3)

- CHEM1312 - General Chemistry II (lecture)(3)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1317 - Physical Science II(3)

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - ANTH2346 - General Anthropology(3)
  - ECON1301 - Introduction to Economics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GEOG1302 - Human Geography(3)
  - GEOG1303 - World Regional Geography(3)
  - PSYC1100 - Learning Framework(1)
  - PSYC2301 - General Psychology(3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - HIST2312 - Western Civilization II(3)
  - HIST2321 - World Civilizations I(3)
  - SOCI1301 - Introduction to Sociology(3)
  - SOCI1306 - Social Problems(3)
  - SOCI2319 - Minority Studies I(3)

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2319 - American Minority Studies(3)
  - HUMA2323 - World Cultures(3)
  - PHIL1301 - Introduction to Philosophy(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2303 - Introduction to Formal Logic(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ARTS1301 - Art Appreciation(3)
  - ARTS2326 - Sculpture I(3)
  - ARTS2326 - Sculpture I(3)
  - MUSI1306 - Music Appreciation(3)

- Complete at least courses from the following:
  keyboard_arrow_up
  General Education Electives
  - ENGL1301 - Composition I(3)
  - ENGL1302 - Composition II(3)
  - ENGL2311 - Technical & Business Writing(3)
  - HIST2321 - World Civilizations I(3)
  - SPCH1315 - Public Speaking(3)
  - SPCH1318 - Interpersonal Communication(3)
  - SPCH1321 - Business & Professional Communication(3)
  - ARTS1301 - Art Appreciation(3)
  - ENGL2321 - British Literature(3)
  - ENGL2326 - American Literature (single-Semester Course)(3)
  - ENGL2341 - Forms of Literature(3)
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2323 - World Cultures(3)
  - MUSI1306 - Music Appreciation(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - PSYC2301 - General Psychology(3)

- PSYC2314 - Lifespan Growth & Development(3)
- SOCI1301 - Introduction to Sociology (3)
- BIOL1306 - Biology for Science Majors I (lecture)(3)
- BIOL1307 - Biology for Science Majors II(3)
- BIOL1308 - Biology for Non-Science Majors I(3)
- BIOL1309 - Biology for Non-Science Majors II(3)
- BIOL2301 - Anatomy & Physiology I (lecture)(3)
- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1412 - General Chemistry II(4)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)

Diesel Equipment Technology - Diesel Equipment Technology - Heavy Truck CER1

<u>**Locations**</u>

Waco
Fort Bend County
Sweetwater
North Texas
Abilene
Harlingen

<u>**Program Requirements**</u>

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1305 - Basic Electrical Systems (3)
    - DEMR1371 - Chassis I (3)
    - DEMR1375 - Introduction to Medium Heavy-Duty Truck and Equipment (3)
    - DEMR1410 - Diesel Engine Testing and Repair I (4)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1321 - Power Train I (3)
    - DEMR1316 - Basic Hydraulics (3)
    - DEMR2332 - Electronic Controls (3)
    - DEMR1406 - Diesel Engine I (4)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair (3)
    - DEMR1372 - Chassis II (3)
    - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)
    - DEMR2339 - Advanced Electrical Systems (3)

Degree Plan Credits **38**

<u>**Capstone**</u>

- Complete the following:
    - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)

<u>**Pre/Corequisites**</u>

- DEMR 2332 Prerequisite(s): DEMR 1305
- DEMR 1406 Prerequisite(s): DEMR 1410
- DEMR 1372 Prerequisite(s): DEMR 1371
- DEMR 2334 Prerequisite(s): DEMR 1410
- DEMR 2339 Prerequisite(s): DEMR 2332 (Pre or Co-req)

Diesel Equipment Technology - Diesel Equipment Technology - Heavy Truck CER2

<u>**Locations**</u>

Waco
Fort Bend County
Sweetwater
North Texas
Abilene
Harlingen

<u>**Program Requirements**</u>

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1305 - Basic Electrical Systems (3)
    - DEMR1371 - Chassis I (3)
    - DEMR1375 - Introduction to Medium Heavy-Duty Truck and Equipment (3)
    - DEMR1410 - Diesel Engine Testing and Repair I (4)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1321 - Power Train I (3)
    - DEMR1316 - Basic Hydraulics (3)
    - DEMR2332 - Electronic Controls (3)
    - DEMR1406 - Diesel Engine I (4)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair (3)
    - DEMR1372 - Chassis II (3)
    - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)
    - DEMR2339 - Advanced Electrical Systems (3)

Semester 4
7 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1447 - Power Train II (4)
    - DEMR2370 - Hybrid and Electric Vehicle Systems (3)

Degree Plan Credits **45**

<u>**Capstone**</u>

- Complete the following:
    - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)

<u>**Pre/Corequisites**</u>

- DEMR 2332 Prerequisite(s): DEMR 1305
- DEMR 1406 Prerequisite(s): DEMR 1410
- DEMR 1372 Prerequisite(s): DEMR 1371
- DEMR 2334 Prerequisite(s): DEMR 1410
- DEMR 2339 Prerequisite(s): DEMR 2332

Diesel Equipment Technology - Diesel Equipment Technology - John Deere AAS

Locations

Waco

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
  - DEMR1375 - Introduction to Medium Heavy-Duty Truck and Equipment (3)
  - DEMR1305 - Basic Electrical Systems (3)
  - DEMR1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair (3)
  - DEMR1410 - Diesel Engine Testing and Repair I (4)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
  - DEMR1406 - Diesel Engine I (4)
  - DEMR2332 - Electronic Controls (3)
  - DEMR1321 - Power Train I (3)
  - DEMR1316 - Basic Hydraulics (3)

Semester 3
16 Total Credits
keyboard_arrow_up

- Complete the following:
  - DEMR2335 - Advanced Hydraulics (3)
  - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)
  - DEMR2344 - Automatic Power Shift and Hydrostatic Transmissions II (3)
  - AGME1353 - Harvesting Equipment (3)
  - HEMR1401 - Tracks and Undercarriages (4)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - DEMR1380 - Cooperative Education - Diesel Mechanics Technology/Technician (3)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Semester 5
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
  - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)

Pre/Corequisites

- DEMR 1406 Prerequisite(s): DEMR 1410
- DEMR 2332 Prerequisite(s): DEMR 1305
- DEMR 2335 Prerequisite(s): DEMR 1316
- DEMR 2334 Prerequisite(s): DEMR 1410
- DEMR 2344 Prerequisite(s): DEMR 1316, (DEMR 1321 or HEMR 1304)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete 1 General Education Elective as recommended by program

Diesel Equipment Technology - Diesel Equipment Technology - John Deere CER2

Locations

Waco

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1375 - Introduction to Medium Heavy-Duty Truck and Equipment (3)
    - DEMR1305 - Basic Electrical Systems (3)
    - DEMR1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair (3)
    - DEMR1410 - Diesel Engine Testing and Repair I (4)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1406 - Diesel Engine I (4)
    - DEMR2332 - Electronic Controls (3)
    - DEMR1321 - Power Train I (3)
    - DEMR1316 - Basic Hydraulics (3)

Semester 3
16 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR2335 - Advanced Hydraulics (3)
    - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)
    - DEMR2344 - Automatic Power Shift and Hydrostatic Transmissions II (3)
    - AGME1353 - Harvesting Equipment (3)
    - HEMR1401 - Tracks and Undercarriages (4)

Semester 4
3 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1380 - Cooperative Education - Diesel Mechanics Technology/Technician (3)

Degree Plan Credits **45**

Capstone

- Complete the following:
    - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)

Pre/Corequisites

- DEMR 1406 Prerequisite(s): DEMR 1410
- DEMR 2332 Prerequisite(s): DEMR 1305
- DEMR 2335 Prerequisite(s): DEMR 1316
- DEMR 2334 Prerequisite(s): DEMR 1410
- DEMR 2344 Prerequisite(s): DEMR 1316, (DEMR 1321 or HEMR 1304)

Diesel Equipment Technology - Diesel Equipment Technology - Off Highway AAS

Locations

Waco
Marshall
Fort Bend County

Program Requirements

Semester 1
16 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DEMR1305 - Basic Electrical Systems (3)
        - DEMR1371 - Chassis I (3)
        - DEMR1375 - Introduction to Medium Heavy-Duty Truck and Equipment (3)
        - DEMR1410 - Diesel Engine Testing and Repair I (4)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 2
16 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 3 credits from the following:
        - DEMR1321 - Power Train I (3)
        - HEMR1304 - Natural Gas Compression (3)
    - Complete the following:
        - DEMR1316 - Basic Hydraulics (3)
        - DEMR2332 - Electronic Controls (3)
        - DEMR1406 - Diesel Engine I (4)
        - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 3
16 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 3 credits from the following:
        - AGME1353 - Harvesting Equipment (3)
        - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)
    - Complete the following:
        - DEMR1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair (3)
        - DEMR2344 - Automatic Power Shift and Hydrostatic Transmissions II (3)
        - HEMR1401 - Tracks and Undercarriages (4)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR2335 - Advanced Hydraulics (3)
    - DEMR2339 - Advanced Electrical Systems (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - DEMR2339 - Advanced Electrical Systems (3)

Pre/Corequisites

- DEMR 2332 Prerequisite(s): DEMR 1305
- DEMR 1406, DEMR 2334 Prerequisite(s): DEMR 1410
- DEMR 2344 Prerequisite(s): DEMR 1316, (DEMR 1321 or HEMR 1304)
- DEMR 2335 Prerequisite(s): DEMR 1316
- DEMR 2339 Prerequisite(s): DEMR 2332

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  General Education Electives
    - ENGL1301 - Composition I(3)
    - ENGL1302 - Composition II(3)

- ENGL2311 - Technical & Business Writing(3)
- HIST2321 - World Civilizations I(3)
- SPCH1315 - Public Speaking (3)
- SPCH1318 - Interpersonal Communication (3)
- SPCH1321 - Business & Professional Communication(3)
- ARTS1301 - Art Appreciation (3)
- ENGL2321 - British Literature(3)
- ENGL2326 - American Literature (single-Semester Course)(3)
- ENGL2341 - Forms of Literature(3)
- HUMA1301 - Introduction to Humanities I(3)
- HUMA2323 - World Cultures(3)
- MUSI1306 - Music Appreciation (3)
- PHIL1304 - Introduction to World Religions(3)
- PHIL2306 - Introduction to Ethics(3)
- ECON2301 - Principles of Macroeconomics(3)
- ECON2302 - Principles of Microeconomics(3)
- GOVT2305 - Federal Government (Federal constitution & topics)(3)
- GOVT2306 - Texas Government (Texas constitution & topics)(3)
- HIST1301 - United States History I(3)
- HIST1302 - United States History II(3)
- PSYC2301 - General Psychology(3)
- PSYC2314 - Lifespan Growth & Development(3)
- SOCI1301 - Introduction to Sociology(3)
- BIOL1306 - Biology for Science Majors I (lecture)(3)
- BIOL1307 - Biology for Science Majors II(3)
- BIOL1308 - Biology for Non-Science Majors I(3)
- BIOL1309 - Biology for Non-Science Majors II(3)
- BIOL2301 - Anatomy & Physiology I (lecture)(3)
- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1412 - General Chemistry II(4)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)

Diesel Equipment Technology - Diesel Equipment Technology - Off Highway CER1

Locations

Waco
Marshall
Fort Bend County

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1305 - Basic Electrical Systems (3)
    - DEMR1371 - Chassis I (3)
    - DEMR1375 - Introduction to Medium Heavy-Duty Truck and Equipment (3)
    - DEMR1410 - Diesel Engine Testing and Repair I (4)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DEMR1316 - Basic Hydraulics (3)
        - DEMR2332 - Electronic Controls (3)
        - DEMR1406 - Diesel Engine I (4)
    - Complete at least 3 credits from the following:
        - DEMR1321 - Power Train I (3)
        - HEMR1304 - Natural Gas Compression (3)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DEMR1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair (3)
        - DEMR2344 - Automatic Power Shift and Hydrostatic Transmissions II (3)
        - HEMR1401 - Tracks and Undercarriages (4)
    - Complete at least 3 credits from the following:
        - AGME1353 - Harvesting Equipment (3)
        - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)

Degree Plan Credits **39**

Capstone

- Complete the following:
    - HEMR1401 - Tracks and Undercarriages (4)

Pre/Corequisites

- DEMR 2332 Prerequisite(s): DEMR 1305
- DEMR 1406 Prerequisite(s): DEMR 1410
- DEMR 2334 Prerequisite(s): DEMR 1410
- DEMR 2344 Prerequisite(s): DEMR 1316, (DEMR 1321 or HEMR 1304)

Diesel Equipment Technology - Diesel Equipment Technology - Off Highway CER2

Locations

Waco
Marshall
Fort Bend County

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR1305 - Basic Electrical Systems (3)
    - DEMR1371 - Chassis I (3)
    - DEMR1375 - Introduction to Medium Heavy-Duty Truck and Equipment (3)
    - DEMR1410 - Diesel Engine Testing and Repair I (4)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DEMR1316 - Basic Hydraulics (3)
        - DEMR2332 - Electronic Controls (3)
        - DEMR1406 - Diesel Engine I (4)
    - Complete at least 3 credits from the following:
        - DEMR1321 - Power Train I (3)
        - HEMR1304 - Natural Gas Compression (3)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DEMR1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair (3)
        - DEMR2344 - Automatic Power Shift and Hydrostatic Transmissions II (3)
        - HEMR1401 - Tracks and Undercarriages (4)
    - Complete at least 3 credits from the following:
        - AGME1353 - Harvesting Equipment (3)
        - DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting (3)

Semester 4
6 Total Credits
keyboard_arrow_up

- Complete the following:
    - DEMR2335 - Advanced Hydraulics (3)
    - DEMR2339 - Advanced Electrical Systems (3)

Degree Plan Credits **45**

Capstone

- Complete the following:
    - DEMR2339 - Advanced Electrical Systems (3)

Pre/Corequisites

- DEMR 2332 Prerequisite(s): DEMR 1305
- DEMR 1406 Prerequisite(s): DEMR 1410
- DEMR 2334 Prerequisite(s): DEMR 1410
- DEMR 2344 Prerequisite(s): DEMR 1316, (DEMR 1321 or HEMR 1304)
- DEMR 2335 Prerequisite(s): DEMR 1316
- DEMR 2339 Prerequisite(s): DEMR 2332

Digital Media Design

Description

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, motion graphic animations, UXUI and digital video on computers. This program will provide training in graphic design fundamentals, desktop publishing, digital painting, sketching for ideation, color correction, motion graphics, sound editing, video capture, nonlinear video editing, user-interface design, photography, marketing and design.

Digital Media Design - Digital Media & Design Technology - Desktop Publisher ATC

Locations

Online - TSTC Connect

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - GRPH2309 - Digital Pre-Press (3)
    - ARTC2313 - Digital Publishing II (3)
    - ARTC2333 - Publication Design (3)

Semester 2
7 Total Credits
keyboard_arrow_up

- Complete the following:
    - ARTC2449 - Art Direction II (4)
    - ARTC2348 - Digital Publishing III (3)

Degree Plan Credits **16**

Pre/Corequisites

- ARTC 2348 Prerequisite(s): ARTC 2313

Digital Media Design - Digital Media & Design Technology AAS

Locations

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - ARTC1302 - Digital Imaging I (3)
    - ARTC1353 - Computer Illustration (3)
    - ARTC1313 - Digital Publishing I (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARTC1317 - Design Communication I (3)
  - ARTC1327 - Typography (3)
  - ARTC2305 - Digital Imaging II (3)
  - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARTC2340 - Computer Illustration II (3)
  - ARTV1351 - Digital Video (3)
  - IMED1341 - Interface Design (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARTV2341 - Advanced Digital Video (3)
  - IMED2359 - Interactive Web Elements (3)
  - ARTC2347 - Design Communication II (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARTC1349 - Art Direction I (3)
  - ARTC1359 - Visual Design for New Media (3)
  - ARTC2335 - Portfolio Development for Graphic Design (3)
  - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - ARTC2335 - Portfolio Development for Graphic Design (3)

Pre/Corequisites

- ARTC 1313, ARTC 1317 Prerequisite(s): ARTC 1302 (Prerequisite or Corequisite) ARTC 1353 (Prerequisite or Corequisite)
- ARTC 1327 Prerequisite(s): ARTC 1353 (Prerequisite or Corequisite)
- ARTC 2305 Prerequisite(s): ARTC 1302
- ARTC 2340 Prerequisite(s): ARTC 1353, ARTC 1317
- IMED 1341 Prerequisite(s): ARTC 1327, ARTC 1317
- ARTV 2341 Prerequisite(s): ARTV 1351
- IMED 2359 Prerequisite(s): IMED 1341
- ARTC 2347 Prerequisite(s): ARTC 1317, ARTC 2340 (Prerequisite or Corequisite), ARTC 2305 (Prerequisite or Corequisite)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)

- Complete at least 1 courses from the following:

keyboard_arrow_up
General Education Electives
  - ENGL1301 - Composition I (3)
  - ENGL1302 - Composition II (3)
  - ENGL2311 - Technical & Business Writing (3)
  - HIST2321 - World Civilizations I (3)
  - SPCH1315 - Public Speaking (3)
  - SPCH1318 - Interpersonal Communication (3)
  - SPCH1321 - Business & Professional Communication (3)
  - ARTS1301 - Art Appreciation (3)
  - ENGL2321 - British Literature (3)
  - ENGL2326 - American Literature (single-Semester Course) (3)
  - ENGL2341 - Forms of Literature (3)
  - HUMA1301 - Introduction to Humanities I (3)
  - HUMA2323 - World Cultures (3)
  - MUSI1306 - Music Appreciation (3)
  - PHIL1304 - Introduction to World Religions (3)
  - PHIL2306 - Introduction to Ethics (3)
  - ECON2301 - Principles of Macroeconomics (3)
  - ECON2302 - Principles of Microeconomics (3)
  - GOVT2305 - Federal Government (Federal constitution & topics) (3)
  - GOVT2306 - Texas Government (Texas constitution & topics) (3)
  - HIST1301 - United States History I (3)
  - HIST1302 - United States History II (3)
  - PSYC2301 - General Psychology (3)
  - PSYC2314 - Lifespan Growth & Development (3)
  - SOCI1301 - Introduction to Sociology (3)
  - BIOL1306 - Biology for Science Majors I (lecture) (3)
  - BIOL1307 - Biology for Science Majors II (3)
  - BIOL1308 - Biology for Non-Science Majors I (3)
  - BIOL1309 - Biology for Non-Science Majors II (3)
  - BIOL2301 - Anatomy & Physiology I (lecture) (3)
  - BIOL2302 - Anatomy & Physiology II (lecture) (3)
  - CHEM1305 - Introductory Chemistry I (lecture) (3)
  - CHEM1311 - General Chemistry I (lecture) (3)
  - CHEM1412 - General Chemistry II (4)
  - MATH1314 - College Algebra (3 SCH version) (3)
  - MATH1316 - Plane Trigonometry (3)
  - MATH1332 - Contemporary Mathematics (Quantitative Reasoning) (3)
  - MATH1342 - Elementary Statistical Methods (3)
  - PHYS1315 - Physical Science I (lecture) (3)
  - PHYS1315 - Physical Science I (lecture) (3)

Digital Media Design - Digital Media & Design Technology CER1

Locations

Online - TSTC Connect

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ARTC1302 - Digital Imaging I (3)
    - ARTC1353 - Computer Illustration (3)
    - ARTC1313 - Digital Publishing I (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ARTC1317 - Design Communication I (3)
    - ARTC1327 - Typography (3)
    - ARTC2305 - Digital Imaging II (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ARTC2347 - Design Communication II (3)
    - ARTC2340 - Computer Illustration II (3)
    - ARTV1351 - Digital Video (3)

Degree Plan Credits **27**

Capstone

- Complete the following:
    - ARTC2347 - Design Communication II (3)

Pre/Corequisites

- ARTC 1313, ARTC 1317 Prerequisite(s): ARTC 1302 (Prerequisite or Corequisite), ARTC 1353 (Prerequisite or Corequisite)
- ARTC 1327 Prerequisite(s): ARTC 1353 (Prerequisite or Corequisite)
- ARTC 2305 Prerequisite(s): ARTC 1302
- ARTC 2347 Prerequisite(s): ARTC 1317, ARTC 2340 (Prerequisite or Corequisite), ARTC 2305 (Prerequisite or Corequisite)
- ARTC 2340 Prerequisite(s): ARTC 1353, ARTC 1317

Digital Media Design - Digital Media & Design Technology CER2

Locations

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARTC1302 - Digital Imaging I (3)
  - ARTC1353 - Computer Illustration (3)
  - ARTC1313 - Digital Publishing I (3)
  - ARTC1317 - Design Communication I (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARTC1327 - Typography (3)
  - ARTC2305 - Digital Imaging II (3)
  - IMED1341 - Interface Design (3)
  - ARTC2340 - Computer Illustration II (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARTV1351 - Digital Video (3)
  - IMED2359 - Interactive Web Elements (3)
  - ARTC1359 - Visual Design for New Media (3)
  - ARTC2347 - Design Communication II (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ARTV2341 - Advanced Digital Video (3)
  - ARTC1349 - Art Direction I (3)
  - ARTC2335 - Portfolio Development for Graphic Design (3)

Degree Plan Credits **45**

Capstone

- Complete the following:
  - ARTC2335 - Portfolio Development for Graphic Design (3)

Pre/Corequisites

- ARTC 1313, ARTC 1317 Prerequisite(s): ARTC 1302 (Prerequisite or Corequisite), ARTC 1353 (Prerequisite or Corequisite)
- ARTC 1327 Prerequisite(s): ARTC 1353 (Prerequisite or Corequisite)
- ARTC 2305 Prerequisite(s): ARTC 1302
- IMED 1341, ARTC 2340 Prerequisite(s): ARTC 1327, ARTC 1317
- IMED 2359 Prerequisite(s): IMED 1341
- ARTC 1359 Prerequisite(s): ARTV 1351 (Prerequisite or Corequisite), ARTC 2340
- ARTC 2347 Prerequisite(s): ARTC 1317, ARTC 2340 (Prerequisite or Corequisite), ARTC 2305 (Prerequisite or Corequisite)
- ARTV 2341 Prerequisite(s): ARTV 1351
- ARTC 1349 Prerequisite(s): ARTC 2305, ARTC 2340
- ARTC 2335 Prerequisite(s): ARTC 2347, IMED 1341, ARTV 2341 (Prerequisite or Corequisite)

Education & Training

<u>Description</u>

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 & Training - Education & Training AAS

<u>Locations</u>

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - EDTC1301 - Educational Systems (3)
  - EDTC1341 - Instructional Technology and Computer Applications (3)
  - ENGL1301 - Composition I (3)
  - HIST1301 - United States History I (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - CDEC1359 - Children with Special Needs (3)
  - EDTC2311 - Instructional Practices and Effective Learning Environments (3)
  - HIST1302 - United States History II (3)
  - SPCH1315 - Public Speaking (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - EDTC1307 - Introduction to Teaching Reading (3)
  - TECA1354 - Child Growth & Development (3)
  - GOVT2305 - Federal Government (Federal constitution & topics) (3)
  - MATH1314 - College Algebra (3 SCH version) (3)
  - WECM3AEC - Area of Emphasis Course (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - EDTC1374 - Teaching Math & Science in the Elementary School (3)
  - EDTC2317 - Guiding Student Behavior (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
  - WECM3AEC - Area of Emphasis Course (3)

Semester 5
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - EDTC1364 - Practicum (or Field Experience) - Teacher Assistant/Aide (3)
  - CDEC1318 - Wellness of the Young Child (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - EDTC1364 - Practicum (or Field Experience) - Teacher Assistant/Aide (3)

Elective Options

- Select 1 Area of Emphasis group. Complete 6 credits for that group.
- Area of Emphasis in Bilingual Education (2 courses required)
- Complete the following:
    - EDTC1321 - Bilingual Education (3)
    - EDTC1325 - Multicultural Education   (3)

- Area of Emphasis in Early Childhood Education (2 courses required)
- Complete the following:
    - CDEC1321 - The Infant and Toddler (3)
    - CDEC1356 - Emergent Literacy for Early Childhood (3)

- Area of Emphasis in General Education (2 courses required)
- Complete the following:
    - EDTC1373 - Writing Problems (3)
    - EDTC2305 - Reading Problems (3)

- Area of Emphasis in Special Needs Education (2 courses required)
- Complete the following:
    - CDEC2340 - Instructional Techniques for Children with Special Needs (3)
    - EDTC1375 - Issues in Special Needs Education (3)

-
- ---
- Complete a course from each of the following elective groups
- Complete at least 1 courses from the following:

    keyboard_arrow_up

    Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - HIST1301 - United States History I (3)
    - HIST1302 - United States History II (3)
    - HIST2312 - Western Civilization II (3)
    - HIST2321 - World Civilizations I (3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I (3)
- Complete at least 1 courses from the following:

    keyboard_arrow_up

    Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)

Education & Training - Education & Training CER2

Locations

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - EDTC1301 - Educational Systems (3)
  - EDTC1341 - Instructional Technology and Computer Applications (3)
  - HIST1301 - United States History I (3)
  - SPCH1315 - Public Speaking (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - CDEC1318 - Wellness of the Young Child (3)
  - CDEC1359 - Children with Special Needs (3)
  - EDTC2311 - Instructional Practices and Effective Learning Environments (3)
  - ENGL1301 - Composition I (3)
  - HIST1302 - United States History II (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - EDTC2317 - Guiding Student Behavior (3)
  - TECA1354 - Child Growth & Development (3)
  - GOVT2305 - Federal Government (Federal constitution & topics) (3)
  - MATH1314 - College Algebra (3 SCH version) (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
7 Total Credits
keyboard_arrow_up

- Complete the following:
  - EDTC1164 - Practicum (or Field Experience) - Teacher Assistant/Aide (1)
  - WECM3AEC - Area of Emphasis Course (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **49**

Capstone

- Complete the following:
  - EDTC1164 - Practicum (or Field Experience) - Teacher Assistant/Aide (1)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Area of Emphasis
    - EDTC1321 - Bilingual Education(3)
    - EDTC1325 - Multicultural Education(3)
    - CDEC1321 - The Infant and Toddler(3)
    - CDEC1356 - Emergent Literacy for Early Childhood(3)
    - EDTC1373 - Writing Problems(3)
    - EDTC2305 - Reading Problems(3)
    - CDEC2340 - Instructional Techniques for Children with Special Needs(3)
    - EDTC1375 - Issues in Special Needs Education(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)

Electrical Construction

Description

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 - Electrical Construction

Locations

Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT2337 - Electrical Planning and Estimating (3)
    - ELPT1329 - Residential Wiring (3)
    - ITSC1309 - Integrated Software Applications I (3)
    - TECM1303 - Technical Calculations (3)

Degree Plan Credits **12**

Electrical Construction - Electrical Construction CER1

<u>Locations</u>

Waco

<u>Program Requirements</u>

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1311 - Basic Electrical Theory (3)
    - ELPT1325 - National Electrical Code I (3)
    - ELPT1329 - Residential Wiring (3)
    - OSHT1305 - OSHA Regulations - Construction Industry (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1315 - Electrical Calculations I (3)
    - ELPT1345 - Commercial Wiring (3)
    - ELPT1357 - Industrial Wiring (3)
    - ELPT2337 - Electrical Planning and Estimating (3)

Semester 3
6 Total Credits
keyboard_arrow_up

- Complete at least 6 credits from the following:
    - ELPT1681 - Cooperative Education - Electrical and Power Transmission Installation/ Installer, General (6)
    - SOLR1371 - Introduction to Solar and Alternative Energy Technologies (3)
    - SOLR1372 - Foundations of Solar Photovoltaic Power Generation (3)

Degree Plan Credits **30**

<u>Capstone</u>

- Complete the following:
    - ELPT1357 - Industrial Wiring (3)

<u>Pre/Corequisites</u>

- ELPT 1345, ELPT 1357 Prerequisite(s) or Corequisite(s): ELPT 1311, Prerequisite(s): ELPT 1329
- ELPT 2337 Prerequisite(s) or Corequisite(s): ELPT 1311
- ELPT 1681 Prerequisite(s): ELPT 1329, ELPT 1345, ELPT 1357, ELPT 2337

Electrical Lineworker & Management Technology

<u>Description</u>

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 will 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.

Electrical Lineworker & Management Technology - Electrical Lineworker Technology - Management AAS

Locations

Waco
Harlingen
Fort Bend County
Marshall
Abilene

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - CVOP1305 - Commercial Drivers License Written Skills (3)
  - LNWK1301 - Orientation and Line Skill Fundamentals (3)
  - LNWK1311 - Climbing Skills (3)
  - LNWK1370 - Rigging for Electrical Lineworker (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - LNWK2372 - Work Procedures and Safety in Electrical Lineworker (3)
  - LNWK1241 - Distribution Operations (2)
  - LNWK1470 - Electrical Safety, Tools and Calculations (4)
  - LNWK2321 - Live Line Safety (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - LNWK1331 - Transformer Connections (3)
  - LNWK1391 - Special Topics in Lineworker (3)
  - LNWK2322 - Distribution Line Construction (3)
  - LNWK2370 - Transmission and Underground Utilities (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - BMGT1309 - Information and Project Management (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
  - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - BMGT1327 - Principles of Management (3)
    - MRKG1301 - Customer Relationship Management (3)
    - ACGM3GED - Gen Ed Elective (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - LNWK2322 - Distribution Line Construction (3)
  - BMGT1309 - Information and Project Management (3)

Pre/Corequisites

- LNWK 2372, LNWK 1241, LNWK 1470, LNWK 2321, LNWK 1331, LNWK 1391, LNWK 2322, LNWK 2370
  Prerequisite(s): LNWK 1311

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry (3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete 1 General Education Elective as recommended by program

Electrical Lineworker & Management Technology - Electrical Lineworker Technology CER1

Locations

Waco
Harlingen
Fort Bend County
Marshall
Abilene

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - CVOP1305 - Commercial Drivers License Written Skills (3)
  - LNWK1301 - Orientation and Line Skill Fundamentals (3)
  - LNWK1311 - Climbing Skills (3)
  - LNWK1370 - Rigging for Electrical Lineworker (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - LNWK2372 - Work Procedures and Safety in Electrical Lineworker (3)
  - LNWK1241 - Distribution Operations (2)
  - LNWK1470 - Electrical Safety, Tools and Calculations (4)
  - LNWK2321 - Live Line Safety (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - LNWK1331 - Transformer Connections (3)
  - LNWK1391 - Special Topics in Lineworker (3)
  - LNWK2322 - Distribution Line Construction (3)
  - LNWK2370 - Transmission and Underground Utilities (3)

Degree Plan Credits **36**

Capstone

- Complete the following:
  - LNWK2322 - Distribution Line Construction (3)

Pre/Corequisites

- LNWK 2372, LNWK 1241, LNWK 1470, LNWK 2321, LNWK 1331, LNWK 1391, LNWK 2322, LNWK 2370
  Prerequisite(s): LNWK 1311

Electrical Power and Controls

Description

The Electrical Power & Controls program offers instruction in engineering and design, installation and calibration, maintenance, testing and troubleshooting, 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, and 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, programmable logic controllers (PLCs), speed-drive systems and computer software packages for engineering, designing and drafting.

Electrical Power and Controls - Electrical Power & Controls AAS

Locations

Waco
Fort Bend County
Abilene
North Texas

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1319 - Fundamentals of Electricity I (3)
    - ELPT1321 - Introduction to Electrical Safety and Tools (3)
    - MATH1316 - Plane Trigonometry (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ELPT1320 - Fundamentals of Electricity II (3)
        - ELPT1341 - Motor Control (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)
    - Complete the following:
        - ACGM3GED - Gen Ed Elective (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT2319 - Programmable Logic Controllers I (3)
    - ELPT2335 - Electrical Theory and Devices (3)
    - DFTG1313 - Drafting for Specific Occupations (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - EEIR1309 - National Electrical Code (3)
    - ELPT1351 - Electrical Machines (3)
    - ELPT2339 - Electrical Power Distribution (3)
    - ELPT2349 - Industrial Automation (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT2323 - Transformers (3)
    - ELPT2331 - AC/DC Drives (3)
    - ELPT2343 - Electrical Systems Design (3)
    - ELPT2347 - Electrical Testing and Maintenance (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - ELPT2343 - Electrical Systems Design (3)

Pre/Corequisites

- ELPT 1320 Prerequisite(s): CETT 1303 or ELPT 1319
- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or ELPT 1319 or CETT 1303 or INMT 1372
- ELPT 2319 Prerequisite(s): ELPT 1341 (Prerequisite or Corequisite)
- ELPT 2335 Prerequisite(s): CETT 1305 or ELPT 1320 or MATH 1316
- EEIR 1309 Prerequisite(s): (CETT 1305 or ELPT 1320), ELPT 1341
- ELPT 1351 Prerequisite(s): ELPT 1320 or ELPT 1341
- ELPT 2339 Prerequisite(s): (CETT 1305 or ELPT 1320), DFTG 1313
- ELPT 2349 Prerequisites(s): ELPT 2319
- ELPT 2323 Prerequisite(s): ELPT 2335
- ELPT 2331 Prerequisite(s): (ELPT 1351 or ELPT 2305), ELPT 1341
- ELPT 2343 Prerequisite(s): DFTG 1313, (EEIR 1309 or ELPT 2339)
- ELPT 2347 Prerequisite(s): (CETT 1305 or ELPT 1320), ELPT 1351, ELPT 2339 (Prerequisite or Corequisite)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - HIST1301 - United States History I (3)
    - HIST1302 - United States History II (3)
    - HIST2312 - Western Civilization II (3)
    - HIST2321 - World Civilizations I (3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  General Education Electives
    - ENGL1301 - Composition I (3)
    - ENGL1302 - Composition II (3)
    - ENGL2311 - Technical & Business Writing (3)
    - HIST2321 - World Civilizations I (3)
    - SPCH1315 - Public Speaking (3)
    - SPCH1318 - Interpersonal Communication (3)
    - SPCH1321 - Business & Professional Communication (3)
    - ARTS1301 - Art Appreciation (3)
    - ENGL2321 - British Literature (3)
    - ENGL2326 - American Literature (single-Semester Course) (3)
    - ENGL2341 - Forms of Literature (3)
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2323 - World Cultures (3)
    - MUSI1306 - Music Appreciation (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - HIST1301 - United States History I (3)
    - HIST1302 - United States History II (3)
    - PSYC2301 - General Psychology (3)

- PSYC2314 - Lifespan Growth & Development (3)
- SOCI1301 - Introduction to Sociology (3)
- BIOL1306 - Biology for Science Majors I (lecture)(3)
- BIOL1307 - Biology for Science Majors II(3)
- BIOL1308 - Biology for Non-Science Majors I(3)
- BIOL1309 - Biology for Non-Science Majors II(3)
- BIOL2301 - Anatomy & Physiology I (lecture)(3)
- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1412 - General Chemistry II(4)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry (3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods (3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I (3)
  - HUMA2319 - American Minority Studies (3)
  - HUMA2323 - World Cultures (3)
  - PHIL1301 - Introduction to Philosophy (3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2303 - Introduction to Formal Logic (3)
  - PHIL2306 - Introduction to Ethics (3)
  - ARTS1301 - Art Appreciation (3)
  - ARTS2326 - Sculpture I (3)
  - ARTS2326 - Sculpture I (3)
  - MUSI1306 - Music Appreciation (3)

Electromechanical Technology

Description

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 - Electromechanical Technology AAS

Locations

Sweetwater

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - ELMT1374 - Introduction to Electromechanical System (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1305 - AC Circuits (3)
    - CETT1325 - Digital Fundamentals (3)
    - ELMT1305 - Basic Fluid Power (3)
    - ELMT1373 - Pumps and Compressors Control (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - CETT1329 - Solid State Devices (3)
        - ELMT1301 - Programmable Logic Controllers (3)
        - ELMT2373 - Communication Protocols (3)
        - INMT1317 - Industrial Automation (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 4
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELMT2239 - Advanced Programmable Logic Controllers (2)
    - ELMT2372 - Process Control Systems (3)
    - ELMT2341 - Electromechanical Systems (3)
    - ELMT2371 - Industrial Control Power Devices (3)
    - ACGM3GED - Gen Ed Elective (3)

Semester 5
4 Total Credits
keyboard_arrow_up

- Complete at least 4 credits from the following:
    - ELMT2480 - Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology (4)
    - ELMT1491 - Special Topics in Electromechanical Technology/Technician (4)

Degree Plan Credits **60**

Capstone

- Complete at least 4 credits from the following:
    - ELMT2480 - Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology (4)
    - ELMT1491 - Special Topics in Electromechanical Technology/Technician (4)

Pre/Corequisites

- CETT 1305 Prerequisite(s): CETT 1303, IEIR 1302 (Prerequisite or Corequisite)
- CETT 1325 Prerequisite(s): CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
- ELMT 1373 Prerequisite(s): CETT 1303
- CETT 1329 Prerequisite(s): CETT 1305, IEIR 1371 or IEIR 1304
- ELMT 1301, ELMT 2372 Prerequisite(s): CETT 1325
- INMT 1317 Prerequisite(s): CETT 1303, CETT 1305
- ELMT 2239 Prerequisite(s): ELMT 1301
- ELMT 2372 Prerequisite(s): ELMT 1373
- ELMT 2341 Prerequisite(s): ELMT 1374
- ELMT 2371 Prerequisite(s): CETT 1305

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)

- SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:

keyboard_arrow_up

General Education Electives

  - ENGL1301 - Composition I(3)
  - ENGL1302 - Composition II(3)
  - ENGL2311 - Technical & Business Writing(3)
  - HIST2321 - World Civilizations I(3)
  - SPCH1315 - Public Speaking(3)
  - SPCH1318 - Interpersonal Communication(3)
  - SPCH1321 - Business & Professional Communication(3)
  - ARTS1301 - Art Appreciation(3)
  - ENGL2321 - British Literature(3)
  - ENGL2326 - American Literature (single-Semester Course)(3)
  - ENGL2341 - Forms of Literature(3)
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2323 - World Cultures(3)
  - MUSI1306 - Music Appreciation(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - PSYC2301 - General Psychology(3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - SOCI1301 - Introduction to Sociology(3)
  - BIOL1306 - Biology for Science Majors I (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL1308 - Biology for Non-Science Majors I(3)
  - BIOL1309 - Biology for Non-Science Majors II(3)
  - BIOL2301 - Anatomy & Physiology I (lecture)(3)
  - BIOL2302 - Anatomy & Physiology II (lecture)(3)
  - CHEM1305 - Introductory Chemistry I (lecture)(3)
  - CHEM1311 - General Chemistry I (lecture)(3)
  - CHEM1412 - General Chemistry II(4)
  - MATH1314 - College Algebra (3 SCH version)(3)
  - MATH1316 - Plane Trigonometry(3)
  - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
  - MATH1342 - Elementary Statistical Methods(3)
  - PHYS1315 - Physical Science I (lecture)(3)
  - PHYS1315 - Physical Science I (lecture)(3)

Electromechanical Technology - Electromechanical Technology CER1

Locations

Sweetwater

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - CETT1303 - DC Circuits (3)
  - ELMT1374 - Introduction to Electromechanical System (3)
  - CETT1305 - AC Circuits (3)
  - CETT1325 - Digital Fundamentals (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ELMT1301 - Programmable Logic Controllers (3)
  - INMT1317 - Industrial Automation (3)
  - ELMT1305 - Basic Fluid Power (3)
  - ELMT1373 - Pumps and Compressors Control (3)

Degree Plan Credits **24**

Capstone

- Complete the following:
  - ELMT1301 - Programmable Logic Controllers (3)

Pre/Corequisites

- CETT 1305 Prerequisite(s): CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
- CETT 1325 Prerequisite(s): CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
- ELMT 1301 Prerequisite(s): CETT 1325
- INMT 1317 Prerequisite(s): CETT 1303, CETT 1305

Electromechanical Technology - Electromechanical Technology CER2

Locations

Sweetwater

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - CETT1303 - DC Circuits (3)
        - ELMT1374 - Introduction to Electromechanical System (3)
    - Complete at least 3 credits from the following:
        - TECM1303 - Technical Calculations (3)
        - MATH1314 - College Algebra (3 SCH version) (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1305 - AC Circuits (3)
    - CETT1325 - Digital Fundamentals (3)
    - ELMT1305 - Basic Fluid Power (3)
    - ELMT1373 - Pumps and Compressors Control (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELMT1301 - Programmable Logic Controllers (3)
    - CETT1329 - Solid State Devices (3)
    - ELMT2373 - Communication Protocols (3)
    - INMT1317 - Industrial Automation (3)

Semester 4
11 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELMT2372 - Process Control Systems (3)
    - ELMT2239 - Advanced Programmable Logic Controllers (2)
    - ELMT2341 - Electromechanical Systems (3)
    - ELMT2371 - Industrial Control Power Devices (3)

Degree Plan Credits **44**

Capstone

- Complete the following:
    - ELMT2341 - Electromechanical Systems (3)

Pre/Corequisites

- CETT 1305 Prerequisite(s): CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
- CETT 1325 Prerequisite(s): CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
- ELMT 1301, ELMT 2373 Prerequisite(s): CETT 1325
- CETT 1329 Prerequisite(s): CETT 1305, IEIR 1371 or IEIR 1304
- INM 1317 Prerequisite(s): CETT 1303, CETT 1305
- ELMT 2372 Prerequisite(s): ELMT 1373
- ELMT 2239 Prerequisite(s): ELMT 1301
- ELMT 2371 Prerequisite(s): CETT 1305

Emergency Medical Services

Description

In TSTC's Emergency Medical Services program, you will learn from experienced, certified instructors in an environment that combines hands-on labs with online lectures. You will gain skills in medical procedures required to assess and treat victims at the scene and en route to the hospital, and you will 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 EMTs and paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains, with exit points at the Advanced Emergency Medical Technician or Emergency Medical Technician (Basic).

Grading Scale

A = 100-90

B = 89-80

C = 79-70

D = 69-60

F = 59-0

NOTE: Students scoring less than 70% 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 or apply for advanced placement if applicable. Should a student fail an advanced level High Stakes Exam or Final Summative Exam after the second attempt, the student will be dismissed and may be given the opportunity to reapply and repeat the program in FULL or apply for advanced placement if applicable. The 70% 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, AEMT or Paramedic.

Transfer credit shall be processed by the Office of the Registrar 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. In the case of a transfer credit dispute or appeal, the Associate Vice Chancellor for Instructional Alignment & Innovation or a 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. **Note: Programs in Health Sciences may have particular acceptance of academic course policies as outlined in their program application documentation or program handbook references.

Emergency Medical Services - Emergency Medical Services - Advanced EMT CER2

Locations

Abilene
Brownwood
Harlingen

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (2)
    - EMSP1501 - Emergency Medical Technician (5)
    - EMSP2237 - Emergency Procedures (2)

Semester 2
17 Total Credits
keyboard_arrow_up

- Complete the following:
    - EMSP1355 - Trauma Management (3)
    - EMSP1356 - Patient Assessment and Airway Management (3)
    - EMSP1438 - Introduction to Advanced Practice (4)
    - HPRS2302 - Medical Terminology for Allied Health (3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab) (4)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - EMSP2161 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2444 - Cardiology (4)
    - EMSP2330 - Special Populations (3)
    - EMSP2434 - Medical Emergencies (4)

Degree Plan Credits **39**

Capstone

- Complete the following:
    - EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)

Pre/Corequisites

- EMSP 1261 Corequisite(s): EMSP 1501, EMSP 2237
- EMSP 1501 Corequisite(s): EMSP 1261, EMSP 2237
- EMSP 2237 Corequisite(s): EMSP 1501, EMSP 1261
- EMSP 1355 Prerequisite(s): EMSP 1261, EMSP 1501, EMSP 2237 Corequisite(s): EMSP 1356, EMSP 1438
- EMSP 1356 Prerequisite(s): EMSP 1261, EMSP 1501, EMSP 2237 Corequisite(s): EMSP 1355, EMSP 1438
- EMSP 1438 Prerequisite(s): EMSP 1261, EMSP 1501, EMSP 2237 Corequisite(s): EMSP 1355, EMSP 1356
- EMSP 2161 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2434, EMSP 2444, EMSP 2330, EMSP 2167
- EMSP 2167 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2434, EMSP 2444, EMSP 2330, EMSP 2161
- EMSP 2434 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2330, EMSP 2444, EMSP 2161, EMSP 2167
- EMSP 2330 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2434, EMSP 2161, EMSP 2167, EMSP 2444
- EMSP 2444 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2161, EMSP 2167, EMSP 2434, EMSP 2330

Emergency Medical Services - Emergency Medical Services - EMT CER1

Locations

Abilene
Brownwood
Harlingen

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (2)
    - EMSP1501 - Emergency Medical Technician (5)
    - EMSP2237 - Emergency Procedures (2)

Semester 2
7 Total Credits
keyboard_arrow_up

- Complete the following:
    - HPRS2302 - Medical Terminology for Allied Health (3)
    - SCIT1407 - Applied Human Anatomy and Physiology I (4)

Degree Plan Credits **16**

Capstone

- Complete the following:
    - EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (2)

Pre/Corequisites

- EMSP 1261 Corequisite(s): EMSP 1501, EMSP 2237
- EMSP 1501 Corequisite(s): EMSP 1261, EMSP 2237
- EMSP 2237 Corequisite(s): EMSP 1501, EMSP 1261

Emergency Medical Services - Emergency Medical Services - Paramedic AAS

Locations

Harlingen
Abilene
Brownwood

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (2)
    - EMSP1501 - Emergency Medical Technician (5)
    - EMSP2237 - Emergency Procedures (2)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Semester 2
17 Total Credits
keyboard_arrow_up

- Complete the following:
  - EMSP1355 - Trauma Management (3)
  - EMSP1356 - Patient Assessment and Airway Management (3)
  - EMSP1438 - Introduction to Advanced Practice (4)
  - HPRS2302 - Medical Terminology for Allied Health (3)
  - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab) (4)

Semester 3
16 Total Credits
keyboard_arrow_up

- Complete the following:
  - EMSP2161 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (1)
  - EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
  - EMSP2434 - Medical Emergencies (4)
  - EMSP2330 - Special Populations (3)
  - EMSP2444 - Cardiology (4)
  - ACGM3GED - Gen Ed Elective (3)

Semester 4
11 Total Credits
keyboard_arrow_up

- Complete the following:
  - EMSP2143 - Assessment Based Management (1)
  - EMSP2168 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
  - EMSP2205 - EMS Operations (2)
  - EMSP2262 - Clinical - Emergency Medical Technology/Technician (emt Paramedic) (2)
  - EMSP2206 - Emergency Pharmacology (2)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 5
4 Total Credits
keyboard_arrow_up

- Complete the following:
  - EMSP2169 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - EMSP2143 - Assessment Based Management (1)
  - EMSP2169 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)

Pre/Corequisites

- EMSP 1261 Corequisite(s): EMSP 1501, EMSP 2237
- EMSP 1501 Corequisite(s): EMSP 1261, EMSP 2237
- EMSP 2237 Corequisite(s): EMSP 1501, EMSP 1261
- EMSP 1355 Prerequisite(s): EMSP 1261, EMSP 1501, EMSP 2237 Corequisite(s): EMSP 1356, EMSP 1438
- EMSP 1356 Prerequisite(s): EMSP 1261, EMSP 1501, EMSP 2237 Corequisite(s): EMSP 1355, EMSP 1438
- EMSP 1438 Prerequisite(s): EMSP 1261, EMSP 1501, EMSP 2237 Corequisite(s): EMSP 1355, EMSP 1356
- EMSP 2161 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2434, EMSP 2444, EMSP 2330, EMSP 2167
- EMSP 2167 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2434, EMSP 2444, EMSP 2330, EMSP 2161
- EMSP 2434 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2330, EMSP 2444, EMSP 2161, EMSP 2167
- EMSP 2330 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2434, EMSP 2161, EMSP 2167, EMSP 2444
- EMSP 2444 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s):EMSP 2161, EMSP 2167, EMSP 2434, EMSP 2330
- EMSP 2143 Prerequisite(s): EMSP 2330, EMSP 2434, EMSP 2444 Corequisite(s): EMSP 2168, EMSP 2205, EMSP 2262, EMSP 2206
- EMSP 2168 Prerequisite(s): EMSP 2161, EMSP 2167 Corequisite(s): EMSP 2143, EMSP 2205, EMSP 2262, EMSP 2206
- EMSP 2205 Prerequisite(s): EMSP 2330, EMSP 2434, EMSP 2444 Corequisite(s): EMSP 2143, EMSP 2206, EMSP 2262, EMSP 2168
- EMSP 2262 Prerequisite(s): EMSP 2161, EMSP 2167 Corequisite(s): EMSP 2143, EMSP 2205, EMSP 2206, EMSP 2168
- EMSP 2206 Prerequisite(s): EMSP 2330, EMSP 2434, EMSP 2444 Corequisite(s): EMSP 2143, EMSP 2205, EMSP 2262, EMSP 2168
- EMSP 2169 Prerequisite(s): EMSP 2168, EMSP 2262

Elective Options

- Complete 1 General Education Elective as recommended by program
- Complete at least 1 courses from the following:

  keyboard_arrow_up

  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2319 - American Minority Studies(3)
  - HUMA2323 - World Cultures(3)
  - PHIL1301 - Introduction to Philosophy(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2303 - Introduction to Formal Logic(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ARTS1301 - Art Appreciation(3)
  - ARTS2326 - Sculpture I(3)
  - ARTS2326 - Sculpture I(3)
  - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:

  keyboard_arrow_up

  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - ANTH2346 - General Anthropology(3)
  - ECON1301 - Introduction to Economics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GEOG1302 - Human Geography(3)
  - GEOG1303 - World Regional Geography(3)
  - PSYC1100 - Learning Framework(1)
  - PSYC2301 - General Psychology(3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - HIST2312 - Western Civilization II(3)
  - HIST2321 - World Civilizations I(3)
  - SOCI1301 - Introduction to Sociology(3)
  - SOCI1306 - Social Problems(3)
  - SOCI2319 - Minority Studies I(3)

Emergency Medical Services - Emergency Medical Services - Paramedic CER2

<u>**Locations**</u>

Abilene
Brownwood
Harlingen

<u>**Program Requirements**</u>

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (2)
    - EMSP1501 - Emergency Medical Technician (5)
    - EMSP2237 - Emergency Procedures (2)

Semester 2
17 Total Credits
keyboard_arrow_up

- Complete the following:
    - EMSP1355 - Trauma Management (3)
    - EMSP1356 - Patient Assessment and Airway Management (3)
    - EMSP1438 - Introduction to Advanced Practice (4)
    - HPRS2302 - Medical Terminology for Allied Health (3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab) (4)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - EMSP2161 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2434 - Medical Emergencies (4)
    - EMSP2330 - Special Populations (3)
    - EMSP2444 - Cardiology (4)

Semester 4
8 Total Credits
keyboard_arrow_up

- Complete the following:
    - EMSP2143 - Assessment Based Management (1)
    - EMSP2168 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2205 - EMS Operations (2)
    - EMSP2262 - Clinical - Emergency Medical Technology/Technician (emt Paramedic) (2)
    - EMSP2206 - Emergency Pharmacology (2)

Semester 5
1 Total Credits
keyboard_arrow_up

- Complete the following:
    - EMSP2169 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)

Degree Plan Credits **48**

Capstone

- Complete the following:
    - EMSP2143 - Assessment Based Management (1)
    - EMSP2169 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)

Pre/Corequisites

- EMSP 1261 Corequisite(s): EMSP 1501, EMSP 2237
- EMSP 1501 Corequisite(s): EMSP 1261, EMSP 2237
- EMSP 2237 Corequisite(s): EMSP 1501, EMSP 1261
- EMSP 1355 Prerequisite(s): EMSP 1261, EMSP 1501, EMSP 2237 Corequisite(s): EMSP 1356, EMSP 1438
- EMSP 1356 Prerequisite(s): EMSP 1261, EMSP 1501, EMSP 2237 Corequisite(s): EMSP 1355, EMSP 1438
- EMSP 1438 Prerequisite(s): EMSP 1261, EMSP 1501, EMSP 2237 Corequisite(s): EMSP 1355, EMSP 1356
- EMSP 2161 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2434, EMSP 2444, EMSP 2330, EMSP 2167
- EMSP 2167 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2434, EMSP 2444, EMSP 2330, EMSP 2161
- EMSP 2434 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2330, EMSP 2444, EMSP 2161, EMSP 2167
- EMSP 2330 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s): EMSP 2434, EMSP 2161, EMSP 2167, EMSP 2444
- EMSP 2444 Prerequisite(s): EMSP 1355, EMSP 1356, EMSP 1438 Corequisite(s):EMSP 2161, EMSP 2167, EMSP 2434, EMSP 2330
- EMSP 2143 Prerequisite(s): EMSP 2330, EMSP 2434, EMSP 2444 Corequisite(s): EMSP 2168, EMSP 2205, EMSP 2262, EMSP 2206
- EMSP 2168 Prerequisite(s): EMSP 2161, EMSP 2167 Corequisite(s): EMSP 2143, EMSP 2205, EMSP 2262, EMSP 2206
- EMSP 2205 Prerequisite(s): EMSP 2330, EMSP 2434, EMSP 2444 Corequisite(s): EMSP 2143, EMSP 2206, EMSP 2262, EMSP 2168
- EMSP 2206 Prerequisite(s): EMSP 2330, EMSP 2434, EMSP 2444 Corequisite(s): EMSP 2143, EMSP 2205, EMSP 2262, EMSP 2168
- EMSP 2169 Prerequisite(s): EMSP 2168, EMSP 2262

Engineering

Description

The Engineering program supports and enhances the college's technical education mission by providing Texas industries 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 - Engineering AS

Locations

Harlingen

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGR1201 - Introduction to Engineering (2)
    - CHEM1111 - General Chemistry I (lab) (1)
    - CHEM1311 - General Chemistry I (lecture) (3)
    - ENGL1301 - Composition I (3)
    - MATH2312 - Pre-Calculus Math (3 SCH version) (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGR1304 - Engineering Graphics I (3 Sch version) (3)
    - ENGL1302 - Composition II (3)
    - GOVT2306 - Texas Government (Texas constitution & topics) (3)
    - MATH2413 - Calculus I (4 SCH version) (4)

Semester 3
11 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGR2304 - Programming for Engineers (3)
    - MATH2414 - Calculus II (4 SCH version) (4)
    - PHYS2325 - University Physics I (lecture) (3)
    - PHYS2125 - University Physics Laboratory I (lab) (1)

Semester 4
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGR2301 - Engineering Mechanics - Statics (3 SCH version) (3)
    - HIST1301 - United States History I (3)
    - MATH2415 - Calculus III (4 SCH version) (4)
    - PHYS2326 - University Physics II (lecture) (3)
    - PHYS2126 - University Physics Laboratory II (lab) (1)

Semester 5
10 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGR2105 - Electrical Circuits I Laboratory (1)
    - ENGR2302 - Engineering Mechanics - Dynamics (3 SCH version) (3)
    - ENGR2305 - Electrical Circuits I (3)
    - MATH2320 - Differential Equations (3 SCH version) (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - ENGR2305 - Electrical Circuits I (3)
    - ENGR2105 - Electrical Circuits I Laboratory (1)

Pre/Corequisites

- ENGR 1201 Prerequisite(s): MATH 1314
- CHEM 1311 Prerequisite(s): MATH 1314, CHEM 1111 (Corequisite)
- CHEM 1111 Prerequisite(s): CHEM 1311 (Corequisite)
- MATH 2312 Prerequisite(s): MATH 1314 or MATH 1316
- ENGR 1304 Prerequisite(s): MATH 1314
- ENGL 1302 Prerequisite(s): ENGL 1301
- MATH 2413 Prerequisite(s): (MATH 1314 and MATH 1316) or MATH 2312 or MATH 2412
- MATH 2414 Prerequisite(s): MATH 2413
- PHYS 2325 Prerequisite(s): MATH 2413, PHYS 2125 (Corequisite)
- PHYS 2125 Prerequisite(s): PHYS 2325 (Co)
- ENGR 2301 Prerequisite(s): PHYS 2325
- MATH 2415 Prerequisite(s): MATH 2414
- PHYS 2326 Prerequisite(s): PHYS 2325, MATH 2414, PHYS 2126 (Corequisite)
- PHYS 2126 Prerequisite(s): PHYS 2326 (Corequisite)
- ENGR 2302 Prerequisite(s): ENGR 2301
- ENGR 2305 Prerequisite(s): PHYS 2325, MATH 2414
- MATH 2320 Prerequisite(s): MATH 2414

Engineering Graphics & Design Technology

Description

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 newest drawing software on the market, including AutoCad, Solid Works and Inventor.

Engineering Graphics & Design Technology - Engineering Graphics & Design Technology AAS

Locations

Online - TSTC Connect
Harlingen
Marshall
Waco
North Texas

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DFTG1309 - Basic Computer-Aided Drafting (3)
        - DFTG1325 - Blueprint Reading and Sketching (3)
    - Complete at least 3 credits from the following:
        - DFTG1345 - Parametric Modeling and Design (3)
        - ENGR1304 - Engineering Graphics I (3 Sch version) (3)
    - Complete the following:
        - MATH1314 - College Algebra (3 SCH version) (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DFTG1329 - Electro-Mechanical Drafting (3)
        - DFTG1333 - Mechanical Drafting (3)
        - DFTG2323 - Pipe Drafting (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - DFTG1358 - Electrical/Electronics Drafting (3)
    - DFTG2302 - Machine Drafting (3)
    - DFTG2357 - Advanced Technologies in Pipe Design and Drafting (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - DFTG2335 - Advanced Technologies in Mechanical Design and Drafting (3)
    - DFTG2340 - Solid Modeling/Design (3)
    - DFTG2350 - Geometric Dimensioning and Tolerancing (3)
    - ACGM3SPH - Gen Ed Speech Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DFTG2306 - Machine Design (3)
    - Complete at least 3 credits from the following:
        - DFTG1395 - Special Topics in Mechanical Drafting and Mechanical Drafting CAD/CADD (3)
        - DFTG2386 - Internship - Drafting and Design Technology/Technician, General (3)
    - Complete the following:
        - DFTG2332 - Advanced Computer-Aided Drafting (3)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - DFTG2306 - Machine Design (3)

Pre/Corequisites

- ENGR 1304 Prerequisite(s): MATH 1314
- DFTG 1329, DFTG 1333, DFTG 2323, DFTG 2357, DFTG 2386 Prerequisite(s): DFTG 1309
- DFTG 1358 Prerequisite(s): DFTG 1329
- DFTG 2302 Prerequisite(s): DFTG 1333
- DFTG 2335, DFTG 2340, DFTG 2350 Prerequisite(s): DFTG 2302

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - HIST1301 - United States History I (3)
    - HIST1302 - United States History II (3)
    - HIST2312 - Western Civilization II (3)
    - HIST2321 - World Civilizations I (3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
    - SPCH1311 - Introduction to Speech Communication (3)
    - SPCH1315 - Public Speaking (3)
    - SPCH1318 - Interpersonal Communication (3)
    - SPCH1321 - Business & Professional Communication (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)

Engineering Graphics & Design Technology - Engineering Graphics & Design Technology CER1

Locations

Online - TSTC Connect
Harlingen
Marshall
Waco
North Texas

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - DFTG1309 - Basic Computer-Aided Drafting (3)
        - DFTG1325 - Blueprint Reading and Sketching (3)
    - Complete at least 3 credits from the following:
        - DFTG1345 - Parametric Modeling and Design (3)
        - ENGR1304 - Engineering Graphics I (3 Sch version) (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - DFTG1329 - Electro-Mechanical Drafting (3)
    - DFTG1333 - Mechanical Drafting (3)
    - DFTG2323 - Pipe Drafting (3)

Degree Plan Credits **18**

Capstone

- Complete the following:
    - DFTG1333 - Mechanical Drafting (3)

Pre/Corequisites

- ENGR 1304 Prerequisite(s): MATH 1314
- DFTG 1329, DFTG 1333, DFTG 2323 Prerequisite(s): DFTG 1309

Engineering Graphics & Design Technology - Engineering Graphics & Design Technology CER2

Locations

Online - TSTC Connect
Waco
Harlingen
Marshall
North Texas

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - DFTG1309 - Basic Computer-Aided Drafting (3)
    - DFTG1325 - Blueprint Reading and Sketching (3)
  - Complete at least 3 credits from the following:
    - DFTG1345 - Parametric Modeling and Design (3)
    - ENGR1304 - Engineering Graphics I (3 Sch version) (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - DFTG1329 - Electro-Mechanical Drafting (3)
  - DFTG1333 - Mechanical Drafting (3)
  - DFTG2323 - Pipe Drafting (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - DFTG1358 - Electrical/Electronics Drafting (3)
  - DFTG2302 - Machine Drafting (3)
  - DFTG2357 - Advanced Technologies in Pipe Design and Drafting (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - DFTG2335 - Advanced Technologies in Mechanical Design and Drafting (3)
  - DFTG2340 - Solid Modeling/Design (3)
  - DFTG2350 - Geometric Dimensioning and Tolerancing (3)

Degree Plan Credits **36**

Capstone

- Complete the following:
  - DFTG2335 - Advanced Technologies in Mechanical Design and Drafting (3)

Pre/Corequisites

- ENGR 1304 Prerequisite(s): MATH 1314
- DFTG 1329, DFTG 1333, DFTG 2323, DFTG 1358 Prerequisite(s): DFTG 1309
- DFTG 2302 Prerequisite(s): DFTG 1333
- DFTG 2357 Prerequisite(s): DFTG 1333
- DFTG 2335, DFTG 2340, DFTG 2350 Prerequisite(s): DFTG 2302

Health Information Technology

Description

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.

Students participating in practicum courses are required to purchase accident and malpractice insurance.

The Health Information Technology (HIT) program at TSTC offers flexible learning through Performance-Based Education (PBE), designed to fit your busy schedule. In PBE courses, you demonstrate mastery of course competencies through assessments. At TSTC, the mastery level for technical courses is set at 80% or higher.

To successfully complete a course, you must achieve the required mastery level on **all** Mastery Assessments. One key advantage of PBE is that if you do not complete a course within the semester, your Mastery Assessment scores will carry over, allowing you to pick up where you left off in the next term.

For the HIT program, you are allowed up to **three attempts** per Mastery Assessment.

PBE Grading Scale:

A = 90-100

B = 80-89

F = Below 80

Transfer credit shall be processed by the Office of the Registrar 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. In the case of a transfer credit dispute or appeal, the Associate Vice Chancellor for Instructional Alignment & Innovation or a 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. **Note: Programs in Health Sciences may have particular acceptance of academic course policies as outlined in their program application documentation or program handbook references.

Health Information Technology - Health Information Technology - Medical Coding & Billing Specialist CER2

Locations

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - HITT1301 - Health Data Content and Structure (3)
  - HPRS2302 - Medical Terminology for Allied Health (3)
  - MDCA1302 - Human Disease/Pathophysiology (3)
  - ITSC1309 - Integrated Software Applications I (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - HITT1253 - Legal and Ethical Aspects of Health Information (2)
    - HITT1341 - Coding and Classification Systems (3)
    - HITT1311 - Health Information Systems (3)
  - Complete at least 4 credits from the following:
    - BIOL2401 - Anatomy & Physiology I (lecture + lab) (4)
    - BIOL2301 - Anatomy & Physiology I (lecture) (3)
    - BIOL2101 - Anatomy & Physiology I (lab) (1)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - HITT1342 - Ambulatory Coding (3)
    - HITT2335 - Coding and Reimbursement Methodologies (3)
    - HITT2260 - Clinical - Health Information/Medical Records Technology/Technician (2)
  - Complete at least 4 credits from the following:
    - BIOL2402 - Anatomy & Physiology II (lecture + lab) (4)
    - BIOL2302 - Anatomy & Physiology II (lecture) (3)
    - BIOL2102 - Anatomy & Physiology II (lab) (1)

Degree Plan Credits **36**

Capstone

- Complete the following:
  - HITT2260 - Clinical - Health Information/Medical Records Technology/Technician (2)

Pre/Corequisites

- HITT 1341, HITT 1342 Prerequisite(s): HPRS 2302 Pre-corequisite MDCA 1302
- HITT 2335 Prerequisite(s): HITT 1341

Health Information Technology - Health Information Technology - Medical Office Specialist CER1

Locations

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HITT1301 - Health Data Content and Structure (3)
    - HPRS2302 - Medical Terminology for Allied Health (3)
    - MDCA1302 - Human Disease/Pathophysiology (3)
    - ITSC1309 - Integrated Software Applications I (3)

Semester 2
11 Total Credits
keyboard_arrow_up

- Complete the following:
    - HITT1253 - Legal and Ethical Aspects of Health Information (2)
    - HITT1311 - Health Information Systems (3)
    - HITT1342 - Ambulatory Coding (3)
    - HITT1341 - Coding and Classification Systems (3)

Degree Plan Credits **23**

Capstone

- Complete the following:
    - HITT1311 - Health Information Systems (3)

Pre/Corequisites

- HITT 1341, HITT 1342 Prerequisite(s): HPRS 2302 Pre-corequisite MDCA 1302

Health Information Technology - Health Information Technology AAS

Locations

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HITT1301 - Health Data Content and Structure (3)
    - HPRS2302 - Medical Terminology for Allied Health (3)
    - MDCA1302 - Human Disease/Pathophysiology (3)
    - ITSC1309 - Integrated Software Applications I (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - HITT1253 - Legal and Ethical Aspects of Health Information (2)
        - HITT1341 - Coding and Classification Systems (3)
        - HITT1311 - Health Information Systems (3)
    - Complete at least 4 credits from the following:
        - BIOL2301 - Anatomy & Physiology I (lecture) (3)
        - BIOL2101 - Anatomy & Physiology I (lab) (1)
        - BIOL2401 - Anatomy & Physiology I (lecture + lab) (4)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - HITT1342 - Ambulatory Coding (3)
        - HITT1345 - Health Care Delivery Systems (3)
        - HITT2335 - Coding and Reimbursement Methodologies (3)
    - Complete at least 4 credits from the following:
        - BIOL2302 - Anatomy & Physiology II (lecture) (3)
        - BIOL2102 - Anatomy & Physiology II (lab) (1)
        - BIOL2402 - Anatomy & Physiology II (lecture + lab) (4)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - HITT2346 - Advanced Medical Coding (3)
        - HITT2339 - Health Information Organization and Supervision (3)
        - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 5
11 Total Credits
keyboard_arrow_up

- Complete the following:
    - HITT2249 - RHIT Competency Review (2)
    - HITT2443 - Quality Assessment and Performance Improvement (4)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - HITT2260 - Clinical - Health Information/Medical Records Technology/Technician (2)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - HITT2260 - Clinical - Health Information/Medical Records Technology/Technician (2)

Pre/Corequisites

- HITT 1341, HITT 1342 Prerequisite(s): HPRS 2302 Pre-corequisite MDCA 1302
- HITT 2335 Prerequisite(s): HITT 1341
- HITT 2346 Prerequisite(s): HITT 1341, HITT 1342

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics) (3)
    - GOVT2306 - Texas Government (Texas constitution & topics) (3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - HIST1301 - United States History I (3)
    - HIST1302 - United States History II (3)
    - HIST2312 - Western Civilization II (3)
    - HIST2321 - World Civilizations I (3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I (3)

Heating, Ventilation, & Air Conditioning Technology

Description

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 - Heating, Ventilation & Air Conditioning (HVAC) Technology - Residential Service Technician CER1

Locations

Waco
Williamson County
Harlingen
Fort Bend County
North Texas
Abilene

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART1301 - Basic Electricity for HVAC (3)
    - HART1307 - Refrigeration Principles (3)
    - HART1310 - HVAC Shop Practices and Tools (3)
    - HART1345 - Gas and Electric Heating (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART1303 - Air Conditioning Control Principles (3)
    - HART1341 - Residential Air Conditioning (3)
    - HART2338 - Air Conditioning Installation and Startup (3)
    - HART2336 - Air Conditioning Troubleshooting (3)
    - HART2349 - Heat Pumps (3)

Degree Plan Credits **27**

Capstone

- Complete the following:
    - HART2336 - Air Conditioning Troubleshooting (3)

Pre/Corequisites

- HART 1345 Prerequisite(s): HART 1301 (Prerequisite or Corequisite)
- HART 1303 Prerequisite(s): HART 1301, HART 1307, HART 1345
- HART 1341 Prerequisite(s): HART 1301, HART 1307
- HART 2336 Prerequisite(s): HART 1303, HART 1345, HART 1341
- HART 2349 Prerequisite(s): HART 1303, HART 1341

Heating, Ventilation, & Air Conditioning Technology - Heating, Ventilation & Air Conditioning (HVAC) Technology AAS

Locations

Waco
Williamson County
Harlingen
Fort Bend County
North Texas
Abilene

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART1301 - Basic Electricity for HVAC (3)
    - HART1307 - Refrigeration Principles (3)
    - HART1310 - HVAC Shop Practices and Tools (3)
    - HART1345 - Gas and Electric Heating (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART1303 - Air Conditioning Control Principles (3)
    - HART1341 - Residential Air Conditioning (3)
    - HART2342 - Commercial Refrigeration (3)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART2331 - Advanced Electricity for HVAC (3)
    - HART2336 - Air Conditioning Troubleshooting (3)
    - HART2341 - Commercial Air Conditioning (3)
    - HART2349 - Heat Pumps (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART2343 - Industrial Air Conditioning (3)
    - HART2345 - Residential Air Conditioning Systems Design (3)
    - ENGL1301 - Composition I (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART2334 - Advanced Air Conditioning Controls (3)
    - HART2358 - Testing, Adjusting, and Balancing HVAC Systems (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - HART2345 - Residential Air Conditioning Systems Design (3)

Pre/Corequisites

- Complete all of the following
  - HART 1345 Prerequisite(s): HART 1301 (Pre or Co)
  - HART 1303 Prerequisite(s): HART 1301, HART 1307, HART 1345
  - HART 1341 Prerequisite(s): HART 1301, HART 1307
  - HART 2342 Prerequisite(s): HART 1301, HART 1307
  - HART 2331 Prerequisite(s): HART 1303
  - HART 2336 Prerequisite(s): HART 1303, HART 1345, HART 1341
  - HART 2341 Prerequisite(s): HART 1303, HART 1341
  - HART 2349 Prerequisite(s): HART 1303, HART 1341
  - HART 2343 Prerequisite(s): HART 2336, HART 2331, HART 2341
  - HART 2345 Prerequisite(s): HART 2336, HART 2349
  - HART 2334 Prerequisite(s): HART 2336
  - HART 2358 Prerequisite(s): HART 2331

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
  - BIOL1306 - Biology for Science Majors I (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL1308 - Biology for Non-Science Majors I(3)
  - BIOL1309 - Biology for Non-Science Majors II(3)
  - BIOL2301 - Anatomy & Physiology I (lecture)(3)
  - BIOL2302 - Anatomy & Physiology II (lecture)(3)
  - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
  - CHEM1305 - Introductory Chemistry I (lecture)(3)
  - CHEM1311 - General Chemistry I (lecture)(3)
  - CHEM1312 - General Chemistry II (lecture)(3)
  - MATH1314 - College Algebra (3 SCH version)(3)
  - MATH1316 - Plane Trigonometry(3)
  - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
  - MATH1342 - Elementary Statistical Methods(3)
  - PHYS1315 - Physical Science I (lecture)(3)
  - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - ANTH2346 - General Anthropology(3)
  - ECON1301 - Introduction to Economics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GEOG1302 - Human Geography(3)
  - GEOG1303 - World Regional Geography(3)
  - PSYC1100 - Learning Framework(1)
  - PSYC2301 - General Psychology(3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - HIST2312 - Western Civilization II(3)
  - HIST2321 - World Civilizations I(3)
  - SOCI1301 - Introduction to Sociology(3)
  - SOCI1306 - Social Problems(3)
  - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2319 - American Minority Studies(3)
  - HUMA2323 - World Cultures(3)
  - PHIL1301 - Introduction to Philosophy(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2303 - Introduction to Formal Logic(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ARTS1301 - Art Appreciation(3)

- ARTS2326 - Sculpture I(3)
- ARTS2326 - Sculpture I(3)
- MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:

keyboard_arrow_up

General Education Electives
  - ENGL1301 - Composition I(3)
  - ENGL1302 - Composition II(3)
  - ENGL2311 - Technical & Business Writing(3)
  - HIST2321 - World Civilizations I(3)
  - SPCH1315 - Public Speaking(3)
  - SPCH1318 - Interpersonal Communication(3)
  - SPCH1321 - Business & Professional Communication(3)
  - ARTS1301 - Art Appreciation(3)
  - ENGL2321 - British Literature(3)
  - ENGL2326 - American Literature (single-Semester Course)(3)
  - ENGL2341 - Forms of Literature(3)
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2323 - World Cultures(3)
  - MUSI1306 - Music Appreciation(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - PSYC2301 - General Psychology(3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - SOCI1301 - Introduction to Sociology(3)
  - BIOL1306 - Biology for Science Majors I (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL1308 - Biology for Non-Science Majors I(3)
  - BIOL1309 - Biology for Non-Science Majors II(3)
  - BIOL2301 - Anatomy & Physiology I (lecture)(3)
  - BIOL2302 - Anatomy & Physiology II (lecture)(3)
  - CHEM1305 - Introductory Chemistry I (lecture)(3)
  - CHEM1311 - General Chemistry I (lecture)(3)
  - CHEM1412 - General Chemistry II(4)
  - MATH1314 - College Algebra (3 SCH version)(3)
  - MATH1316 - Plane Trigonometry(3)
  - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
  - MATH1342 - Elementary Statistical Methods(3)
  - PHYS1315 - Physical Science I (lecture)(3)
  - PHYS1315 - Physical Science I (lecture)(3)

Heating, Ventilation, & Air Conditioning Technology - Heating, Ventilation & Air Conditioning (HVAC) Technology CER1

Locations

Waco
Williamson County
Harlingen
Fort Bend County
North Texas
Abilene

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART1301 - Basic Electricity for HVAC (3)
    - HART1307 - Refrigeration Principles (3)
    - HART1310 - HVAC Shop Practices and Tools (3)
    - HART1345 - Gas and Electric Heating (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART1303 - Air Conditioning Control Principles (3)
    - HART1341 - Residential Air Conditioning (3)
    - HART2338 - Air Conditioning Installation and Startup (3)
    - HART2342 - Commercial Refrigeration (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART2331 - Advanced Electricity for HVAC (3)
    - HART2336 - Air Conditioning Troubleshooting (3)
    - HART2341 - Commercial Air Conditioning (3)
    - HART2349 - Heat Pumps (3)

Degree Plan Credits **36**

Capstone

- Complete the following:
    - HART2336 - Air Conditioning Troubleshooting (3)

Pre/Corequisites

- HART 1345 Prerequisite(s): HART 1301 (Prerequisite or Corequisite)
- HART 1303 Prerequisite(s): HART 1301, HART 1307, HART 1345
- HART 1341, HART 2342 Prerequisite(s): HART 1301, HART 1307
- HART 2331 Prerequisite(s): HART 1303
- HART 2336 Prerequisite(s): HART 1303, HART 1345, HART 1341
- HART 2341, HART 2349 Prerequisite(s): HART 1303, HART 1341

Heating, Ventilation, & Air Conditioning Technology - Heating, Ventilation & Air Conditioning (HVAC) Technology CER2

Locations

Waco
Williamson County
Harlingen
Fort Bend County
North Texas
Abilene

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART1301 - Basic Electricity for HVAC (3)
    - HART1307 - Refrigeration Principles (3)
    - HART1310 - HVAC Shop Practices and Tools (3)
    - HART1345 - Gas and Electric Heating (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART1303 - Air Conditioning Control Principles (3)
    - HART1341 - Residential Air Conditioning (3)
    - HART2338 - Air Conditioning Installation and Startup (3)
    - HART2342 - Commercial Refrigeration (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART2331 - Advanced Electricity for HVAC (3)
    - HART2336 - Air Conditioning Troubleshooting (3)
    - HART2341 - Commercial Air Conditioning (3)
    - HART2349 - Heat Pumps (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HART2343 - Industrial Air Conditioning (3)
    - HART2345 - Residential Air Conditioning Systems Design (3)
    - HART2334 - Advanced Air Conditioning Controls (3)
    - HART2358 - Testing, Adjusting, and Balancing HVAC Systems (3)

Degree Plan Credits **48**

Capstone

- Complete the following:
    - HART2345 - Residential Air Conditioning Systems Design (3)

Pre/Corequisites

- HART 1345 Prerequisite(s): HART 1301 (Prerequisite or Corequisite)
- HART 1303 Prerequisite(s): HART 1301, HART 1307, HART 1345
- HART 1341 Prerequisite(s): HART 1301, HART 1307
- HART 2342 Prerequisite(s): HART 1301, HART 1307
- HART 2331 Prerequisite(s): HART 1303
- HART 2336 Prerequisite(s): HART 1303, HART 1345, HART 1341
- HART 2341 Prerequisite(s): HART 1303, HART 1341
- HART 2349 Prerequisite(s): HART 1303, HART 1341
- HART 2343 Prerequisite(s): HART 2336, HART 2331, HART 1341
- HART 2345 Prerequisite(s): HART 2336, HART 2349
- HART 2334 Prerequisite(s): HART 2336
- HART 2358 Prerequisite(s): HART 2331

Industrial Maintenance

Description

The Industrial Maintenance award is one of the pathways for the Advanced Manufacturing Technology program. The courses in this program are chosen to guide students into a successful career in an industrial technology environment. A graduate has the opportunity to work with installation, troubleshooting and repair of mechanical, electrical and fluid power systems. The skills the student will learn and demonstrate 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, basic programming and installation of programmable logic controllers (PLCs) and variable frequency drives (VFDs), and troubleshooting individual systems as well as systems that combine all of the specific skills. This program takes basic comprehension of component and system theory and grows those skills into a full hands-on lab experience that will closely simulate a taste of an industrial environment. For quicker entry into the industry, industrial maintenance certificates are also available.

Industrial Maintenance - Advanced Manufacturing - Industrial Maintenance AAS

Locations

Abilene
Williamson County
Fort Bend County
Marshall
New Braunfels
North Texas
Waco

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - INMT1305 - Introduction to Industrial Maintenance (3)
    - INMT1373 - Print Reading for Industrial Equipment Technician (3)
    - RBTC1309 - Pneumatics (3)
    - ACGM3MTH - Gen Ed Mathematics Elective (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - CETT1305 - AC Circuits (3)
        - ELPT1341 - Motor Control (3)
        - RBTC1347 - Electro-Mechanical Devices (3)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - Complete at least 3 credits from the following:
        - ENGL2311 - Technical & Business Writing (3)
        - ENGL1301 - Composition I (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - INMT2303 - Pumps, Compressors & Mechanical Drives (3)
    - HYDR1305 - Basic Hydraulics (3)
    - INMT1371 - Industrial Manufacturing PLC Installation (3)
    - INMT2301 - Machinery Installation (3)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 4
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - INMT2345 - Industrial Troubleshooting (3)
    - MCHN2305 - Millwright III (3)
    - INMT2371 - Intermediate PLC Applications (3)
    - HYDR1345 - Hydraulics and Pneumatics (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - INMT2345 - Industrial Troubleshooting (3)

Pre/Corequisites

- CETT 1305 Prerequisite(s): CETT 1303
- ELPT 1341 Prerequisite(s): AACT 1371 or CETT 1303 or ELPT 1311 or ELPT 1319 or INMT 1372
- INMT 2303, INMT 2301 Prerequisite(s): INMT 1305
- INMT 1371 Prerequisite(s): ELPT 1341 (Prerequisite or Corequisite)
- INMT 2345 Prerequisite(s): ELPT 1341
- MCHN 2305 Prerequisite(s): INMT 2303
- INMT 2371 Prerequisite(s): ELPT 2319 or INMT 1371

Industrial Maintenance - Advanced Manufacturing - Industrial Maintenance CER2

<u>**Locations**</u>

Abilene
Williamson County
Fort Bend County
New Braunfels
North Texas
Waco

<u>**Program Requirements**</u>

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - INMT1305 - Introduction to Industrial Maintenance (3)
    - INMT1373 - Print Reading for Industrial Equipment Technician (3)
    - RBTC1309 - Pneumatics (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1305 - AC Circuits (3)
    - ELPT1341 - Motor Control (3)
    - RBTC1347 - Electro-Mechanical Devices (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - INMT2303 - Pumps, Compressors & Mechanical Drives (3)
    - HYDR1305 - Basic Hydraulics (3)
    - INMT1371 - Industrial Manufacturing PLC Installation (3)
    - INMT2301 - Machinery Installation (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - INMT2345 - Industrial Troubleshooting (3)
    - MCHN2305 - Millwright III (3)
    - INMT2371 - Intermediate PLC Applications (3)
    - HYDR1345 - Hydraulics and Pneumatics (3)

Degree Plan Credits **45**

<u>**Capstone**</u>

- Complete the following:
    - INMT2345 - Industrial Troubleshooting (3)

<u>**Pre/Corequisites**</u>

- CETT 1305 Prerequisite(s): CETT 1303
- ELPT 1341 Prerequisite(s): AACT 1371 or CETT 1303 or ELPT 1311 or ELPT 1319 or INMT 1372
- INMT 2303, INMT 2301 Prerequisite(s): INMT 1305
- INMT 1371 Prerequisite(s): ELPT 1341 (Prerequisite or Corequisite)
- INMT 2345 Prerequisite(s): ELPT 1341
- MCHN 2305 Prerequisite(s): INMT 2303
- INMT 2371 Prerequisite(s): ELPT 2319 or INMT 1371

Industrial Maintenance - Advanced Manufacturing CER1

Locations

Abilene
Williamson County
Fort Bend County
New Braunfels
North Texas
The WorkSITE
Waco
Marshall

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - INMT1305 - Introduction to Industrial Maintenance (3)
    - INMT1373 - Print Reading for Industrial Equipment Technician (3)
    - RBTC1309 - Pneumatics (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1305 - AC Circuits (3)
    - ELPT1341 - Motor Control (3)
    - RBTC1347 - Electro-Mechanical Devices (3)

Degree Plan Credits **21**

Capstone

- Complete the following:
    - INMT2301 - Machinery Installation (3)

Pre/Corequisites

- CETT 1305 Prerequisite(s): CETT 1303
- ELPT 1341 Prerequisite(s): AACT 1371 or CETT 1303 or ELPT 1311 or ELPT 1319 or INMT 1372

Industrial Maintenance - Industrial Systems Technology - Advanced Manufacturing Technology AAS

Locations

New Braunfels

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INMT1373 - Print Reading for Industrial Equipment Technician (3)
        - INMT1305 - Introduction to Industrial Maintenance (3)
        - ACGM3MTH - Gen Ed Mathematics Elective (3)
    - Complete at least 3 credits from the following:
        - ELPT1311 - Basic Electrical Theory (3)
        - INMT1372 - Introduction to Industrial Electricity (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1341 - Motor Control (3)
    - HYDR1305 - Basic Hydraulics (3)
    - INMT2303 - Pumps, Compressors & Mechanical Drives (3)
    - SPCHX3XX - Gen Ed Speech Elective (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - WLDG1391 - Special Topics in Welder/Welding Technologist (3)
        - ELPT2305 - Motors and Transformers (3)
        - MCHN1338 - Basic Machine Shop I (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - RBTC1301 - Programmable Logic Controllers (3)
    - RBTC1309 - Pneumatics (3)
    - INMT2301 - Machinery Installation (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - RBTC1343 - Robotics (3)
    - ELPT2331 - AC/DC Drives (3)
    - INMT2345 - Industrial Troubleshooting (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - INMT2345 - Industrial Troubleshooting (3)

Pre/Corequisites

- Complete all of the following
  - ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371
  - INMT 2303 Prerequisite(s): INMT 1305
  - ELPT 2305 Prerequisite(s): ELPT 1341 (Pre or Co)
  - MCHN 1338 Prerequisite(s): INMT 1373
  - RBTC 1301 Prerequisite(s): ELPT 1341or INTC 1357
  - INMT 2301 Prerequisite(s): INMT 1305
  - ELPT 2331 Prerequisite(s): (ELPT 1351 or ELPT 2305), ELPT 1341
  - INMT 2345 Prerequisite(s): ELPT 1341

Industrial Maintenance - Industrial Systems Technology - Electrical AAS

Locations

Marshall
North Texas

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - INMT1373 - Print Reading for Industrial Equipment Technician (3)
    - INMT1305 - Introduction to Industrial Maintenance (3)
    - WLDG1391 - Special Topics in Welder/Welding Technologist (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
  - Complete at least 3 credits from the following:
    - ELPT1311 - Basic Electrical Theory (3)
    - INMT1372 - Introduction to Industrial Electricity (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - ELPT1341 - Motor Control (3)
  - HYDR1345 - Hydraulics and Pneumatics (3)
  - ELPT1351 - Electrical Machines (3)
  - INMT2303 - Pumps, Compressors & Mechanical Drives (3)
  - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - INMT1375 - Industrial and Manufacturing Wiring Applications (3)
    - INMT2301 - Machinery Installation (3)
    - ELPT2331 - AC/DC Drives (3)
    - ENGL1301 - Composition I (3)
  - Complete at least 3 credits from the following:
    - ELPT2319 - Programmable Logic Controllers I (3)
    - INMT1371 - Industrial Manufacturing PLC Installation (3)

Semester 4
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - INMT2345 - Industrial Troubleshooting (3)
  - INMT1317 - Industrial Automation (3)
  - ELPT2355 - Programmable Logic Controllers II (3)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
  - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - INMT2345 - Industrial Troubleshooting (3)

Pre/Corequisites

- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371 or INMT 1372
- ELPT 1351 Prerequisite(s): ELPT 1341 (Prerequisite or Corequisite)
- INMT 2303 Prerequisite(s): INMT 1305
- INMT 1374 Prerequisite(s): ELPT 1311 or INMT 1372
- ELPT 2319, INMT 1371 Prerequisite(s): ELPT 1341 (Prerequisite or Corequisite)
- INMT 2301 Prerequisite(s): INMT 1305
- ELPT 2331, INMT 2345 Prerequisite(s): ELPT 1341
- ELPT 2355 Prerequisite(s): ELPT 1309 or INMT1371

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  General Education Electives
    - ENGL1301 - Composition I(3)
    - ENGL1302 - Composition II(3)
    - ENGL2311 - Technical & Business Writing(3)
    - HIST2321 - World Civilizations I(3)
    - SPCH1315 - Public Speaking(3)
    - SPCH1318 - Interpersonal Communication(3)
    - SPCH1321 - Business & Professional Communication(3)
    - ARTS1301 - Art Appreciation(3)
    - ENGL2321 - British Literature(3)

- ENGL2326 - American Literature (single-Semester Course) (3)
- ENGL2341 - Forms of Literature (3)
- HUMA1301 - Introduction to Humanities I (3)
- HUMA2323 - World Cultures (3)
- MUSI1306 - Music Appreciation (3)
- PHIL1304 - Introduction to World Religions (3)
- PHIL2306 - Introduction to Ethics (3)
- ECON2301 - Principles of Macroeconomics (3)
- ECON2302 - Principles of Microeconomics (3)
- GOVT2305 - Federal Government (Federal constitution & topics) (3)
- GOVT2306 - Texas Government (Texas constitution & topics) (3)
- HIST1301 - United States History I (3)
- HIST1302 - United States History II (3)
- PSYC2301 - General Psychology (3)
- PSYC2314 - Lifespan Growth & Development (3)
- SOCI1301 - Introduction to Sociology (3)
- BIOL1306 - Biology for Science Majors I (lecture) (3)
- BIOL1307 - Biology for Science Majors II (3)
- BIOL1308 - Biology for Non-Science Majors I (3)
- BIOL1309 - Biology for Non-Science Majors II (3)
- BIOL2301 - Anatomy & Physiology I (lecture) (3)
- BIOL2302 - Anatomy & Physiology II (lecture) (3)
- CHEM1305 - Introductory Chemistry I (lecture) (3)
- CHEM1311 - General Chemistry I (lecture) (3)
- CHEM1412 - General Chemistry II (4)
- MATH1314 - College Algebra (3 SCH version) (3)
- MATH1316 - Plane Trigonometry (3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning) (3)
- MATH1342 - Elementary Statistical Methods (3)
- PHYS1315 - Physical Science I (lecture) (3)
- PHYS1315 - Physical Science I (lecture) (3)

Industrial Maintenance - Industrial Systems Technology - Electrical CER1

<u>**Locations**</u>

Marshall
North Texas
New Braunfels

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INMT1373 - Print Reading for Industrial Equipment Technician (3)
        - INMT1305 - Introduction to Industrial Maintenance (3)
    - Complete at least 3 credits from the following:
        - ELPT1311 - Basic Electrical Theory (3)
        - INMT1372 - Introduction to Industrial Electricity (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1341 - Motor Control (3)
    - HYDR1345 - Hydraulics and Pneumatics (3)
    - INMT2303 - Pumps, Compressors & Mechanical Drives (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INMT1374 - Industrial and Manufacturing Wirning Applications (3)
        - INMT2301 - Machinery Installation (3)
    - Complete at least 3 credits from the following:
        - ELPT2319 - Programmable Logic Controllers I (3)
        - INMT1371 - Industrial Manufacturing PLC Installation (3)

Degree Plan Credits **27**

Capstone

- Complete the following:
    - INMT2301 - Machinery Installation (3)

Pre/Corequisites

- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371 or INMT 1372
- INMT 2303, INMT 2301 Prerequisite(s): INMT 1305
- INMT 1374 Prerequisite(s): ELPT 1311 or INMT 1372
- ELPT 2319, INMT 1371 Prerequisite(s): ELPT 1341 (Prerequisite or Corequisite)

Industrial Maintenance - Industrial Systems Technology - Electrical CER2

Locations

Marshall
North Texas

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INMT1373 - Print Reading for Industrial Equipment Technician (3)
        - INMT1305 - Introduction to Industrial Maintenance (3)
        - WLDG1391 - Special Topics in Welder/Welding Technologist (3)
    - Complete at least 3 credits from the following:
        - ELPT1311 - Basic Electrical Theory (3)
        - INMT1372 - Introduction to Industrial Electricity (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1345 - Commercial Wiring (3)
    - HYDR1345 - Hydraulics and Pneumatics (3)
    - ELPT1351 - Electrical Machines (3)
    - INMT2303 - Pumps, Compressors & Mechanical Drives (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INMT1374 - Industrial and Manufacturing Wirning Applications (3)
        - INMT2301 - Machinery Installation (3)
        - ELPT2331 - AC/DC Drives (3)
    - Complete at least 3 credits from the following:
        - ELPT2319 - Programmable Logic Controllers I (3)
        - INMT1371 - Industrial Manufacturing PLC Installation (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - INMT2345 - Industrial Troubleshooting (3)
    - INMT1317 - Industrial Automation (3)
    - ELPT2355 - Programmable Logic Controllers II (3)

Degree Plan Credits **45**

Capstone

- Complete the following:
    - INMT2345 - Industrial Troubleshooting (3)

Pre/Corequisites

- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371 or INMT 1372
- ELPT 1351 Prerequisite(s): ELPT 1341(Prerequisite or Corequisite)
- INMT 2303, INMT 2301 Prerequisite(s): INMT 1305
- INMT 1374 Prerequisite(s): ELPT 1311 or INMT 1372
- ELPT 2319, INMT 1371 Prerequisite(s): ELPT 1341 (Prerequisite or Corequisite)
- ELPT 2331, INMT 2345 Prerequisite(s): ELPT 1341
- ELPT 2355 Prerequisite(s): ELPT 2319 or INMT 1371

Industrial Maintenance - Industrial Systems Technology - Mechanic Entry Level Technician CER1

Locations

Waco
Williamson County
Fort Bend County
Abilene

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - INMT1373 - Print Reading for Industrial Equipment Technician (3)
    - INMT1305 - Introduction to Industrial Maintenance (3)
    - WLDG1391 - Special Topics in Welder/Welding Technologist (3)
  - Complete at least 3 credits from the following:
    - ELPT1311 - Basic Electrical Theory (3)
    - INMT1372 - Introduction to Industrial Electricity (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ELPT1341 - Motor Control (3)
  - HYDR1305 - Basic Hydraulics (3)
  - INMT2303 - Pumps, Compressors & Mechanical Drives (3)

Degree Plan Credits **21**

Capstone

- Complete the following:
  - INMT2303 - Pumps, Compressors & Mechanical Drives (3)

Pre/Corequisites

- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371 or INMT1372
- INMT 2303 Prerequisite(s): INMT 1305

Industrial Maintenance - Industrial Systems Technology - Mechanical AAS

Locations

Waco
Williamson County
Fort Bend County
Abilene

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INMT1373 - Print Reading for Industrial Equipment Technician (3)
        - INMT1305 - Introduction to Industrial Maintenance (3)
        - WLDG1391 - Special Topics in Welder/Welding Technologist (3)
        - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
    - Complete at least 3 credits from the following:
        - ELPT1311 - Basic Electrical Theory (3)
        - INMT1372 - Introduction to Industrial Electricity (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - PFPB2308 - Piping Standards and Materials (3)
    - ELPT1341 - Motor Control (3)
    - HYDR1305 - Basic Hydraulics (3)
    - INMT2303 - Pumps, Compressors & Mechanical Drives (3)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INMT1355 - Industrial Power Plant Systems (3)
        - INMT2301 - Machinery Installation (3)
        - RBTC1309 - Pneumatics (3)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - Complete at least 3 credits from the following:
        - ELPT2319 - Programmable Logic Controllers I (3)
        - INMT1371 - Industrial Manufacturing PLC Installation (3)

Semester 4
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INMT2345 - Industrial Troubleshooting (3)
        - ELPT2355 - Programmable Logic Controllers II (3)
        - CBFM1303 - Boiler Maintenance (3)
        - ACGM3GED - Gen Ed Elective (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - INMT2345 - Industrial Troubleshooting (3)

Pre/Corequisites

- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371 or INMT 1372
- INMT 2303, INMT 1355, INMT 2301 Prerequisite(s): INMT 1305
- ELPT 2319, INMT 1371 Prerequisite(s): ELPT 1341 (Prerequisite or Corequisite)
- RBTC 1309 Prerequisite(s): HYDR 1305
- INMT 2345 Prerequisite(s): ELPT 1341
- ELPT 2355 Prerequisite(s): ELPT 2319 or INMT 1371

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  General Education Electives
    - ENGL1301 - Composition I(3)

- ENGL1302 - Composition II(3)
- ENGL2311 - Technical & Business Writing(3)
- HIST2321 - World Civilizations I(3)
- SPCH1315 - Public Speaking(3)
- SPCH1318 - Interpersonal Communication(3)
- SPCH1321 - Business & Professional Communication(3)
- ARTS1301 - Art Appreciation(3)
- ENGL2321 - British Literature(3)
- ENGL2326 - American Literature (single-Semester Course)(3)
- ENGL2341 - Forms of Literature(3)
- HUMA1301 - Introduction to Humanities I(3)
- HUMA2323 - World Cultures(3)
- MUSI1306 - Music Appreciation(3)
- PHIL1304 - Introduction to World Religions(3)
- PHIL2306 - Introduction to Ethics(3)
- ECON2301 - Principles of Macroeconomics(3)
- ECON2302 - Principles of Microeconomics(3)
- GOVT2305 - Federal Government (Federal constitution & topics)(3)
- GOVT2306 - Texas Government (Texas constitution & topics)(3)
- HIST1301 - United States History I(3)
- HIST1302 - United States History II(3)
- PSYC2301 - General Psychology(3)
- PSYC2314 - Lifespan Growth & Development(3)
- SOCI1301 - Introduction to Sociology(3)
- BIOL1306 - Biology for Science Majors I (lecture)(3)
- BIOL1307 - Biology for Science Majors II(3)
- BIOL1308 - Biology for Non-Science Majors I(3)
- BIOL1309 - Biology for Non-Science Majors II(3)
- BIOL2301 - Anatomy & Physiology I (lecture)(3)
- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1412 - General Chemistry II(4)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)

Industrial Maintenance - Industrial Systems Technology - Mechanical CER1

<u>Locations</u>

Waco
Williamson County
Fort Bend County
Abilene

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INMT1373 - Print Reading for Industrial Equipment Technician (3)
        - INMT1305 - Introduction to Industrial Maintenance (3)
        - WLDG1391 - Special Topics in Welder/Welding Technologist (3)
    - Complete at least 3 credits from the following:
        - ELPT1311 - Basic Electrical Theory (3)
        - INMT1372 - Introduction to Industrial Electricity (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - PFPB2308 - Piping Standards and Materials (3)
    - ELPT1341 - Motor Control (3)
    - HYDR1305 - Basic Hydraulics (3)
    - INMT2303 - Pumps, Compressors & Mechanical Drives (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INMT1355 - Industrial Power Plant Systems (3)
        - INMT2301 - Machinery Installation (3)
        - RBTC1309 - Pneumatics (3)
    - Complete at least 3 credits from the following:
        - ELPT2319 - Programmable Logic Controllers I (3)
        - INMT1371 - Industrial Manufacturing PLC Installation (3)

Degree Plan Credits **36**

Capstone

- Complete the following:
    - INMT1355 - Industrial Power Plant Systems (3)

Pre/Corequisites

- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371 or INMT1372
- INMT 2303, INMT 1355, INMT 2301 Prerequisite(s): INMT 1305
- ELPT 2319, INMT 1371 Prerequisite(s): ELPT 1341 (Prerequisite or Corequisite)
- RBTC 1309 Prerequisite(s): HYDR 1305

Industrial Maintenance - Industrial Systems Technology - Mechanical CER2

Locations

Waco
Williamson County
Fort Bend County
Abilene

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - INMT1373 - Print Reading for Industrial Equipment Technician (3)
    - INMT1305 - Introduction to Industrial Maintenance (3)
    - WLDG1391 - Special Topics in Welder/Welding Technologist (3)
  - Complete at least 3 credits from the following:
    - ELPT1311 - Basic Electrical Theory (3)
    - INMT1372 - Introduction to Industrial Electricity (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - PFPB2308 - Piping Standards and Materials (3)
  - ELPT1341 - Motor Control (3)
  - HYDR1305 - Basic Hydraulics (3)
  - INMT2303 - Pumps, Compressors & Mechanical Drives (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - INMT1355 - Industrial Power Plant Systems (3)
    - INMT2301 - Machinery Installation (3)
    - RBTC1309 - Pneumatics (3)
  - Complete at least 3 credits from the following:
    - ELPT2319 - Programmable Logic Controllers I (3)
    - INMT1371 - Industrial Manufacturing PLC Installation (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - INMT2345 - Industrial Troubleshooting (3)
  - ELPT2355 - Programmable Logic Controllers II (3)
  - CBFM1303 - Boiler Maintenance (3)

Degree Plan Credits **45**

Capstone

- Complete the following:
  - INMT2345 - Industrial Troubleshooting (3)

Pre/Corequisites

- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371 or INMT 1372
- INMT 2303, INMT 1355, INMT 2301 Prerequisite(s): INMT 1305
- ELPT 2319, INMT 1371 Prerequisite(s): ELPT 1341 (Prerequisite or Corequisite)
- RBTC 1309 Prerequisite(s): HYDR 1305
- INMT 2345 Prerequisite(s): ELPT 1341
- ELPT 2355 Prerequisite(s): ELPT 2319 or INMT 1371

Instrumentation Technology

Description

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 technician to keep these systems running. TSTC's Instrumentation Technology graduates are field-ready and qualified to go to work with minimum on-the-job training.

Instrumentation Technology - Instrumentation Technology AAS

Locations

Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - CETT1303 - DC Circuits (3)
        - INTC1305 - Introduction to Instrumentation (3)
        - MATH1316 - Plane Trigonometry (3)
    - Complete at least 3 credits from the following:
        - DFTG1313 - Drafting for Specific Occupations (3)
        - INTC1312 - Instrumentation and Safety (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - CETT1305 - AC Circuits (3)
        - INTC1341 - Principles of Automatic Control (3)
    - Complete at least 3 credits from the following:
        - ELPT1341 - Motor Control (3)
        - INTC1357 - AC/DC Motor Control (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - INTC1355 - Unit Operations (3)
        - INTC2336 - Distributed Control and Programmable Logic (3)
        - RBTC1301 - Programmable Logic Controllers (3)
    - Complete at least 3 credits from the following:
        - PHYS1310 - Elementary Physics (3)
        - PHYS1315 - Physical Science I (lecture) (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - INTC1350 - Digital Measurement and Controls (3)
    - INTC1356 - Instrumentation Calibration (3)
    - INTC2333 - Instrumentation Systems Installation (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - INTC1348 - Analytical Instrumentation (3)
    - INTC2310 - Principles of Industrial Measurements II (3)
    - INTC2350 - Fieldbus Process Control Systems (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - INTC2350 - Fieldbus Process Control Systems (3)

Pre/Corequisites

- INTC 1305 Prerequisite(s): CETT 1303 (Prerequisite or Corequisite)
- CETT 1305 Prerequisite(s): CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371
- INTC 1355 Prerequisite(s): INTC 1341
- INTC 2336 Prerequisite(s): RBTC 1301 (Prerequisite or Corequisite)
- RBTC 1301 Prerequisite(s): ELPT 1341or INTC 1357
- INTC 1348 Prerequisite(s): INTC 1341
- INTC 1350 Prerequisite(s): RBTC 1301
- INTC 1356, INTC 2333, INTC 2310 Prerequisite(s): INTC 1355
- INTC 2350 Prerequisite(s): INTC 2333

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics) (3)
    - GOVT2306 - Texas Government (Texas constitution & topics) (3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - HIST1301 - United States History I (3)
    - HIST1302 - United States History II (3)
    - HIST2312 - Western Civilization II (3)
    - HIST2321 - World Civilizations I (3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I (3)

Mathematics

Description

The Mathematics department supports and enhances TSTC's technical education mission. It helps to provide Texas industry with employees who perform well at entry level positions through their competence in mathematics and problem solving techniques. Students learn the principles of physics and mathematics. They use this knowledge to prepare 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.

First Year Seminar

Students are required to enroll in the First-Year Seminar course, TSTC 1101 College Success, 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 Catalog and Student Handbook under 07. First Steps at TSTC section 04. First Year Seminar Courses (TSTC 1101 and TSTC 1102).

Mathematics - Mathematics AS

Locations

Harlingen

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - MATH2312 - Pre-Calculus Math (3 SCH version) (3)
    - ENGL1301 - Composition I (3)
    - ACGM3CAR - Creative Arts Elective (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - MATH2413 - Calculus I (4 SCH version) (4)
    - ENGL1302 - Composition II (3)
    - GOVT2305 - Federal Government (Federal constitution & topics) (3)
    - ACGM3LPS - Life and Physical Science Elective (3)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - MATH2414 - Calculus II (4 SCH version) (4)
    - GOVT2306 - Texas Government (Texas constitution & topics) (3)
    - ACGM3LPS - Life and Physical Science Elective (3)
    - ACGM3LPC - Language, Philosophy and Culture Elective (3)

Semester 4
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - MATH2415 - Calculus III (4 SCH version) (4)
    - SPCHX3XX - Gen Ed Speech Elective (3)
    - HIST1301 - United States History I (3)
    - ACGM3CAOB - Component Area Option   (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - HIST1302 - United States History II (3)
    - MATH2320 - Differential Equations (3 SCH version) (3)
    - MATH3MTH - Gen Ed Mathematics Elective (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - MATH2320 - Differential Equations (3 SCH version) (3)

Pre/Corequisites

- MATH 2312 Prerequisite(s): MATH 1314 or MATH 1316
- MATH 2413 Prerequisite(s): (MATH 1314 and MATH 1316 *) or MATH 2312 or MATH 2412
- ENGL 1302 Prerequisite(s): ENGL 1301
- MATH 2414 Prerequisite(s): MATH 2413
- MATH 2415, MATH 2320 Prerequisite(s): MATH 2414
- MATH 2320 Prerequisite(s): MATH 2414

Elective Options

- Complete at least 1 courses from the following:
    keyboard_arrow_up

Creative Arts Elective
- ARTS1301 - Art Appreciation (3)
- MUSI1306 - Music Appreciation (3)

- Complete at least 2 courses from the following:

  keyboard_arrow_up

  Life & Physical Science Elective
  - BIOL1306 - Biology for Science Majors I (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL1308 - Biology for Non-Science Majors I(3)
  - BIOL1309 - Biology for Non-Science Majors II(3)
  - BIOL2301 - Anatomy & Physiology I (lecture)(3)
  - BIOL2302 - Anatomy & Physiology II (lecture)(3)
  - CHEM1311 - General Chemistry I (lecture)(3)
  - CHEM1312 - General Chemistry II (lecture)(3)
  - PHYS1301 - College Physics I (lecture)(3)
  - PHYS1302 - College Physics II (lecture)(3)
  - PHYS1315 - Physical Science I (lecture)(3)
  - PHYS1317 - Physical Science II(3)

- Complete at least 1 courses from the following:

  keyboard_arrow_up

  Language, Philosophy & Culture Elective
  - ENGL2321 - British Literature (3)
  - ENGL2326 - American Literature (single-Semester Course)(3)
  - ENGL2331 - World Literature (3)
  - PHIL1304 - Introduction to World Religions(3)

- Complete at least 1 courses from the following:

  keyboard_arrow_up

  Speech Elective
  - SPCH1311 - Introduction to Speech Communication(3)
  - SPCH1315 - Public Speaking (3)
  - SPCH1318 - Interpersonal Communication (3)
  - SPCH1321 - Business & Professional Communication(3)

- Complete at least 1 courses from the following:

  keyboard_arrow_up

  Component Area Option B (for Academic Core Curriculum)
  - SPCH1311 - Introduction to Speech Communication(3)
  - SPCH1315 - Public Speaking (3)
  - SPCH1318 - Interpersonal Communication (3)
  - SPCH1321 - Business & Professional Communication(3)

- Complete at least courses from the following:

  keyboard_arrow_up

  Math Elective for Math AS
  - MATH1316 - Plane Trigonometry (3)
  - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
  - MATH1314 - College Algebra (3 SCH version)(3)
  - MATH2318 - Linear Algebra (3)

- Complete at least 1 courses from the following:

  keyboard_arrow_up

  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - ANTH2346 - General Anthropology (3)
  - ECON1301 - Introduction to Economics (3)
  - ECON2301 - Principles of Macroeconomics (3)
  - ECON2302 - Principles of Microeconomics (3)
  - GEOG1302 - Human Geography (3)
  - GEOG1303 - World Regional Geography (3)
  - PSYC1100 - Learning Framework (1)
  - PSYC2301 - General Psychology (3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - HIST2312 - Western Civilization II(3)
  - HIST2321 - World Civilizations I(3)
  - SOCI1301 - Introduction to Sociology (3)
  - SOCI1306 - Social Problems (3)
  - SOCI2319 - Minority Studies I(3)

Mechatronics Technology

Description

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, programmable logic controllers, instrumentation, robotics and information technology.

Mechatronics Technology - Mechatronics Technology AAS

Locations

Harlingen

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1319 - Fundamentals of Electricity I (3)
    - MECH1370 - Introduction to Mechatronics (3)
    - ENGL1301 - Composition I (3)
    - MATH1314 - College Algebra (3 SCH version) (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1320 - Fundamentals of Electricity II (3)
    - MECH1371 - Industry Digital Devices (3)
    - MECH1471 - Hydraulic and Pneumatic Systems (4)
    - SPCHX3XX - Gen Ed Speech Elective (3)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - MECH1372 - Basic Programmable Logic Controllers (3)
    - MECH1373 - Motion Control (3)
    - MECH2374 - Robotics Communication (3)
    - MECH2472 - Communication Protocols (4)

Semester 4
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - MECH2370 - Industrial Process Controls (3)
    - MECH2372 - Essentials to Advance PLC (3)
    - MECH2375 - Production Control (3)
    - MECH2471 - Industrial Control Devices (4)

Semester 5
9 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 3 credits from the following:
        - MECH2378 - Internship-Mechatronics Technology (3)
        - MECH2373 - Industry 4.0 Project (3)
    - Complete the following:
        - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - MECH2373 - Industry 4.0 Project (3)

Pre/Corequisites

- CETT 1320 Prerequisite(s): ELPT 1319 ((Prerequisite or Corequisite)) or CETT 1303 (Prerequisite or Corequisite)
- MECH 1371 Prerequisite(s): ELPT 1319 ((Prerequisite or Corequisite)) or CETT 1303 (Prerequisite or Corequisite)
- MECH 1372, MECH 1373, MECH 2370, MECH 2375 Prerequisite(s): ELPT 1320 or CETT 1305
- MECH 2372 Prerequisite(s): MECH 1372
- MECH 2471 Prerequisite(s): MECH 1373
- MECH 2373 Prerequisite(s): MECH 2472, MECH 1373

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
    - SPCH1311 - Introduction to Speech Communication(3)
    - SPCH1315 - Public Speaking(3)
    - SPCH1318 - Interpersonal Communication(3)
    - SPCH1321 - Business & Professional Communication(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)

Occupational Safety & Environmental Compliance Technology

Description

The Occupational Safety and Environmental Compliance (OSEC) program offers in-depth study of Occupational Safety and Health Administration (OSHA) regulations, Environmental Protection Agency (EPA) 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 OSEC 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 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 & Environmental Compliance Technology - Occupational Safety & Environmental Compliance Technology - Environmental Compliance CER1

<u>Locations</u>

Abilene
Fort Bend County
Waco

<u>Program Requirements</u>

Semester 1
14 Total Credits
keyboard_arrow_up

- Complete the following:
  - EPCT1243 - Treatment, Remediation, and Disposal Techniques (2)
  - EPCT1205 - Environmental Regulations Overview (2)
  - OSHT1305 - OSHA Regulations - Construction Industry (3)
  - EPCT2337 - Site Assessment (3)
  - OSHT2401 - OSHA Regulations - General Industry (4)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - EPCT2331 - Industrial Hygiene Applications (3)
  - EPCT1344 - Environmental Sampling and Analysis (3)
  - EPCT1301 - Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics (3)
  - OSHT2320 - Safety Training Presentation Techniques (3)

Degree Plan Credits **26**

<u>Capstone</u>

- Complete the following:
  - OSHT2320 - Safety Training Presentation Techniques (3)

Occupational Safety & Environmental Compliance Technology - Occupational Safety & Environmental Compliance Technology - Occupational Safety CER1

Locations

Abilene
Fort Bend County
Waco

Program Requirements

Semester 1
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - EPCT1307 - Introduction to Environmental Safety and Health (3)
    - OSHT1305 - OSHA Regulations - Construction Industry (3)
    - OSHT2401 - OSHA Regulations - General Industry (4)
    - OSHT1209 - Physical Hazards Control   (2)
    - OSHT2209 - Safety Program Management (2)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - EPCT1301 - Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics (3)
    - OSHT2370 - Safety and Health First Aid Certification (3)
    - OSHT2388 - Internship - Occupational Safety and Health Technology/Technician (3)
    - OSHT2320 - Safety Training Presentation Techniques (3)

Degree Plan Credits **26**

Capstone

- Complete the following:
    - OSHT2320 - Safety Training Presentation Techniques (3)

Occupational Safety & Environmental Compliance Technology - Occupational Safety & Environmental Compliance Technology AAS

Locations

Waco
Fort Bend County
Abilene

Program Requirements

Semester 1
11 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - EPCT1243 - Treatment, Remediation, and Disposal Techniques (2)
        - EPCT1307 - Introduction to Environmental Safety and Health (3)
        - OSHT1305 - OSHA Regulations - Construction Industry (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - OSHT1313 - Accident Prevention, Inspection, & Investigation (3)
    - ITSC1309 - Integrated Software Applications I (3)
    - OSHT2401 - OSHA Regulations - General Industry (4)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - EPCT2331 - Industrial Hygiene Applications (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
    - EPCT1344 - Environmental Sampling and Analysis (3)
    - ACGM3GED - Gen Ed Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - EPCT1205 - Environmental Regulations Overview (2)
    - EPCT2337 - Site Assessment (3)
    - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)
    - OSHT1209 - Physical Hazards Control (2)
    - OSHT2209 - Safety Program Management (2)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - EPCT1301 - Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics (3)
    - OSHT2370 - Safety and Health First Aid Certification (3)
    - OSHT2388 - Internship - Occupational Safety and Health Technology/Technician (3)
    - OSHT2320 - Safety Training Presentation Techniques (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - OSHT2320 - Safety Training Presentation Techniques (3)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics) (3)
    - GOVT2306 - Texas Government (Texas constitution & topics) (3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - HIST1301 - United States History I (3)
    - HIST1302 - United States History II (3)
    - HIST2312 - Western Civilization II (3)
    - HIST2321 - World Civilizations I (3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I (3)
- Complete 1 General Education Elective as recommended by program
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture) (3)
    - BIOL1307 - Biology for Science Majors II (3)
    - BIOL1308 - Biology for Non-Science Majors I (3)
    - BIOL1309 - Biology for Non-Science Majors II (3)
    - BIOL2301 - Anatomy & Physiology I (lecture) (3)
    - BIOL2302 - Anatomy & Physiology II (lecture) (3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab) (4)
    - CHEM1305 - Introductory Chemistry I (lecture) (3)
    - CHEM1311 - General Chemistry I (lecture) (3)
    - CHEM1312 - General Chemistry II (lecture) (3)
    - MATH1314 - College Algebra (3 SCH version) (3)
    - MATH1316 - Plane Trigonometry (3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning) (3)
    - MATH1342 - Elementary Statistical Methods (3)
    - PHYS1315 - Physical Science I (lecture) (3)
    - PHYS1317 - Physical Science II (3)

Physics

Description

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 - Physics AS

<u>**Locations**</u>

Harlingen

<u>**Program Requirements**</u>

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGL1301 - Composition I (3)
    - MATH2312 - Pre-Calculus Math (3 SCH version) (3)
    - ACGM3CAR - Creative Arts Elective (3)
    - SPCHX3XX - Gen Ed Speech Elective (3)

Semester 2
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - ENGL1302 - Composition II (3)
    - CHEM1111 - General Chemistry I (lab) (1)
    - CHEM1311 - General Chemistry I (lecture) (3)
    - GOVT2305 - Federal Government (Federal constitution & topics) (3)
    - MATH2413 - Calculus I (4 SCH version) (4)

Semester 3
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - CHEM1112 - General Chemistry II (lab) (1)
    - CHEM1312 - General Chemistry II (lecture) (3)
    - GOVT2306 - Texas Government (Texas constitution & topics) (3)
    - MATH2414 - Calculus II (4 SCH version) (4)
    - ACGM3LPC - Language, Philosophy and Culture Elective (3)

Semester 4
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - HIST1301 - United States History I (3)
    - PHYS2125 - University Physics Laboratory I (lab) (1)
    - PHYS2325 - University Physics I (lecture) (3)
    - ACGM3CAOA - Component Area Option A (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 5
7 Total Credits
keyboard_arrow_up

- Complete the following:
    - HIST1302 - United States History II (3)
    - PHYS2126 - University Physics Laboratory II (lab) (1)
    - PHYS2326 - University Physics II (lecture) (3)

Degree Plan Credits **60**

<u>**Capstone**</u>

- Complete the following:
    - PHYS2126 - University Physics Laboratory II (lab) (1)
    - PHYS2326 - University Physics II (lecture) (3)

Pre/Corequisites

- MATH 2312 Prerequisite(s): MATH 1314 or MATH 1316
- ENGL 1302 Prerequisite(s): ENGL 1301
- CHEM 1111 Prerequisite(s): CHEM 1311 (Corequisite)
- CHEM 1311 Prerequisite(s): MATH 1314, CHEM 1111 (Corequisite)
- MATH 2413 Prerequisite(s): (MATH 1314 and MATH 1316) or MATH 2312 or MATH 2412
- CHEM 1112 Prerequisite(s): CHEM 1312 (Corequisite)
- CHEM 1312 Prerequisite(s): CHEM 1111, CHEM 1311, CHEM 1112 (Corequisite)
- MATH 2414 Prerequisite(s): MATH 2413
- PHYS 2125 Prerequisite(s): PHYS 2325 (Corequisite)
- PHYS 2325 Prerequisite(s): MATH 2413, PHYS 2125 (Corequisite)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Creative Arts Elective
  - ARTS1301 - Art Appreciation (3)
  - MUSI1306 - Music Appreciation (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
  - SPCH1311 - Introduction to Speech Communication (3)
  - SPCH1315 - Public Speaking (3)
  - SPCH1318 - Interpersonal Communication (3)
  - SPCH1321 - Business & Professional Communication (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Language, Philosophy & Culture Elective
  - ENGL2321 - British Literature (3)
  - ENGL2326 - American Literature (single-Semester Course) (3)
  - ENGL2331 - World Literature (3)
  - PHIL1304 - Introduction to World Religions (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Component Area Option A (for Academic Core Curriculum)
  - BIOL1106 - Biology for Science Majors Laboratory I (lab) (1)
  - BIOL1107 - Biology for Science Majors II Lab (1)
  - BIOL1108 - Biology Non-Science Majors Laboratory I (1)
  - BIOL1109 - Biology for Non-Science Majors II Lab (1)
  - BIOL2101 - Anatomy & Physiology I (lab) (1)
  - BIOL2102 - Anatomy & Physiology II (lab) (1)
  - CHEM1111 - General Chemistry I (lab) (1)
  - CHEM1112 - General Chemistry II (lab) (1)
  - ENGL2321 - British Literature (3)
  - ENGL2326 - American Literature (single-Semester Course) (3)
  - ENGL2331 - World Literature (3)
  - PHYS1101 - College Physics Laboratory I (1)
  - PHYS1102 - College Physics Lab II (1)
  - PHYS1115 - Physical Science Lab I (1)
  - PHYS1117 - Physical Science Lab II (1)
  - PSYC2314 - Lifespan Growth & Development (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics) (3)
  - GOVT2306 - Texas Government (Texas constitution & topics) (3)
  - ANTH2346 - General Anthropology (3)
  - ECON1301 - Introduction to Economics (3)
  - ECON2301 - Principles of Macroeconomics (3)
  - ECON2302 - Principles of Microeconomics (3)
  - GEOG1302 - Human Geography (3)
  - GEOG1303 - World Regional Geography (3)
  - PSYC1100 - Learning Framework (1)
  - PSYC2301 - General Psychology (3)
  - PSYC2314 - Lifespan Growth & Development (3)
  - HIST1301 - United States History I (3)
  - HIST1302 - United States History II (3)
  - HIST2312 - Western Civilization II (3)
  - HIST2321 - World Civilizations I (3)
  - SOCI1301 - Introduction to Sociology (3)
  - SOCI1306 - Social Problems (3)
  - SOCI2319 - Minority Studies I (3)

Plumbing & Pipefitting Technology

Description

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 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 program's certificate progresses from basic to advanced coursework in plumbing, piping, construction, fabrication, and more. At TSTC, your college credits can count toward the hours needed to obtain a state license.

Plumbing & Pipefitting Technology - Plumbing & Pipefitting Technology - Apprentice with Endorsements CER1

Locations

Waco

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - PFPB1306 - Basic Blueprint Reading for Plumbers (3)
    - PFPB1323 - Plumbing Codes I (3)
    - PFPB2308 - Piping Standards and Materials (3)
    - PFPB2309 - Residential Construction Plumbing I (3)
    - PFPB1321 - Plumbing Maintenance and Repair (3)

Degree Plan Credits **15**

Capstone

- Complete the following:
    - PFPB1323 - Plumbing Codes I (3)

Plumbing & Pipefitting Technology - Plumbing & Pipefitting Technology - Journeyman AAS

Locations

Abilene
Harlingen
Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - PFPB1306 - Basic Blueprint Reading for Plumbers (3)
    - PFPB1321 - Plumbing Maintenance and Repair (3)
    - PFPB2309 - Residential Construction Plumbing I (3)
    - PFPB2315 - Intermediate Technologies for Piping Trades (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - PFPB1347 - Backflow Prevention (3)
    - PFPB2343 - Advanced Pipe Practices (3)
    - PFPB2349 - Field Measuring, Sketching, and Layout (3)
    - OSHT1305 - OSHA Regulations - Construction Industry (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - PFPB1323 - Plumbing Codes I (3)
    - PFPB1682 - Cooperative Education - Plumbing Technology/Plumber (6)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - PFPB2336 - Commercial Construction and Fixture Setting (3)
        - PFPB2357 - Plumbing Codes II (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)
    - Complete the following:
        - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - PFPB1319 - Commercial Plumbing I (3)
    - PFPB2345 - Residential Construction Plumbing II (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - PFPB2357 - Plumbing Codes II (3)

Pre/Corequisites

- PFPB 1319 Prerequisite(s): PFPB 1323, PFPB 2349, PFPB 1306
- PFPB 2345 Prerequisite(s): PFPB 2309

Elective Options

- Complete at least 1 courses from the following:

keyboard_arrow_up
Social/Behavioral Science Elective
- GOVT2305 - Federal Government (Federal constitution & topics)(3)
- GOVT2306 - Texas Government (Texas constitution & topics)(3)
- ANTH2346 - General Anthropology(3)
- ECON1301 - Introduction to Economics(3)
- ECON2301 - Principles of Macroeconomics(3)
- ECON2302 - Principles of Microeconomics(3)
- GEOG1302 - Human Geography(3)
- GEOG1303 - World Regional Geography(3)
- PSYC1100 - Learning Framework(1)
- PSYC2301 - General Psychology(3)
- PSYC2314 - Lifespan Growth & Development(3)
- HIST1301 - United States History I(3)
- HIST1302 - United States History II(3)
- HIST2312 - Western Civilization II(3)
- HIST2321 - World Civilizations I(3)
- SOCI1301 - Introduction to Sociology(3)
- SOCI1306 - Social Problems(3)
- SOCI2319 - Minority Studies I(3)

- Complete at least 1 courses from the following:

  keyboard_arrow_up
  Math/Natural Science Elective
  - BIOL1306 - Biology for Science Majors I (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL1308 - Biology for Non-Science Majors I(3)
  - BIOL1309 - Biology for Non-Science Majors II(3)
  - BIOL2301 - Anatomy & Physiology I (lecture)(3)
  - BIOL2302 - Anatomy & Physiology II (lecture)(3)
  - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
  - CHEM1305 - Introductory Chemistry I (lecture)(3)
  - CHEM1311 - General Chemistry I (lecture)(3)
  - CHEM1312 - General Chemistry II (lecture)(3)
  - MATH1314 - College Algebra (3 SCH version)(3)
  - MATH1316 - Plane Trigonometry(3)
  - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
  - MATH1342 - Elementary Statistical Methods(3)
  - PHYS1315 - Physical Science I (lecture)(3)
  - PHYS1317 - Physical Science II(3)

- Complete at least 1 courses from the following:

  keyboard_arrow_up
  General Education Electives
  - ENGL1301 - Composition I(3)
  - ENGL1302 - Composition II(3)
  - ENGL2311 - Technical & Business Writing(3)
  - HIST2321 - World Civilizations I(3)
  - SPCH1315 - Public Speaking(3)
  - SPCH1318 - Interpersonal Communication(3)
  - SPCH1321 - Business & Professional Communication(3)
  - ARTS1301 - Art Appreciation(3)
  - ENGL2321 - British Literature(3)
  - ENGL2326 - American Literature (single-Semester Course)(3)
  - ENGL2341 - Forms of Literature(3)
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2323 - World Cultures(3)
  - MUSI1306 - Music Appreciation(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - PSYC2301 - General Psychology(3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - SOCI1301 - Introduction to Sociology(3)
  - BIOL1306 - Biology for Science Majors I (lecture)(3)

- BIOL1307 - Biology for Science Majors II(3)
- BIOL1308 - Biology for Non-Science Majors I(3)
- BIOL1309 - Biology for Non-Science Majors II(3)
- BIOL2301 - Anatomy & Physiology I (lecture)(3)
- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1412 - General Chemistry II(4)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)

Plumbing & Pipefitting Technology - Plumbing & Pipefitting Technology - Tradesman CER1

Locations

Abilene
Harlingen
Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - PFPB1306 - Basic Blueprint Reading for Plumbers (3)
    - PFPB1321 - Plumbing Maintenance and Repair (3)
    - PFPB2309 - Residential Construction Plumbing I (3)
    - PFPB2315 - Intermediate Technologies for Piping Trades (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - PFPB1347 - Backflow Prevention (3)
    - PFPB2343 - Advanced Pipe Practices (3)
    - PFPB2349 - Field Measuring, Sketching, and Layout (3)
    - OSHT1305 - OSHA Regulations - Construction Industry (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - PFPB1323 - Plumbing Codes I (3)
    - PFPB1682 - Cooperative Education - Plumbing Technology/Plumber (6)

Degree Plan Credits **33**

Capstone

- Complete the following:
    - PFPB1682 - Cooperative Education - Plumbing Technology/Plumber (6)

Pre Allied Health

<u>Description</u>

This program establishes a robust foundation for your journey toward advanced education and training in various allied health fields. Whether you need prerequisite coursework for a competitive program or are exploring the right health care career path, the Pre-Allied Health program is designed to support your goals.

Grading Scale:

A = 90-100

B = 80-89

C = 70-79

D = 60-69

F = Below 60

Transfer credit shall be processed by the Office of the Registrar 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. In the case of a transfer credit dispute or appeal, the Associate Vice Chancellor for Instructional Alignment & Innovation or a 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.

Note: Programs in health sciences often have specific policies for accepting academic courses, as detailed in their application documentation or program handbook. For instance, some biology courses may expire after five years, and certain programs might require a minimum grade of B for acceptance.

Pre Allied Health - Pre Allied Health

<u>**Locations**</u>

Online - TSTC Connect

<u>**Program Requirements**</u>

Semester 1
14 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - HPRS2302 - Medical Terminology for Allied Health (3)
    - Complete the following:
        - BIOL2301 - Anatomy & Physiology I (lecture) (3)
        - BIOL2101 - Anatomy & Physiology I (lab) (1)
    - Complete the following:
        - PSYC2314 - Lifespan Growth & Development (3)
    - Complete the following:
        - BIOL2302 - Anatomy & Physiology II (lecture) (3)
        - BIOL2102 - Anatomy & Physiology II (lab) (1)

Degree Plan Credits **14**

<u>**Capstone**</u>

- Complete the following:
    - BIOL2302 - Anatomy & Physiology II (lecture) (3)
    - BIOL2102 - Anatomy & Physiology II (lab) (1)

<u>**Elective Options**</u>

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
    - SPCH1311 - Introduction to Speech Communication (3)
    - SPCH1315 - Public Speaking (3)
    - SPCH1318 - Interpersonal Communication (3)
    - SPCH1321 - Business & Professional Communication (3)

Pre Allied Health - Pre-Allied Health CER2

<u>**Locations**</u>

Online - TSTC Connect

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete at least 4 credits from the following:
    - BIOL2401 - Anatomy & Physiology I (lecture + lab) (4)
    - BIOL2301 - Anatomy & Physiology I (lecture) (3)
    - BIOL2101 - Anatomy & Physiology I (lab) (1)
  - Complete the following:
    - ENGL1301 - Composition I (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 2
14 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete at least 4 credits from the following:
    - BIOL2402 - Anatomy & Physiology II (lecture + lab) (4)
    - BIOL2302 - Anatomy & Physiology II (lecture) (3)
    - BIOL2102 - Anatomy & Physiology II (lab) (1)
  - Complete at least 4 credits from the following:
    - BIOL2420 - Microbiology for Non-Science Majors (lecture + lab) (4)
    - BIOL2320 - Microbiology for Non-Science Majors (lecture) (3)
    - BIOL2120 - Microbiology for Non-Science Majors Laboratory (lab) (1)
  - Complete the following:
    - PSYC2301 - General Psychology (3)
    - ACGM3SPH - Gen Ed Speech Elective (3)

Semester 3
7 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete at least 4 credits from the following:
    - CHEM1405 - Introductory Chemistry I (4)
    - CHEM1305 - Introductory Chemistry I (lecture) (3)
    - CHEM1105 - Introductory Chemistry Laboratory I (lab) (1)
  - Complete the following:
    - HPRS2302 - Medical Terminology for Allied Health (3)

Degree Plan Credits **34**

Capstone

- Complete the following:
  - BIOL2302 - Anatomy & Physiology II (lecture) (3)
  - BIOL2102 - Anatomy & Physiology II (lab) (1)

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Speech Elective
    - SPCH1311 - Introduction to Speech Communication(3)
    - SPCH1315 - Public Speaking(3)
    - SPCH1318 - Interpersonal Communication(3)
    - SPCH1321 - Business & Professional Communication(3)

Precision Machining Technology

Description

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 control (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 students' creativity by providing them with the opportunity to design and build complex machinery.

Precision Machining Technology - Precision Machining Technology - CNC Machine Operator CER1

<u>Locations</u>

Waco
Williamson County
Harlingen
Fort Bend County
Marshall
North Texas

<u>Program Requirements</u>

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - MCHN1302 - Print Reading for Machining Trades (3)
    - MCHN1320 - Precision Tools and Measurement (3)
    - MCHN1438 - Basic Machine Shop I (4)
    - MCHN1343 - Machine Shop Mathematics (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - MCHN1326 - Introduction to Computer-Aided Manufacturing (CAM) (3)
    - MCHN1454 - Intermediate Machining II (4)
    - MCHN2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls (3)
    - MCHN2344 - Computerized Numerical Control Programming (3)

Degree Plan Credits **26**

<u>Capstone</u>

- Complete the following:
    - MCHN2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls (3)

<u>Pre/Corequisites</u>

- MCHN 1326 Prerequisite(s): MCHN 1302, Corequisite(s): MCHN 2303
- MCHN 1454 Prerequisite(s): MCHN 1438
- MCHN 2303 Corequisite(s): MCHN 1326
- MCHN 2344 Prerequisite(s): MCHN 1302

Precision Machining Technology - Precision Machining Technology AAS

<u>Locations</u>

Waco
Williamson County
Harlingen
Fort Bend County
Marshall
North Texas

Program Requirements

Semester 1
16 Total Credits
keyboard_arrow_up

- Complete the following:
    - MCHN1302 - Print Reading for Machining Trades (3)
    - MCHN1320 - Precision Tools and Measurement (3)
    - MCHN1438 - Basic Machine Shop I (4)
    - MATH1314 - College Algebra (3 SCH version) (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 2
16 Total Credits
keyboard_arrow_up

- Complete the following:
    - MCHN1326 - Introduction to Computer-Aided Manufacturing (CAM) (3)
    - MCHN1454 - Intermediate Machining II (4)
    - MCHN2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls (3)
    - MCHN2344 - Computerized Numerical Control Programming (3)
    - MATH1316 - Plane Trigonometry (3)

Semester 3
14 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - MCHN2435 - Advanced CNC Machining (4)
        - MCHN2441 - Advanced Machining I (4)
        - ENGL1301 - Composition I (3)
    - Complete at least 3 credits from the following:
        - MCHN2338 - Advanced Computer-Aided Manufacturing (CAM) (3)
        - PLTC1343 - Mold Design and Maintenence (3)

Semester 4
14 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ENTC2310 - Machine Design (3)
        - MCHN2445 - Advanced Machining II (4)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - Complete at least 4 credits from the following:
        - MCHN2447 - Specialized Tools and Fixtures (4)
        - MCHN1493 - Special Topics in Tool and Die Maker/Technologist (4)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - ENTC2310 - Machine Design (3)

Pre/Corequisites

- MCHN 1326 Prerequisite(s): MCHN 1302, Corequisite(s): MCHN 2303
- MCHN 1454 Prerequisite(s): MCHN 1438
- MCHN 2303 Corequisite(s): MCHN 1326
- MCHN 2344 Prerequisite(s): MCHN 1302
- MCHN 2435 Prerequisite(s): MCHN 2303
- MCHN 2441 Prerequisite(s): MCHN 1454
- MCHN 2338 Prerequisite(s): MCHN 1326
- PLTC 1343 Prerequisite(s): MCHN 1454
- ENTC 2310 Prerequisite(s): MCHN 1326, MHCN 2341 or MCHN 2441 Prerequisite or Corequisite
- MCHN 2445 Prerequisite(s): MCHN 2441
- MCHN 2447 Prerequisite(s): MCHN 1454 Prerequisite or Corequisite
- MCHN 1493 Prerequisite(s): PLTC 1343

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - ANTH2346 - General Anthropology(3)
  - ECON1301 - Introduction to Economics(3)
  - ECON2301 - Principles of Macroeconomics(3)
  - ECON2302 - Principles of Microeconomics(3)
  - GEOG1302 - Human Geography(3)
  - GEOG1303 - World Regional Geography(3)
  - PSYC1100 - Learning Framework(1)
  - PSYC2301 - General Psychology(3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - HIST2312 - Western Civilization II(3)
  - HIST2321 - World Civilizations I(3)
  - SOCI1301 - Introduction to Sociology(3)
  - SOCI1306 - Social Problems(3)
  - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2319 - American Minority Studies(3)
  - HUMA2323 - World Cultures(3)
  - PHIL1301 - Introduction to Philosophy(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2303 - Introduction to Formal Logic(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ARTS1301 - Art Appreciation(3)
  - ARTS2326 - Sculpture I(3)
  - ARTS2326 - Sculpture I(3)
  - MUSI1306 - Music Appreciation(3)

Precision Machining Technology - Precision Machining Technology CER2

Locations

Waco
Williamson County
Harlingen
Fort Bend County
Marshall
North Texas

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - MCHN1302 - Print Reading for Machining Trades (3)
    - MCHN1320 - Precision Tools and Measurement (3)
    - MCHN1438 - Basic Machine Shop I (4)
    - MCHN1343 - Machine Shop Mathematics (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - MCHN1326 - Introduction to Computer-Aided Manufacturing (CAM) (3)
    - MCHN1454 - Intermediate Machining II (4)
    - MCHN2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls (3)
    - MCHN2344 - Computerized Numerical Control Programming (3)

Semester 3
11 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - MCHN2435 - Advanced CNC Machining (4)
        - MCHN2441 - Advanced Machining I (4)
    - Complete at least 3 credits from the following:
        - MCHN2338 - Advanced Computer-Aided Manufacturing (CAM) (3)
        - PLTC1343 - Mold Design and Maintenence (3)

Semester 4
11 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ENTC2310 - Machine Design (3)
        - MCHN2445 - Advanced Machining II (4)
    - Complete at least 4 credits from the following:
        - MCHN2447 - Specialized Tools and Fixtures (4)
        - MCHN1493 - Special Topics in Tool and Die Maker/Technologist (4)

Degree Plan Credits **48**

Capstone

- Complete the following:
    - MCHN2441 - Advanced Machining I (4)

Pre/Corequisites

- MCHN 1326 Prerequisite(s): MCHN 1302, Corequisite(s): MCHN 2303
- MCHN 1454 Prerequisite(s): MCHN 1438
- MCHN 2303 Corequisite(s): MCHN 1326
- MCHN 2344 Prerequisite(s): MCHN 1302
- MCHN 2335 Prerequisite(s): MCHN 2303
- MCHN 2441 Prerequisite(s): MCHN 1454
- MCHN 2338 Prerequisite(s): MCHN 1326
- PLTC 1343, Prerequisite(s): MCHN 1454
- ENTC 2310 Prerequisite(s): MCHN 1326, MHCN 2341 or MCHN 2441 Prerequisite or Corequisite
- MCHN 2445 Prerequisite(s): MCHN 2441
- MCHN 2447 Prerequisite(s): MCHN 1454 (Pre or Co)
- MCHN 1493 Prerequisite(s): PLTC 1343

Process Operations

Description

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 and troubleshooting tools and 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 - Process Operations AAS

Locations

Marshall

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - PTAC1302 - Introduction to Process Technology (3)
        - PTAC1308 - Safety, Health, and Environment I (3)
        - PTRT1317 - Natural Gas Processing I (3)
    - Complete at least 3 credits from the following:
        - MATH1314 - College Algebra (3 SCH version) (3)
        - MATH1332 - Contemporary Mathematics (Quantitative Reasoning) (3)

Semester 2
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - PTRT2323 - Natural Gas Production (3)
    - PTAC1332 - Process Instrumentation I (3)
    - PTAC1410 - Process Technology I - Equipment (4)
    - SCIT1318 - Applied Physics (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - SCIT1414 - Applied General Chemistry I (4)
    - PTAC2420 - Process Technology II - Systems (4)
    - PTAC1454 - Industrial Processes (4)

Semester 4
14 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - PTAC2438 - Process Technology III - Operations (4)
        - PTAC2314 - Principles of Quality (3)
        - PTAC2446 - Process Troubleshooting (4)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 5
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
    - ACGM3GED - Gen Ed Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - PTAC2446 - Process Troubleshooting (4)
    - PTAC2438 - Process Technology III - Operations (4)

Pre/Corequisites

- PTAC 1332 Prerequisite(s): PTAC 1410 (Prerequisite or Corequisite)
- PTAC 1410 Prerequisite(s): PTAC 1332 (Prerequisite or Corequisite)
- PTAC 2420 Prerequisite(s): PTAC 1410

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development (3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)
- Complete 1 General Education Elective as recommended by program

Process Operations - Process Operations CER2

Locations

Marshall

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - PTAC1302 - Introduction to Process Technology (3)
  - PTAC1308 - Safety, Health, and Environment I (3)
  - PTRT1317 - Natural Gas Processing I (3)
  - TECM1303 - Technical Calculations (3)

Semester 2
10 Total Credits
keyboard_arrow_up

- Complete the following:
  - PTAC1332 - Process Instrumentation I (3)
  - PTAC1410 - Process Technology I - Equipment (4)
  - PTRT2323 - Natural Gas Production (3)

Semester 3
8 Total Credits
keyboard_arrow_up

- Complete the following:
  - PTAC2420 - Process Technology II - Systems (4)
  - PTAC1454 - Industrial Processes (4)

Semester 4
11 Total Credits
keyboard_arrow_up

- Complete the following:
  - PTAC2438 - Process Technology III - Operations (4)
  - PTAC2314 - Principles of Quality (3)
  - PTAC2446 - Process Troubleshooting (4)

Degree Plan Credits **41**

Capstone

- Complete the following:
  - PTAC2446 - Process Troubleshooting (4)
  - PTAC2438 - Process Technology III - Operations (4)

Pre/Corequisites

- PTAC 1332, PTAC 2420 Prerequisite(s): PTAC 1410 (Prerequisite or Corequisite)
- PTAC 1410 Prerequisite(s): PTAC 1332 (Prerequisite or Corequisite)

Robotics & Industrial Controls Technology

Description

TSTC's Robotics and Industrial Controls 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 environments. Focuses 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, computer integration and machine interfacing.

Robotics & Industrial Controls Technology - Robotics & Industrial Controls Technology AAS

Locations

Waco
Fort Bend County

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - DFTG1309 - Basic Computer-Aided Drafting (3)
    - RBTC1343 - Robotics (3)
    - MATH1314 - College Algebra (3 SCH version) (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - CETT1305 - AC Circuits (3)
        - ELPT1341 - Motor Control (3)
        - RBTC1347 - Electro-Mechanical Devices (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 3 credits from the following:
        - PHYS1310 - Elementary Physics (3)
        - PHYS1315 - Physical Science I (lecture) (3)
    - Complete the following:
        - RBTC1301 - Programmable Logic Controllers (3)
        - RBTC1355 - Sensors (3)
        - RBTC2339 - Robot Programming and Diagnostics (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - RBTC1341 - Vision Systems (3)
        - RBTC1345 - Robot Interfacing (3)
        - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
    - Complete at least 3 credits from the following:
        - RBTC1371 - Industrial Motors and Drives (3)
        - CETT1325 - Digital Fundamentals (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 3 credits from the following:
        - RBTC2375 - Human Machine Interface Programming and Interfacing (3)
        - RBTC2335 - Numerical Controlled/Computer Numerical Control Programming (3)
    - Complete the following:
        - RBTC2345 - Robot Application, Set-up, and Testing (3)
        - RBTC2347 - Computer Integrated Manufacturing (3)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Degree Plan Credits **60**

Pre/Corequisites

- CETT 1305 Prerequisite(s): CETT 1303 or IEIR 1302
- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371
- RBTC 1301 Prerequisite(s): ELPT 1341or INTC 1357
- RBTC 1355 Prerequisite(s): RBTC 1347
- RBTC 2339 Prerequisite(s): RBTC 1343
- RBTC 1341 Prerequisite(s): RBTC 2339
- RBTC 1345 Prerequisite(s): RBTC 2339, RBTC 1347, RBTC 1301
- RBTC 1371 Prerequisite(s): RBTC 1301, ELPT 1341
- CETT 1325 Prerequisite(s): CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305
- RBTC 2375, RBTC 2335, RBTC 2345, RBTC 2347 Prerequisite(s): RBTC 1345, RBTC 1301

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology (3)
    - ECON1301 - Introduction to Economics (3)
    - ECON2301 - Principles of Macroeconomics (3)
    - ECON2302 - Principles of Microeconomics (3)
    - GEOG1302 - Human Geography (3)
    - GEOG1303 - World Regional Geography (3)
    - PSYC1100 - Learning Framework (1)
    - PSYC2301 - General Psychology (3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology (3)
    - SOCI1306 - Social Problems (3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation (3)

Robotics & Industrial Controls Technology - Robotics & Industrial Controls Technology CER2

Locations

Waco
Fort Bend County

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - DFTG1309 - Basic Computer-Aided Drafting (3)
    - RBTC1343 - Robotics (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1305 - AC Circuits (3)
    - ELPT1341 - Motor Control (3)
    - RBTC1347 - Electro-Mechanical Devices (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - RBTC1301 - Programmable Logic Controllers (3)
    - RBTC1355 - Sensors (3)
    - RBTC2339 - Robot Programming and Diagnostics (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - RBTC1341 - Vision Systems (3)
    - RBTC1345 - Robot Interfacing (3)
    - RBTC1371 - Industrial Motors and Drives (3)

Degree Plan Credits **36**

Capstone

- Complete the following:
    - RBTC1345 - Robot Interfacing (3)

Pre/Corequisites

- RBTC 1343, CETT 1305 Prerequisite(s): CETT 1303 or IEIR 1302
- ELPT 1341 Prerequisite(s): AACT 1371 or ELPT 1311 or CETT 1303 or IEIR 1371
- RBTC 1301 Prerequisite(s): ELPT or INTC 1357
- RBTC 1355 Prerequisite(s): RBTC 2339, RBTC 1347
- RBTC 2339 Prerequisite(s): RBTC 1343
- RBTC 1341 Prerequisite(s): RBTC 2339
- RBTC 1345 Prerequisite(s): RBTC 2339, RBTC 1347, RBTC 1301
- RBTC 1371 Prerequisite(s): RBTC 1301, ELPT 1341

Solar Energy Technology

Description

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 array of TSTC's Electronics Center, along with designing and building multiple solar arrays consisting of various wattages and capabilities with some of the most up to date solar products on the market. 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 - Solar Energy Technology - Energy Efficiency Specialist CER1

Locations

Waco

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT2337 - Electrical Planning and Estimating (3)
    - RBPT1370 - Building Envelope Inspection (3)
    - SOLR1371 - Introduction to Solar and Alternative Energy Technologies (3)
    - SOLR2377 - Codes for Alternative Energy, Efficiency & Conservation (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - OSHT1305 - OSHA Regulations - Construction Industry (3)
    - RBPT2325 - Energy Rating Systems for Homes (3)
    - ELPT1325 - National Electrical Code I (3)
    - RBPT2359 - Residential Building Performance Consulting (3)

Degree Plan Credits **24**

Capstone

- Complete the following:
    - RBPT2359 - Residential Building Performance Consulting (3)

Solar Energy Technology - Solar Energy Technology AAS

Locations

Waco

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1311 - Basic Electrical Theory (3)
    - ELPT1315 - Electrical Calculations I (3)
    - SOLR1371 - Introduction to Solar and Alternative Energy Technologies (3)
    - SOLR1372 - Foundations of Solar Photovoltaic Power Generation (3)
    - SOLR2374 - Photovoltaic Systems & Components (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1325 - National Electrical Code I (3)
    - OSHT1305 - OSHA Regulations - Construction Industry (3)
    - SOLR2375 - Solar System Design, Installation, Troubleshooting & Repair (3)
    - SOLR2376 - Special Projects in Solar Energy Systems (3)
    - SOLR2377 - Codes for Alternative Energy, Efficiency & Conservation (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELPT1329 - Residential Wiring (3)
    - ELPT2315 - Electrical Calculations II (3)
    - ELPT2337 - Electrical Planning and Estimating (3)
    - ACGM3GED - Gen Ed Elective (3)
    - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ELPT1345 - Commercial Wiring (3)
        - ELPT1357 - Industrial Wiring (3)
        - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)
        - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - SOLR2375 - Solar System Design, Installation, Troubleshooting & Repair (3)
    - SOLR2376 - Special Projects in Solar Energy Systems (3)

Pre/Corequisites

- Complete all of the following
    - SOLR 2375, SOLR 2376, SOLR 2377 Prerequisite(s): SOLR 1371, SOLR 1372, SOLR 2374
    - ELPT 2315 Prerequisite(s): ELPT 1315
    - ELPT 2337 Prerequisite(s) or Corequisite(s): ELPT 1311
    - ELPT 1345, ELPT 1357 Prerequisite(s) or Corequisite(s): ELPT 1311, Prerequisite(s): ELPT 1329

Elective Options

- Complete at least courses from the following:
    keyboard_arrow_up
    General Education Electives

- ENGL1301 - Composition I(3)
- ENGL1302 - Composition II(3)
- ENGL2311 - Technical & Business Writing(3)
- HIST2321 - World Civilizations I(3)
- SPCH1315 - Public Speaking(3)
- SPCH1318 - Interpersonal Communication(3)
- SPCH1321 - Business & Professional Communication(3)
- ARTS1301 - Art Appreciation(3)
- ENGL2321 - British Literature(3)
- ENGL2326 - American Literature (single-Semester Course)(3)
- ENGL2341 - Forms of Literature(3)
- HUMA1301 - Introduction to Humanities I(3)
- HUMA2323 - World Cultures(3)
- MUSI1306 - Music Appreciation(3)
- PHIL1304 - Introduction to World Religions(3)
- PHIL2306 - Introduction to Ethics(3)
- ECON2301 - Principles of Macroeconomics(3)
- ECON2302 - Principles of Microeconomics(3)
- GOVT2305 - Federal Government (Federal constitution & topics)(3)
- GOVT2306 - Texas Government (Texas constitution & topics)(3)
- HIST1301 - United States History I(3)
- HIST1302 - United States History II(3)
- PSYC2301 - General Psychology(3)
- PSYC2314 - Lifespan Growth & Development(3)
- SOCI1301 - Introduction to Sociology(3)
- BIOL1306 - Biology for Science Majors I (lecture)(3)
- BIOL1307 - Biology for Science Majors II(3)
- BIOL1308 - Biology for Non-Science Majors I(3)
- BIOL1309 - Biology for Non-Science Majors II(3)
- BIOL2301 - Anatomy & Physiology I (lecture)(3)
- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1412 - General Chemistry II(4)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I(3)
  - HUMA2319 - American Minority Studies(3)
  - HUMA2323 - World Cultures(3)
  - PHIL1301 - Introduction to Philosophy(3)
  - PHIL1304 - Introduction to World Religions(3)
  - PHIL2303 - Introduction to Formal Logic(3)
  - PHIL2306 - Introduction to Ethics(3)
  - ARTS1301 - Art Appreciation(3)
  - ARTS2326 - Sculpture I(3)
  - ARTS2326 - Sculpture I(3)
  - MUSI1306 - Music Appreciation(3)

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Math/Natural Science Elective
  - BIOL1306 - Biology for Science Majors I (lecture)(3)
  - BIOL1307 - Biology for Science Majors II(3)
  - BIOL1308 - Biology for Non-Science Majors I(3)
  - BIOL1309 - Biology for Non-Science Majors II(3)
  - BIOL2301 - Anatomy & Physiology I (lecture)(3)
  - BIOL2302 - Anatomy & Physiology II (lecture)(3)
  - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
  - CHEM1305 - Introductory Chemistry I (lecture)(3)
  - CHEM1311 - General Chemistry I (lecture)(3)
  - CHEM1312 - General Chemistry II (lecture)(3)
  - MATH1314 - College Algebra (3 SCH version)(3)

- MATH1316 - Plane Trigonometry (3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning) (3)
- MATH1342 - Elementary Statistical Methods (3)
- PHYS1315 - Physical Science I (lecture) (3)
- PHYS1317 - Physical Science II (3)

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics) (3)
  - GOVT2306 - Texas Government (Texas constitution & topics) (3)
  - ANTH2346 - General Anthropology (3)
  - ECON1301 - Introduction to Economics (3)
  - ECON2301 - Principles of Macroeconomics (3)
  - ECON2302 - Principles of Microeconomics (3)
  - GEOG1302 - Human Geography (3)
  - GEOG1303 - World Regional Geography (3)
  - PSYC1100 - Learning Framework (1)
  - PSYC2301 - General Psychology (3)
  - PSYC2314 - Lifespan Growth & Development (3)
  - HIST1301 - United States History I (3)
  - HIST1302 - United States History II (3)
  - HIST2312 - Western Civilization II (3)
  - HIST2321 - World Civilizations I (3)
  - SOCI1301 - Introduction to Sociology (3)
  - SOCI1306 - Social Problems (3)
  - SOCI2319 - Minority Studies I (3)

Solar Energy Technology - Solar Energy Technology CER1

Locations

Waco

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - ELPT1311 - Basic Electrical Theory (3)
  - ELPT1315 - Electrical Calculations I (3)
  - SOLR1371 - Introduction to Solar and Alternative Energy Technologies (3)
  - SOLR1372 - Foundations of Solar Photovoltaic Power Generation (3)
  - SOLR2374 - Photovoltaic Systems & Components (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - ELPT1325 - National Electrical Code I (3)
  - OSHT1305 - OSHA Regulations - Construction Industry (3)
  - SOLR2375 - Solar System Design, Installation, Troubleshooting & Repair (3)
  - SOLR2376 - Special Projects in Solar Energy Systems (3)
  - SOLR2377 - Codes for Alternative Energy, Efficiency & Conservation (3)

Degree Plan Credits **30**

Capstone

- Complete the following:
  - SOLR2375 - Solar System Design, Installation, Troubleshooting & Repair (3)
  - SOLR2376 - Special Projects in Solar Energy Systems (3)

Pre/Corequisites

- SOLR 2375, SOLR 2376, SOLR 2377 Prerequisite(s): SOLR 1371, SOLR 1372, SOLR 2374

Surgical Technology

Description

The Surgical Technology program is designed to prepare entry-level Surgical Technologists who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession. The primary responsibilities include creating and maintaining a safe operating room environment through aseptic surgical techniques and assisting surgeons. The professional competencies developed through the program require manual dexterity to handle instruments efficiently while maintaining conscientiousness and emotional stability to handle the demanding environment of the operating room.

The program is structured through a hybrid format, combining online learning for didactic delivery with face-to-face lab training in skills and high-fidelity simulation. The curriculum emphasizes professionalism, teamwork and a commitment to continuous learning to develop competent and confident surgical technologists. Students gain hands-on experience during clinical instruction in hospital settings and must obtain medical insurance. TSTC covers accidentals, needlestick and malpractice insurance for the duration of the program.

The student grading policy used in assigning a semester grade is as follows:

A = 93-100%

B = 86-92%

C = 78-85%

D = 70-77%

F = 69% and below

A student must receive a "C" or better in all courses to be retained in and graduate from the program. To receive a passing grade of "C" or better in any Surgical Technology course, a student must maintain a 78 or higher grade average in didactic classes and have a satisfactory clinical evaluation based on the standards stated on the clinical evaluation form.

Transfer credit shall be processed by the Office of the Registrar 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. In the case of a transfer credit dispute or appeal, the Associate Vice Chancellor for Instructional Alignment & Innovation or a 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. **Note: Programs in Health Sciences may have particular acceptance of academic course policies as outlined in their program application documentation or program handbook references.

Surgical Technology - Surgical Technology - Sterile Processing OSA

Locations

Harlingen

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - SRGT1405 - Introduction to Surgical Technology (4)
  - SRGT1409 - Fundamentals of Perioperative Concepts and Techniques (4)
  - SRGT1491 - Special Topics in Surgical/Operating Room Technician (4)

Degree Plan Credits **12**

Surgical Technology - Surgical Technology AAS

Locations

Harlingen

Program Requirements

Semester 1
13 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - ENGL1301 - Composition I (3)
    - PSYC2301 - General Psychology (3)
    - HPRS2302 - Medical Terminology for Allied Health (3)
  - Complete at least 4 credits from the following:
    - BIOL2401 - Anatomy & Physiology I (lecture + lab) (4)
    - BIOL2301 - Anatomy & Physiology I (lecture) (3)
    - BIOL2101 - Anatomy & Physiology I (lab) (1)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - SRGT1405 - Introduction to Surgical Technology (4)
  - SRGT1409 - Fundamentals of Perioperative Concepts and Techniques (4)
  - SRGT1491 - Special Topics in Surgical/Operating Room Technician (4)

Semester 3
11 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - SRGT1541 - Surgical Procedures I (5)
    - SRGT1244 - Technological Sciences for the Surgical Technologist (2)
  - Complete at least 4 credits from the following:
    - BIOL2402 - Anatomy & Physiology II (lecture + lab) (4)
    - BIOL2302 - Anatomy & Physiology II (lecture) (3)
    - BIOL2102 - Anatomy & Physiology II (lab) (1)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - SRGT1461 - Clinical - Surgical Technology/Technologist (4)
  - SRGT1542 - Surgical Procedures II (5)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - SRGT2462 - Clinical - Surgical Technology/Technologist (4)
    - SRGT2130 - Professional Readiness (1)
  - Complete at least 3 credits from the following:
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning) (3)
    - MATH1314 - College Algebra (3 SCH version) (3)
  - Complete at least 4 credits from the following:
    - BIOL2420 - Microbiology for Non-Science Majors (lecture + lab) (4)
    - BIOL2320 - Microbiology for Non-Science Majors (lecture) (3)
    - BIOL2120 - Microbiology for Non-Science Majors Laboratory (lab) (1)

Degree Plan Credits **60**

Capstone

- Complete the following:
    - SRGT2462 - Clinical - Surgical Technology/Technologist (4)

Pre/Corequisites

- SRGT 1461 Prerequisite(s): SRGT 1491
- SRGT 1542 Prerequisite(s): SRGT 1541
- SRGT 2462 Prerequisite(s): SRGT 1461

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)

Vocational Nursing

Description

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 doctor's 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. It is necessary for student to pass each class before moving on to the next level. In order to progress in the program, a student must make an average of 79.5% or higher in each nursing course with the exception of Medical Terminology, A&P I and II, in which a grade of 70 or higher is acceptable.

Grading Scale

A = 90-100

B = 79.5 - 89

C = 70 - 79.4

D = 60 - 69

F = 0-59

NOTE: Students scoring less than a "B" or 79.5, as a final course average in the LVN Program will not progress to the next Level. There is no rounding in the Vocational Nursing Program. Please see the Vocational Nursing Handbook on guidelines for failing a course and re-admission into the program.

Graduates of the Vocational Nursing program have many employment opportunities to consider, including hospitals, nursing homes, home health care, medical 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 the application packet for details. The Vocational Nursing program application packet may be accessed at tstc.edu.

Transfer credit shall be processed by the Office of the Registrar 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. In the case of a transfer credit dispute or appeal, the Associate Vice Chancellor for Instructional Alignment & Innovation or a 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. **Note: Programs in Health Sciences may have particular acceptance of academic course policies as outlined in their program application documentation or program handbook references.

Vocational Nursing - Vocational Nursing CER2

Locations

Breckenridge
Harlingen
Sweetwater

Program Requirements

Semester 1
11 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete at least 4 credits from the following:
        - BIOL2401 - Anatomy & Physiology I (lecture + lab) (4)
        - BIOL2301 - Anatomy & Physiology I (lecture) (3)
        - BIOL2101 - Anatomy & Physiology I (lab) (1)
    - Complete at least 4 credits from the following:
        - BIOL2402 - Anatomy & Physiology II (lecture + lab) (4)
        - BIOL2302 - Anatomy & Physiology II (lecture) (3)
        - BIOL2102 - Anatomy & Physiology II (lab) (1)
    - Complete the following:
        - HPRS2302 - Medical Terminology for Allied Health (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - VNSG1261 - Clinical - Licensed Practical/Vocational Nurse Training (2)
    - VNSG1304 - Foundations of Nursing (3)
    - VNSG1331 - Pharmacology (3)
    - VNSG1327 - Essentials of Medication Administration (3)
    - VNSG1402 - Applied Nursing Skills I (4)

Semester 3
13 Total Credits
keyboard_arrow_up

- Complete the following:
    - VNSG1230 - Maternal-Neonatal Nursing (2)
    - VNSG1329 - Medical-Surgical Nursing I (3)
    - VNSG1462 - Clinical - Licensed Practical/Vocational Nurse Training (4)
    - VNSG2413 - Applied Nursing Skills II (4)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - VNSG1119 - Leadership and Professional Development (1)
    - VNSG1334 - Pediatrics (3)
    - VNSG1432 - Medical-Surgical Nursing II (4)
    - VNSG2463 - Clinical - Licensed Practical/Vocational Nurse Training (4)

Degree Plan Credits **51**

Capstone

- Complete the following:
    - VNSG2463 - Clinical - Licensed Practical/Vocational Nurse Training (4)

Web Design & Development

<u>**Description**</u>

Web designers and developers work within a variety of settings to gather information, program content and design a site that is effective and easy to use. The associate degree and certificate programs in Web Design and Development offer 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 such as HTML, JavaScript, PHP, CSS, Python 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 - Web Design & Development - Web Developer CER2

<u>**Locations**</u>

Online - TSTC Connect

<u>**Program Requirements**</u>

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - IMED1371 - Ui/Ux Design (3)
  - ITSE1311 - Beginning Web Programming (3)
  - IMED1316 - Web Design I (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITSE2313 - Web Authoring (3)
  - IMED2315 - Web Design II (3)
  - ITSE2302 - Intermediate Web Programming (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITSE1303 - Introduction to MySQL (3)
  - ITSE1306 - PHP Programming (3)
  - IMED2349 - Internet Server Management (3)

Semester 4
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - IMED2309 - Internet Commerce (3)
  - IMED2345 - Interactive Digital Media II (3)
  - ITSE1373 - Intro to Python (3)

Degree Plan Credits **36**

<u>**Capstone**</u>

- Complete the following:
  - IMED2345 - Interactive Digital Media II (3)

<u>**Pre/Corequisites**</u>

- IMED 1316 Prerequisite(s): ITSE 1311 (Prerequisite or Corequisite), IMED 1371 (Prerequisite or Corequisite)
- ITSE 2313, IMED 2315 Prerequisite(s): IMED 1316
- ITSE 2302 Prerequisite(s): ITSE 1311
- ITSE 1306 Prerequisite(s): ITSE 1303 (Prerequisite or Corequisite), ITSE 2302
- IMED 2309 Prerequisite(s): ITSE 1306
- IMED 2345 Prerequisite(s): ITSE 2302

Web Design & Development - Web Design & Development AAS

<u>**Locations**</u>

Online - TSTC Connect

Program Requirements

Semester 1
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - IMED1371 - Ui/Ux Design (3)
    - ITSE1311 - Beginning Web Programming (3)
    - IMED1316 - Web Design I (3)
  - Complete at least 3 credits from the following:
    - ENGL1301 - Composition I (3)
    - ENGL2311 - Technical & Business Writing (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITSE2313 - Web Authoring (3)
  - IMED2315 - Web Design II (3)
  - ITSE2302 - Intermediate Web Programming (3)
  - ACGM3MTH - Gen Ed Mathematics Elective (3)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITSE1303 - Introduction to MySQL (3)
  - ITSE1306 - PHP Programming (3)
  - IMED2349 - Internet Server Management (3)
  - ACGM3GED - Gen Ed Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - IMED2309 - Internet Commerce (3)
  - IMED2345 - Interactive Digital Media II (3)
  - ITSE1373 - Intro to Python (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 5
12 Total Credits
keyboard_arrow_up

- Complete all of the following
  - Complete the following:
    - IMED2311 - Portfolio Development (3)
    - ITSE2373 - Advanced Python (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)
  - Complete at least 3 credits from the following:
    - IMED2388 - Internship - Digital Communication and Media/Multimedia (3)
    - INEW2334 - Advanced Web Programming (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - IMED2388 - Internship - Digital Communication and Media/Multimedia (3)
  - IMED2311 - Portfolio Development (3)

Pre/Corequisites

- IMED 1316 Prerequisite(s): ITSE 1311 (Prerequisite or Corequisite), IMED 1371 (Prerequisite or Corequisite)
- ITSE 2313, IMED 2315 Prerequisite(s): IMED 1316
- ITSE 2302 Prerequisite(s): ITSE 1311
- ITSE 1306 Prerequisite(s): ITSE 1303 (Prerequisite or Corequisite), ITSE 2302
- IMED 2309 Prerequisite(s): ITSE 1306
- IMED 2345 Prerequisite(s): ITSE 2302
- IMED 2311, IMED 2388, INEW 2334 Prerequisite(s): ITSE 2313, IMED 2309, IMED 2315
- ITSE 2373 Prerequisite(s): ITSE 1373

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Mathematics Elective
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1325 - Calculus for Business & Social Sciences(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - MATH1350 - Math - Teachers I Fundamentals of Math I(3)
    - MATH1351 - Fundamentals of Mathematics II(3)
    - MATH2312 - Pre-Calculus Math (3 SCH version)(3)
    - MATH2313 - Calculus I(3)
    - MATH2318 - Linear Algebra(3)
    - MATH2320 - Differential Equations (3 SCH version)(3)
    - MATH2342 - Elementary Statistical Methods(3)
    - MATH2313 - Calculus I(3)
    - MATH2414 - Calculus II (4 SCH version)(4)
    - MATH2415 - Calculus III (4 SCH version)(4)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  General Education Electives
    - ENGL1301 - Composition I(3)
    - ENGL1302 - Composition II(3)
    - ENGL2311 - Technical & Business Writing(3)
    - HIST2321 - World Civilizations I(3)
    - SPCH1315 - Public Speaking(3)
    - SPCH1318 - Interpersonal Communication(3)
    - SPCH1321 - Business & Professional Communication(3)
    - ARTS1301 - Art Appreciation(3)
    - ENGL2321 - British Literature(3)
    - ENGL2326 - American Literature (single-Semester Course)(3)
    - ENGL2341 - Forms of Literature(3)
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2323 - World Cultures(3)
    - MUSI1306 - Music Appreciation(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - SOCI1301 - Introduction to Sociology(3)
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1412 - General Chemistry II(4)
    - MATH1314 - College Algebra (3 SCH version)(3)

- MATH1316 - Plane Trigonometry (3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning) (3)
- MATH1342 - Elementary Statistical Methods (3)
- PHYS1315 - Physical Science I (lecture) (3)
- PHYS1315 - Physical Science I (lecture) (3)

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics) (3)
  - GOVT2306 - Texas Government (Texas constitution & topics) (3)
  - ANTH2346 - General Anthropology (3)
  - ECON1301 - Introduction to Economics (3)
  - ECON2301 - Principles of Macroeconomics (3)
  - ECON2302 - Principles of Microeconomics (3)
  - GEOG1302 - Human Geography (3)
  - GEOG1303 - World Regional Geography (3)
  - PSYC1100 - Learning Framework (1)
  - PSYC2301 - General Psychology (3)
  - PSYC2314 - Lifespan Growth & Development (3)
  - HIST1301 - United States History I (3)
  - HIST1302 - United States History II (3)
  - HIST2312 - Western Civilization II (3)
  - HIST2321 - World Civilizations I (3)
  - SOCI1301 - Introduction to Sociology (3)
  - SOCI1306 - Social Problems (3)
  - SOCI2319 - Minority Studies I (3)

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
  - HUMA1301 - Introduction to Humanities I (3)
  - HUMA2319 - American Minority Studies (3)
  - HUMA2323 - World Cultures (3)
  - PHIL1301 - Introduction to Philosophy (3)
  - PHIL1304 - Introduction to World Religions (3)
  - PHIL2303 - Introduction to Formal Logic (3)
  - PHIL2306 - Introduction to Ethics (3)
  - ARTS1301 - Art Appreciation (3)
  - ARTS2326 - Sculpture I (3)
  - ARTS2326 - Sculpture I (3)
  - MUSI1306 - Music Appreciation (3)

Web Design & Development - Web Design & Development Technology - Front End Designer CER1

Locations

Online - TSTC Connect

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - IMED1371 - Ui/Ux Design (3)
  - ITSE1311 - Beginning Web Programming (3)
  - IMED1316 - Web Design I (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
  - ITSE2302 - Intermediate Web Programming (3)
  - ITSE2313 - Web Authoring (3)
  - IMED2315 - Web Design II (3)

Degree Plan Credits **18**

Capstone

- Complete the following:
  - ITSE2313 - Web Authoring (3)

Pre/Corequisites

- IMED 1316 Prerequisite(s): ITSE 1311 (Prerequisite or Corequisite), IMED 1371 (Prerequisite or Corequisite)
- ITSE 2302, IMED 2315, Prerequisite(s): ITSE 1311
- ITSE 2313 Prerequisite(s): IMED 1316

Web Design & Development - Web Design & Development Technology - PHP Developer CER1

Locations

Online - TSTC Connect

Program Requirements

Semester 1
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - IMED1371 - Ui/Ux Design (3)
    - ITSE1311 - Beginning Web Programming (3)
    - IMED1316 - Web Design I (3)

Semester 2
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITSE2313 - Web Authoring (3)
    - IMED2315 - Web Design II (3)
    - ITSE2302 - Intermediate Web Programming (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ITSE1303 - Introduction to MySQL (3)
    - ITSE1306 - PHP Programming (3)
    - IMED2349 - Internet Server Management (3)

Degree Plan Credits **27**

Capstone

- Complete the following:
    - ITSE1306 - PHP Programming (3)

Pre/Corequisites

- IMED 1316 Prerequisite(s): ITSE 1311 (Prerequisite or Corequisite), IMED 1371 (Prerequisite or Corequisite)
- ITSE 2313, IMED 2315 Prerequisite(s): IMED 1316
- ITSE 2302 Prerequisite(s): ITSE 1311
- ITSE 1306 Prerequisite(s): ITSE 1303 (Prerequisite or Corequisite), ITSE 2302

Welding Technology

Description

The Welding Technology program at TSTC emphasizes the development of hands-on welding and 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 and techniques are used. 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 the Associate of Applied Science degree in Welding Technology and certificates of completion in Structural Welding and Welding Advanced Pipe Specialization, there are many different options for those wanting to enter the welding industry.

Welding Technology - Welding Technology - Advanced Pipe CER2

Locations

Abilene
Breckenridge
Brownwood
Fort Bend County
Harlingen
Marshall
North Texas
Sweetwater
Waco
Williamson County

Program Requirements

Semester 1
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - TECM1303 - Technical Calculations (3)
    - WLDG1313 - Introduction to Blueprint Reading for Welders (3)
    - WLDG1407 - Introduction to Welding Using Multiple Processes (4)
    - WLDG1428 - Introduction to Shielded Metal Arc Welding (SMAW) (4)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - WLDG1417 - Introduction to Layout and Fabrication (4)
    - WLDG1434 - Introduction to Gas Tungsten Arc (GTAW) Welding (4)
    - WLDG1457 - Intermediate Shielded Metal Arc Welding (SMAW) (4)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - WLDG2413 - Intermediate Welding Using Multiple Processes (4)
    - WLDG2435 - Advanced Layout and Fabrication (4)
    - WLDG2443 - Advanced Shielded Metal Arc Welding (SMAW) (4)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - WLDG1435 - Introduction to Pipe Welding (4)
    - WLDG2406 - Intermediate Pipe Welding (4)
    - WLDG2453 - Advanced Pipe Welding (4)

Degree Plan Credits **50**

Capstone

- Complete the following:
    - WLDG2453 - Advanced Pipe Welding (4)

Pre/Corequisites

- WLDG 1417 Prerequisite(s): WLDG 1313 (Prerequisite or Corequisite)
- WLDG 1434, WLDG 2413 Prerequisite(s): WLDG 1407
- WLDG 1457 Prerequisite(s): WLDG 1428
- WLDG 2435 Prerequisite(s): WLDG 1417
- WLDG 2443 Prerequisite(s): WLDG 1457
- WLDG 1435, WLDG 2406, WLDG 2453 Prerequisite(s): WLDG 2435

Welding Technology - Welding Technology - Advanced Processes CER2

<u>**Locations**</u>

Waco
Williamson County
Harlingen
Fort Bend County
Abilene
Marshall
North Texas

<u>**Program Requirements**</u>

Semester 1
14 Total Credits
keyboard_arrow_up

- Complete the following:
    - TECM1303 - Technical Calculations (3)
    - WLDG1313 - Introduction to Blueprint Reading for Welders (3)
    - WLDG1407 - Introduction to Welding Using Multiple Processes (4)
    - WLDG1428 - Introduction to Shielded Metal Arc Welding (SMAW) (4)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - WLDG1417 - Introduction to Layout and Fabrication (4)
    - WLDG1434 - Introduction to Gas Tungsten Arc (GTAW) Welding (4)
    - WLDG1457 - Intermediate Shielded Metal Arc Welding (SMAW) (4)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - WLDG2413 - Intermediate Welding Using Multiple Processes (4)
    - WLDG2435 - Advanced Layout and Fabrication (4)
    - WLDG2443 - Advanced Shielded Metal Arc Welding (SMAW) (4)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - WLDG2447 - Advanced Gas Metal Arc Welding (gmaw) (4)
    - WLDG2451 - Advanced Gas Tungsten Arc Welding (gtaw) (4)
    - WLDG2452 - Advanced Flux Cored Arc Welding (4)

Degree Plan Credits **50**

<u>**Capstone**</u>

- Complete the following:
    - WLDG2451 - Advanced Gas Tungsten Arc Welding (gtaw) (4)

<u>**Pre/Corequisites**</u>

- WLDG 1417 Prerequisite(s): WLDG 1313 (Prerequisite or Corequisite)
- WLDG 1434, WLDG 2413 Prerequisite(s): WLDG 1407
- WLDG 1457 Prerequisite(s): WLDG 1428
- WLDG 2435 Prerequisite(s): WLDG 1417
- WLDG 2443 Prerequisite(s): WLDG 1457
- WLDG 2447, WLDG 2451, WLDG 2452 Prerequisite(s): WLDG 2413

Welding Technology - Welding Technology - Structural CER1

<u>**Locations**</u>

Waco
Williamson County
Harlingen
Fort Bend County
Sweetwater
Abilene
Brownwood
Breckenridge
Marshall
North Texas
New Braunfels

<u>**Program Requirements**</u>

Semester 1
14 Total Credits
keyboard_arrow_up

- Complete the following:
  - TECM1303 - Technical Calculations (3)
  - WLDG1313 - Introduction to Blueprint Reading for Welders (3)
  - WLDG1407 - Introduction to Welding Using Multiple Processes (4)
  - WLDG1428 - Introduction to Shielded Metal Arc Welding (SMAW) (4)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - WLDG1417 - Introduction to Layout and Fabrication (4)
  - WLDG1434 - Introduction to Gas Tungsten Arc (GTAW) Welding (4)
  - WLDG1457 - Intermediate Shielded Metal Arc Welding (SMAW) (4)

Semester 3
12 Total Credits
keyboard_arrow_up

- Complete the following:
  - WLDG2413 - Intermediate Welding Using Multiple Processes (4)
  - WLDG2435 - Advanced Layout and Fabrication (4)
  - WLDG2443 - Advanced Shielded Metal Arc Welding (SMAW) (4)

Degree Plan Credits **38**

<u>**Capstone**</u>

- Complete the following:
  - WLDG2413 - Intermediate Welding Using Multiple Processes (4)

<u>**Pre/Corequisites**</u>

- WLDG 1417 Prerequisite(s): WLDG 1313 (Prerequisite or Corequisite)
- WLDG 1434, WLDG 2413 Prerequisite(s): WLDG 1407
- WLDG 1457 Prerequisite(s): WLDG 1428
- WLDG 2435 Prerequisite(s): WLDG 1417
- WLDG 2443 Prerequisite(s): WLDG 1457

Welding Technology - Welding Technology AAS

Locations

Abilene
Williamson County
Fort Bend County
Harlingen
Waco

Program Requirements

Semester 1
14 Total Credits
keyboard_arrow_up

- Complete the following:
  - WLDG1313 - Introduction to Blueprint Reading for Welders (3)
  - WLDG1407 - Introduction to Welding Using Multiple Processes (4)
  - WLDG1428 - Introduction to Shielded Metal Arc Welding (SMAW) (4)
  - ACGM3MNS - Gen Ed Math/Natural Science Elective (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - WLDG1417 - Introduction to Layout and Fabrication (4)
  - WLDG1434 - Introduction to Gas Tungsten Arc (GTAW) Welding (4)
  - WLDG1457 - Intermediate Shielded Metal Arc Welding (SMAW) (4)
  - ENGL1301 - Composition I (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete the following:
  - WLDG2413 - Intermediate Welding Using Multiple Processes (4)
  - WLDG2435 - Advanced Layout and Fabrication (4)
  - WLDG2443 - Advanced Shielded Metal Arc Welding (SMAW) (4)
  - ACGM3GED - Gen Ed Elective (3)

Semester 4
16 Total Credits
keyboard_arrow_up

- Complete the following:
  - WLDG1327 - Welding Codes and Standards (3)
  - NDTE1310 - Liquid Penetrant/Magnetic Particle Testing (3)
  - WLDG2432 - Welding Automation (4)
  - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)
  - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Degree Plan Credits **60**

Capstone

- Complete the following:
  - WLDG1327 - Welding Codes and Standards (3)

Pre/Corequisites

- WLDG 1417 Prerequisite(s): WLDG 1313 (Prerequisite or Corequisite)
- WLDG 1434, WLDG 2413 Prerequisite(s): WLDG 1407
- WLDG 1457 Prerequisite(s): WLDG 1428
- WLDG 2435 Prerequisite(s): WLDG 1417
- WLDG 2443 Prerequisite(s): WLDG 1457
- WLDG 1327, NDTE 1310, WLDG 2432 Prerequisite(s): WLDG 2413

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up

Math/Natural Science Elective
- BIOL1306 - Biology for Science Majors I (lecture)(3)
- BIOL1307 - Biology for Science Majors II(3)
- BIOL1308 - Biology for Non-Science Majors I(3)
- BIOL1309 - Biology for Non-Science Majors II(3)
- BIOL2301 - Anatomy & Physiology I (lecture)(3)
- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1312 - General Chemistry II (lecture)(3)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1317 - Physical Science II(3)

- Complete at least 1 courses from the following:
keyboard_arrow_up
General Education Electives
- ENGL1301 - Composition I(3)
- ENGL1302 - Composition II(3)
- ENGL2311 - Technical & Business Writing(3)
- HIST2321 - World Civilizations I(3)
- SPCH1315 - Public Speaking(3)
- SPCH1318 - Interpersonal Communication(3)
- SPCH1321 - Business & Professional Communication(3)
- ARTS1301 - Art Appreciation(3)
- ENGL2321 - British Literature(3)
- ENGL2326 - American Literature (single-Semester Course)(3)
- ENGL2341 - Forms of Literature(3)
- HUMA1301 - Introduction to Humanities I(3)
- HUMA2323 - World Cultures(3)
- MUSI1306 - Music Appreciation(3)
- PHIL1304 - Introduction to World Religions(3)
- PHIL2306 - Introduction to Ethics(3)
- ECON2301 - Principles of Macroeconomics(3)
- ECON2302 - Principles of Microeconomics(3)
- GOVT2305 - Federal Government (Federal constitution & topics)(3)
- GOVT2306 - Texas Government (Texas constitution & topics)(3)
- HIST1301 - United States History I(3)
- HIST1302 - United States History II(3)
- PSYC2301 - General Psychology(3)
- PSYC2314 - Lifespan Growth & Development(3)
- SOCI1301 - Introduction to Sociology(3)
- BIOL1306 - Biology for Science Majors I (lecture)(3)
- BIOL1307 - Biology for Science Majors II(3)
- BIOL1308 - Biology for Non-Science Majors I(3)
- BIOL1309 - Biology for Non-Science Majors II(3)
- BIOL2301 - Anatomy & Physiology I (lecture)(3)
- BIOL2302 - Anatomy & Physiology II (lecture)(3)
- CHEM1305 - Introductory Chemistry I (lecture)(3)
- CHEM1311 - General Chemistry I (lecture)(3)
- CHEM1412 - General Chemistry II(4)
- MATH1314 - College Algebra (3 SCH version)(3)
- MATH1316 - Plane Trigonometry(3)
- MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
- MATH1342 - Elementary Statistical Methods(3)
- PHYS1315 - Physical Science I (lecture)(3)
- PHYS1315 - Physical Science I (lecture)(3)

- Complete at least 1 courses from the following:
keyboard_arrow_up
Humanities/Fine Arts Elective
- HUMA1301 - Introduction to Humanities I(3)
- HUMA2319 - American Minority Studies(3)
- HUMA2323 - World Cultures(3)
- PHIL1301 - Introduction to Philosophy(3)
- PHIL1304 - Introduction to World Religions(3)

- PHIL2303 - Introduction to Formal Logic (3)
- PHIL2306 - Introduction to Ethics (3)
- ARTS1301 - Art Appreciation (3)
- ARTS2326 - Sculpture I (3)
- ARTS2326 - Sculpture I (3)
- MUSI1306 - Music Appreciation (3)

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
  - GOVT2305 - Federal Government (Federal constitution & topics)(3)
  - GOVT2306 - Texas Government (Texas constitution & topics)(3)
  - ANTH2346 - General Anthropology (3)
  - ECON1301 - Introduction to Economics (3)
  - ECON2301 - Principles of Macroeconomics (3)
  - ECON2302 - Principles of Microeconomics (3)
  - GEOG1302 - Human Geography (3)
  - GEOG1303 - World Regional Geography (3)
  - PSYC1100 - Learning Framework (1)
  - PSYC2301 - General Psychology (3)
  - PSYC2314 - Lifespan Growth & Development(3)
  - HIST1301 - United States History I(3)
  - HIST1302 - United States History II(3)
  - HIST2312 - Western Civilization II(3)
  - HIST2321 - World Civilizations I(3)
  - SOCI1301 - Introduction to Sociology (3)
  - SOCI1306 - Social Problems (3)
  - SOCI2319 - Minority Studies I(3)

Wind Energy Technology

Description

As a wind energy technician, the sky is only the beginning. You can work at turbine construction and manufacturing sites, in the distribution and generation industries, at utility companies, or on wind farms across the country. At TSTC you will learn to conduct efficiency studies and troubleshoot materials and machines in factories, as well as offices and production sites. You will 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 will be qualified to operate and maintain the systems that make a wind turbine function.

Wind Energy Technology - Wind Energy Technology AAS

Locations

Harlingen
Sweetwater

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - WIND1300 - Introduction to Wind Energy (3)
    - WIND1302 - Wind Safety (3)
    - MATH1314 - College Algebra (3 SCH version) (3)
    - ELMT1305 - Basic Fluid Power (3)

Semester 2
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1305 - AC Circuits (3)
    - CETT1325 - Digital Fundamentals (3)
    - WIND2310 - Wind Turbine Materials and Electro-Mechanical Equipment (3)
    - ENER2325 - SCADA and Networking (3)
    - ACGM3SBS - Gen Ed Social/Behavioral Science Elective (3)

Semester 3
15 Total Credits
keyboard_arrow_up

- Complete all of the following
    - Complete the following:
        - ELMT1301 - Programmable Logic Controllers (3)
        - INMT1317 - Industrial Automation (3)
    - Complete at least 3 credits from the following:
        - ENGL1301 - Composition I (3)
        - ENGL2311 - Technical & Business Writing (3)
    - Complete the following:
        - WIND2359 - Wind Power Delivery System (3)
        - ACGM3HFA - Gen Ed Humanities/Fine Arts Elective (3)

Semester 4
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELMT2341 - Electromechanical Systems (3)
    - WIND1371 - Safety At Height Training (3)
    - WIND2355 - Wind Turbine Troubleshooting and Repair (3)
    - ACGM3GED - Gen Ed Elective (3)

Semester 5
3 Total Credits
keyboard_arrow_up

- Complete at least 3 credits from the following:
    - ELMT2380 - Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology (3)
    - WIND1391 - Special Topics in Wind Energy (3)

Degree Plan Credits **60**

Capstone

- Complete all of the following
    - Complete the following:
        - ELMT2380 - Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology (3)
    - Complete the following:
        - WIND1391 - Special Topics in Wind Energy (3)

Pre/Corequisites

- CETT 1305 Prerequisite(s): CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
- CETT 1325, WIND 1371 Prerequisite(s): CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
- WIND 2310 Prerequisite(s): WIND 1300, WIND 1302, CETT 1303
- ENER 2325, INMT 1317 Prerequisite(s): CETT 1303, CETT 1305 (Corequisite)
- ELMT 1301 Prerequisite(s): CETT 1325
- WIND 2359 Prerequisite(s): CETT 1305
- WIND 2355 Prerequisite(s): CETT 1305, INMT 1317

Elective Options

- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I(3)
    - HUMA2319 - American Minority Studies(3)
    - HUMA2323 - World Cultures(3)
    - PHIL1301 - Introduction to Philosophy(3)
    - PHIL1304 - Introduction to World Religions(3)
    - PHIL2303 - Introduction to Formal Logic(3)
    - PHIL2306 - Introduction to Ethics(3)
    - ARTS1301 - Art Appreciation(3)
    - ARTS2326 - Sculpture I(3)
    - ARTS2326 - Sculpture I(3)
    - MUSI1306 - Music Appreciation(3)
- Complete at least 1 courses from the following:
  keyboard_arrow_up
  Biology 4 Credit Approved Elective

Wind Energy Technology - Wind Energy Technology CER1

Locations

Harlingen
Sweetwater

Program Requirements

Semester 1
15 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - TECM1303 - Technical Calculations (3)
    - WIND1300 - Introduction to Wind Energy (3)
    - WIND1302 - Wind Safety (3)
    - ELMT1305 - Basic Fluid Power (3)

Semester 2
12 Total Credits
keyboard_arrow_up

- Complete the following:
    - CETT1305 - AC Circuits (3)
    - CETT1325 - Digital Fundamentals (3)
    - WIND2310 - Wind Turbine Materials and Electro-Mechanical Equipment (3)
    - ENER2325 - SCADA and Networking (3)

Semester 3
9 Total Credits
keyboard_arrow_up

- Complete the following:
    - ELMT1301 - Programmable Logic Controllers (3)
    - INMT1317 - Industrial Automation (3)
    - WIND2359 - Wind Power Delivery System (3)

Degree Plan Credits **36**

Capstone

- Complete the following:
    - WIND2359 - Wind Power Delivery System (3)

Pre/Corequisites

- CETT 1305 Prerequisite(s): CETT 1303 or IEIR 1302 (Prerequisite or Corequisite)
- CETT 1325 Prerequisite(s): CETT 1302, CETT 1303, IEIR 1302, IEIR 1304, IEIR 1371 or CETT 1305 (Prerequisite or Corequisite)
- WIND 2310 Prerequisite(s): WIND 1300, WIND 1302, CETT 1303
- ENER 2325, INMT 1317 Prerequisite(s): CETT 1303, CETT 1305 (Corequisite)
- ELMT 1301 Prerequisite(s): CETT 1325
- WIND 2359 Prerequisite(s): CETT 1305

Courses

Academic Course

ACGM3BIO - BIO AS - Approved Elective List 2
Course Title

BIO AS - Approved Elective List 2

Academic Level

Undergraduate

Description

ACGM Biology AS - Elective 3 credits

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3CAOA - Component Area Option A
Course Title

Component Area Option A

Academic Level

Undergraduate

Description

Component Area Option A * 3 credits

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Component Area Option A (for Computer Science AS)
    - ENGL2321 - British Literature (3)
    - ENGL2326 - American Literature (single-Semester Course) (3)
    - ENGL2331 - World Literature (3)
    - PSYC2314 - Lifespan Growth & Development (3)
- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Component Area Option A (for Academic Core Curriculum)
    - BIOL1106 - Biology for Science Majors Laboratory I (lab) (1)
    - BIOL1107 - Biology for Science Majors II Lab (1)
    - BIOL1108 - Biology Non-Science Majors Laboratory I (1)
    - BIOL1109 - Biology for Non-Science Majors II Lab (1)
    - BIOL2101 - Anatomy & Physiology I (lab) (1)
    - BIOL2102 - Anatomy & Physiology II (lab) (1)
    - CHEM1111 - General Chemistry I (lab) (1)
    - CHEM1112 - General Chemistry II (lab) (1)
    - ENGL2321 - British Literature (3)
    - ENGL2326 - American Literature (single-Semester Course) (3)
    - ENGL2331 - World Literature (3)
    - PHYS1101 - College Physics Laboratory I (1)
    - PHYS1102 - College Physics Lab II (1)
    - PHYS1115 - Physical Science Lab I (1)
    - PHYS1117 - Physical Science Lab II (1)
    - PSYC2314 - Lifespan Growth & Development (3)

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3CAOB - Component Area Option

Course Title

Component Area Option

Academic Level

Undergraduate

Description

Component Area Option A * 3 credits

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Component Area Option B (for Academic Core Curriculum)
    - SPCH1311 - Introduction to Speech Communication (3)
    - SPCH1315 - Public Speaking (3)
    - SPCH1318 - Interpersonal Communication (3)
    - SPCH1321 - Business & Professional Communication (3)

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3CAR - Creative Arts Elective

Course Title

Creative Arts Elective

Academic Level

Undergraduate

Description

Creative Arts Elective 3 credits

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Creative Arts Elective
    - ARTS1301 - Art Appreciation (3)
    - MUSI1306 - Music Appreciation (3)

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3GED - Gen Ed Elective

Course Title

Gen Ed Elective

Academic Level

Undergraduate

Description

Gen Ed Elective

Lecture Hours

3

Lab Hours

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3HFA - Gen Ed Humanities/Fine Arts Elective
Course Title

Gen Ed Humanities/Fine Arts Elective

Academic Level

Undergraduate

Description

Gen Ed Humanities/Fine Arts Elective

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Humanities/Fine Arts Elective
    - HUMA1301 - Introduction to Humanities I (3)
    - HUMA2319 - American Minority Studies (3)
    - HUMA2323 - World Cultures (3)
    - PHIL1301 - Introduction to Philosophy (3)
    - PHIL1304 - Introduction to World Religions (3)
    - PHIL2303 - Introduction to Formal Logic (3)
    - PHIL2306 - Introduction to Ethics (3)
    - ARTS1301 - Art Appreciation (3)
    - ARTS2326 - Sculpture I (3)
    - ARTS2326 - Sculpture I (3)
    - MUSI1306 - Music Appreciation (3)

Lecture Hours

3

Lab Hours

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3LPC - Language, Philosophy and Culture Elective
Course Title

Language, Philosophy and Culture Elective

Academic Level

Undergraduate

Description

Language, Philosophy and Culture Elective

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Language, Philosophy & Culture Elective
    - ENGL2321 - British Literature (3)
    - ENGL2326 - American Literature (single-Semester Course) (3)
    - ENGL2331 - World Literature (3)
    - PHIL1304 - Introduction to World Religions (3)

Lecture Hours

3

Lab Hours

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3LPS - Life and Physical Science Elective
Course Title

Life and Physical Science Elective

Academic Level

Undergraduate

Description

Life and Physical Science Elective

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Life & Physical Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - PHYS1301 - College Physics I (lecture)(3)
    - PHYS1302 - College Physics II (lecture)(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)

Lecture Hours

3

Lab Hours

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3MNS - Gen Ed Math/Natural Science Elective
Course Title

Gen Ed Math/Natural Science Elective

Academic Level

Undergraduate

Description

Gen Ed Math/Natural Science Elective

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)

Lecture Hours

3

Lab Hours

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3MTH - Gen Ed Mathematics Elective
Course Title

Gen Ed Mathematics Elective

Academic Level

Undergraduate

Description

Gen Ed Mathematics Elective

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Mathematics Elective
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1325 - Calculus for Business & Social Sciences(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - MATH1350 - Math - Teachers I Fundamentals of Math I(3)
    - MATH1351 - Fundamentals of Mathematics II(3)
    - MATH2312 - Pre-Calculus Math (3 SCH version)(3)
    - MATH2313 - Calculus I(3)
    - MATH2318 - Linear Algebra(3)
    - MATH2320 - Differential Equations (3 SCH version)(3)
    - MATH2342 - Elementary Statistical Methods(3)
    - MATH2313 - Calculus I(3)
    - MATH2414 - Calculus II (4 SCH version)(4)
    - MATH2415 - Calculus III (4 SCH version)(4)
- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Mathematics Elective (for Academic Core)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH2312 - Pre-Calculus Math (3 SCH version)(3)

Lecture Hours

3

Lab Hours

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3NSC - Gen Ed Natural Science Elective
Course Title

Gen Ed Natural Science Elective

Academic Level

Undergraduate

Description

Gen Ed Natural Science Elective

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Math/Natural Science Elective
    - BIOL1306 - Biology for Science Majors I (lecture)(3)
    - BIOL1307 - Biology for Science Majors II(3)
    - BIOL1308 - Biology for Non-Science Majors I(3)
    - BIOL1309 - Biology for Non-Science Majors II(3)
    - BIOL2301 - Anatomy & Physiology I (lecture)(3)
    - BIOL2302 - Anatomy & Physiology II (lecture)(3)
    - BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)(4)
    - CHEM1305 - Introductory Chemistry I (lecture)(3)
    - CHEM1311 - General Chemistry I (lecture)(3)
    - CHEM1312 - General Chemistry II (lecture)(3)
    - MATH1314 - College Algebra (3 SCH version)(3)
    - MATH1316 - Plane Trigonometry(3)
    - MATH1332 - Contemporary Mathematics (Quantitative Reasoning)(3)
    - MATH1342 - Elementary Statistical Methods(3)
    - PHYS1315 - Physical Science I (lecture)(3)
    - PHYS1317 - Physical Science II(3)

Lecture Hours

3

Lab Hours

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3SBS - Gen Ed Social/Behavioral Science Elective
Course Title

Gen Ed Social/Behavioral Science Elective

Academic Level

Undergraduate

Description

Gen Ed Social/Behavioral Science Elective

Course Options

- *keyboard_arrow_up*
  Social/Behavioral Science Elective
    - GOVT2305 - Federal Government (Federal constitution & topics)(3)
    - GOVT2306 - Texas Government (Texas constitution & topics)(3)
    - ANTH2346 - General Anthropology(3)
    - ECON1301 - Introduction to Economics(3)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - GEOG1302 - Human Geography(3)
    - GEOG1303 - World Regional Geography(3)
    - PSYC1100 - Learning Framework(1)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - HIST1301 - United States History I(3)
    - HIST1302 - United States History II(3)
    - HIST2312 - Western Civilization II(3)
    - HIST2321 - World Civilizations I(3)
    - SOCI1301 - Introduction to Sociology(3)
    - SOCI1306 - Social Problems(3)
    - SOCI2319 - Minority Studies I(3)
  keyboard_arrow_up
  Social/Behavioral Science Elective (for Academic Core Majors)
    - ECON2301 - Principles of Macroeconomics(3)
    - ECON2302 - Principles of Microeconomics(3)
    - PSYC2301 - General Psychology(3)
    - PSYC2314 - Lifespan Growth & Development(3)
    - SOCI1301 - Introduction to Sociology(3)

Lecture Hours

3

Lab Hours

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ACGM3SPH - Gen Ed Speech Elective
Course Title

Gen Ed Speech Elective

Academic Level

Undergraduate

Description

Gen Ed Speech Elective

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Speech Elective
    - SPCH1311 - Introduction to Speech Communication (3)
    - SPCH1315 - Public Speaking (3)
    - SPCH1318 - Interpersonal Communication (3)
    - SPCH1321 - Business & Professional Communication (3)

Lecture Hours

3

Lab Hours

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Accounting

ACCT2301 - Principles of Financial Accounting

Course Title

Principles of Financial Accounting

Academic Level

Undergraduate

Description

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).

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Accounting Technology

ACNT1001 - Beginning Bookkeeping
Course Title

Beginning Bookkeeping

Academic Level

Continuing Education

Description

Focus on analyzing, classifying, and recording business transactions. Emphasizes understanding of complete accounting cycle and preparing financial statements, bank reconciliations, and payroll.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Semester Credit Hours

0

ACNT1004 - Accounting Fundamentals II
Course Title

Accounting Fundamentals II

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

2

Total Contact Hours

24

Semester Credit Hours

0

ACNT1025 - Principles of Accounting I
Course Title

Principles of Accounting I

Academic Level

Continuing Education

Description

A study of accounting concepts and their application in transaction analysis and financial statement preparation and asset and equity accounting in proprietorships and corporations. Emphasis on accounting cycle for service and merchandising enterprises.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

6

Total Contact Hours

96

Semester Credit Hours

0

ACNT1041 - Accounting II
Course Title

Accounting II

Academic Level

Continuing Education

Description

Introduction to cost behavior, budgeting, responsibility accounting, cost control, product costing, break even analysis, incremental analysis, and decision-making and planning.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Semester Credit Hours

0

ACNT1303 - Introduction to Accounting I
Course Title

Introduction to Accounting I

Academic Level

Undergraduate

Description

A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ACNT1311 - Introduction to Computerized Accounting
Course Title

Introduction to Computerized Accounting

Academic Level

Undergraduate

Description

Introduction to utilizing the computer in maintaining accounting records with primary emphasis on a general ledger package.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ACNT1325 - Principles of Accounting I
Course Title

Principles of Accounting I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ACNT1326 - Principles of Accounting II
Course Title

Principles of Accounting II

Academic Level

Undergraduate

Description

A study of the fundamentals of managerial accounting. Emphasis on budgeting, planning, management decision making, and analysis of financial reports.

Lecture Hours

2

Lab Hours

4

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ACNT1325 - Principles of Accounting I (3)

ACNT1329 - Payroll & Business Tax Accounting
Course Title

Payroll & Business Tax Accounting

Academic Level

Undergraduate

Description

A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

ACNT1340 - Accounting and Business Ethics
Course Title

Accounting and Business Ethics

Academic Level

Undergraduate

Description

Ethical standards and behaviors, codes of professional conduct, and the impact of unethical behavior on an individual, business, and society.

Lecture Hours

2

Lab Hours

2

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

ACNT2302 - Accounting Capstone

Course Title

Accounting Capstone

Academic Level

Undergraduate

Description

Allows students to apply broad knowledge of the accounting profession through discipline specific projects involving the integration of individuals and teams performing activities to simulate workplace situations.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Agriculture-Mechanization

AGME1353 - Harvesting Equipment
Course Title

Harvesting Equipment

Academic Level

Undergraduate

Description

Operation and maintenance including adjustment techniques of harvesting equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Air Conditioning

MAIR1000 - Troubleshooting
Course Title

Troubleshooting

Academic Level

Continuing Education

Description

Introduction to the skills required to troubleshoot, repair, or renovate domestic equipment.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

MAIR1349 - Refrigeration, Freezers, Window Air Cond
Course Title

Refrigeration, Freezers, Window Air Cond

Academic Level

Undergraduate

Description

Theory, sequence of operation, components and repair, electrical schematics, and troubleshooting electronic components in air conditioning and refrigeration. Emphasis on safety for the electrical, mechanical, and sealed systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Animation, Video Graphics

GAME1029 - Flash 8 Characters and Storyboarding
Course Title

Flash 8 Characters and Storyboarding

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

Anthropology

ANTH2346 - General Anthropology
Course Title

General Anthropology

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Applied/Technical Mathematics

TECM1049 - Technical Math
Course Title

Technical Math

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

TECM1091 - St in Applied Mathematics, Gen
Course Title

St in Applied Mathematics, Gen

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

TECM1091 - Sp Top Applied Math, Gen.
Course Title

Sp Top Applied Math, Gen.

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

7

Semester Credit Hours

0

TECM1303 - Technical Calculations
Course Title

Technical Calculations

Academic Level

Undergraduate

Description

Specific mathematical calculations required by business, industry, and health occupations.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

TECM1349 - Technical Math Applications
Course Title

Technical Math Applications

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Architecture

ARCE1303 - Architectural Materials and Methods of Construction
Course Title

Architectural Materials and Methods of Construction

Academic Level

Undergraduate

Description

Properties, specifications, vendor references, and uses of materials as related to architectural systems of structures.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:

ARCE1321 - Architectural Illustration

Course Title

Architectural Illustration

Academic Level

Undergraduate

Description

Architectural drawing and sketching. Emphasizes architectural structures in 3-D or pictorially either by hand or computer software.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - DFTG1309 - Basic Computer-Aided Drafting (3)

Corequisites

- Completed or concurrently enrolled in:
  - DFTG1309 - Basic Computer-Aided Drafting (3)

ARCE1342 - Codes, Specifications, and Contract Documents

Course Title

Codes, Specifications, and Contract Documents

Academic Level

Undergraduate

Description

Study of ordinances, codes, and legal documents as they relate to specifications and drawing. Discussion of owner-architect-contractor responsibilities, duties, and legal relationships.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ARCE1303 - Architectural Materials and Methods of Construction (3)

Corequisites

- Completed or concurrently enrolled in:
    - ARCE1303 - Architectural Materials and Methods of Construction (3)

ARCE1352 - Structural Drafting

<u>**Course Title**</u>

Structural Drafting

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
  - DFTG2328 - Architectural Drafting - Commercial (3)

ARCE2052 - Mechanical and Electrical Systems

Course Title

Mechanical and Electrical Systems

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Semester Credit Hours

0

ARCE2352 - Mechanical and Electrical Systems

Course Title

Mechanical and Electrical Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DFTG2328 - Architectural Drafting - Commercial (3)

Corequisites

- Completed or concurrently enrolled in:
    - DFTG2328 - Architectural Drafting - Commercial (3)

Arts

ARTS1301 - Art Appreciation
Course Title

Art Appreciation

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ARTS1304 - Art History II
Course Title

Art History II

Academic Level

Undergraduate

Description

A chronological analysis of the historical and cultural contexts of the visual arts from the 14th century to the present day.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ARTS2326 - Sculpture I
Course Title

Sculpture I

Academic Level

Undergraduate

Description

Exploration of ideas using sculpture media and techniques.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Auctioneering

AUCT2001 - License Renewal for Auctioneer
Course Title

License Renewal for Auctioneer

Academic Level

Continuing Education

Description

Refresher course in the universal standards of auctioneering practices and the various state and federal statutes that govern the licensing of auctioneers for the purpose of license renewal. Includes the study of the Texas Auctioneer Law, professionalism, conduct, ethics, deceptive trade practice law, and other applicable laws.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

6

Semester Credit Hours

0

Autobody

ABDR1031 - Basic Refinishing
Course Title

Basic Refinishing

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ABDR1203 - Vehicle Design and Structural Analysis
Course Title

Vehicle Design and Structural Analysis

Academic Level

Undergraduate

Description

An introduction to the collision repair industry with emphasis on safety, professionalism, and vehicle structural design.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

ABDR1207 - Collision Repair Welding
Course Title

Collision Repair Welding

Academic Level

Undergraduate

Description

A study of collision repair welding and cutting procedures.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

ABDR1215 - Vehicle Trim and Hardware
Course Title

Vehicle Trim and Hardware

Academic Level

Undergraduate

Description

A study of vehicle trim and glass service.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

ABDR1266 - Practicum

Course Title

Practicum

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

14

Total Contact Hours

224

Credits

2

Semester Credit Hours

2

Prerequisites

- Rule Not Selected

ABDR1280 - Cooperative Education - Autobody/Collision and Repair Technology/Technician
Course Title

Cooperative Education - Autobody/Collision and Repair Technology/Technician

Academic Level

Undergraduate

Description

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.

Students are required to complete 176 hrs total in the semester. It is recomended that a student completes 23.5 hours a week for the 7.5 week coop. The position and company must be pre-approved before a student signs up for the coop class. Employer reviews and hour logs are required.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

10

Total Contact Hours

176

Credits

2

Semester Credit Hours

2

ABDR1307 - Collision Repair Welding

Course Title

Collision Repair Welding

Academic Level

Undergraduate

Description

A study of industry and standard welding and cutting procedures.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ABDR1215 - Vehicle Trim and Hardware (2)

ABDR1323 - Front and Rear Wheel Alignment
Course Title

Front and Rear Wheel Alignment

Academic Level

Undergraduate

Description

Study of vehicle steering components including alignment, tire rotation, and balancing.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ABDR2435 - Structural Analysis and Damage Repair IV (4)

ABDR1331 - Basic Refinishing

Course Title

Basic Refinishing

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ABDR1349 - Automotive Plastic and Sheet Molded Compound Repair
Course Title

Automotive Plastic and Sheet Molded Compound Repair

Academic Level

Undergraduate

Description

A comprehensive course in repair of interior and exterior plastics including the use of various types of adhesives.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Corequisites

- - ABDR1431 - Basic Refinishing (4)
    - AACT2373 - Factory I/O (3)
    - ABDR2449 - Advanced Refinishing (4)
    - ABDR1203 - Vehicle Design and Structural Analysis (2)

ABDR1359 - Sheet Metal Fabrication I
Course Title

Sheet Metal Fabrication I

Academic Level

Undergraduate

Description

A study of the basic shaping techniques required for fabricating sheet metal parts and pieces. Discussion will include custom cars and street rods.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

ABDR1371 - Basic Paint Techniques, Equipment & Environmental Practices
Course Title

Basic Paint Techniques, Equipment & Environmental Practices

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

112

Credits

3

Semester Credit Hours

3

ABDR1411 - Vehicle Measurement and Damage Repair Procedures
Course Title

Vehicle Measurement and Damage Repair Procedures

Academic Level

Undergraduate

Description

Introduction to vehicle measurement and structural alignment equipment.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

ABDR1419 - Basic Metal Repair
Course Title

Basic Metal Repair

Academic Level

Undergraduate

Description

Covers basic metal principles and working techniques including proper tool usage and product application.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

ABDR1431 - Basic Refinishing

Course Title

Basic Refinishing

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - ABDR1371 - Basic Paint Techniques, Equipment & Environmental Practices (3)

ABDR1441 - Struct Analysis & Damage Repair I

Course Title

Struct Analysis & Damage Repair I

Academic Level

Undergraduate

Description

Expanded training in the roughing and shaping procedures on automotive sheet metal necessary to perform body repairs. Emphasis on the alignment of component parts such as doors, hood, front-end assemblies, and deck lids.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

ABDR1442 - Structural Analysis and Damage Repair II
<u>**Course Title**</u>

Structural Analysis and Damage Repair II

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Continuation of general repair and replacement procedures for damaged structural parts and collision damage.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

6

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

128

<u>**Credits**</u>

4

<u>**Semester Credit Hours**</u>

4

<u>**Prerequisites**</u>

- Complete the following:
    - ABDR1323 - Front and Rear Wheel Alignment (3)
    - ABDR1419 - Basic Metal Repair (4)
    - ABDR2435 - Structural Analysis and Damage Repair IV (4)

ABDR1458 - Intermediate Refinishing

Course Title

Intermediate Refinishing

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - ABDR1371 - Basic Paint Techniques, Equipment & Environmental Practices (3)

ABDR1472 - Cosmetic Repair and Conditioning
Course Title

Cosmetic Repair and Conditioning

Academic Level

Undergraduate

Description

This course is intended to educate the entry-level technician to the Tesla Motors advanced autobody repair technology. Topics will included, but not limited to safety, dent removal and repair, estimating, sanding and refinishingvehicle make ready.

Lecture Hours

2

Lab Hours

8

Ext. Con. Hrs

0

Total Contact Hours

160

Credits

4

Semester Credit Hours

4

ABDR1473 - Tesla Specialized Welding
Course Title

Tesla Specialized Welding

Academic Level

Undergraduate

Description

This course is intended to educate the entry-level technician to the Tesla Motors advanced autobody repair technology. Topics will included, but not limited to safety, steel welding, aluminum welding, rivet bonding and weld bonding.

Lecture Hours

2

Lab Hours

8

Ext. Con. Hrs

0

Total Contact Hours

160

Credits

4

Semester Credit Hours

4

ABDR1474 - Tesla Structural Repair
Course Title

Tesla Structural Repair

Academic Level

Undergraduate

Description

This course is intended to educate the entry-level technician to the Tesla Motors advanced autobody repair technology. Topics will include, but not limited to safety, estimating, structural repairs, OEM repair procedures

Lecture Hours

2

Lab Hours

8

Ext. Con. Hrs

0

Total Contact Hours

160

Credits

4

Semester Credit Hours

4

ABDR1481 - Cooperative Education - Autobody/Collision and Repair Technology/Technician

Course Title

Cooperative Education - Autobody/Collision and Repair Technology/Technician

Academic Level

Undergraduate

Description

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.

Additional Course Information

Students are required to complete 352 hours total in the semester. It is recommended that a student completes 23.5 hours a week for the 15 week semester. The position and company must be pre-approved before a student signs up for the coop class. Employer reviews and hour logs are required.

Lecture Hours

16

Lab Hours

0

Ext. Con. Hrs

336

Total Contact Hours

352

Credits

4

Semester Credit Hours

4

ABDR1542 - Structural Analysis and Damage Repair II
Course Title

Structural Analysis and Damage Repair II

Academic Level

Undergraduate

Description

Continuation of general repair and replacement procedures for damaged structural parts and collision damage.

Lecture Hours

3

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

144

Credits

5

Semester Credit Hours

5

ABDR2255 - Collision Repair Estimating
Course Title

Collision Repair Estimating

Academic Level

Undergraduate

Description

An advanced course in collision estimating and development of a damage report utilizing estimating software.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

ABDR2270 - Advanced Application Processes of Refinishing
Course Title

Advanced Application Processes of Refinishing

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

8

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
  - ABDR2449 - Advanced Refinishing (4)
  - ABDR2551 - Specialized Refinishing Techniques (5)

ABDR2281 - Cooperative Education - Autobody/Collision and Repair Technology/Technician
Course Title

Cooperative Education - Autobody/Collision and Repair Technology/Technician

Academic Level

Undergraduate

Description

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.

Students are required to complete 176 hrs total in the semester. It is recomended that a student completes 23.5 hours a week for the 7.5 week coop. The position and company must be pre-approved before a student signs up for the coop class. Employer reviews and hour logs are required.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

10

Total Contact Hours

176

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - ABDR2449 - Advanced Refinishing (4)
    - ABDR2551 - Specialized Refinishing Techniques (5)

ABDR2305 - Sheet Metal Fab II
Course Title

Sheet Metal Fab II

Academic Level

Undergraduate

Description

A study of the advanced shaping techniques required for fabricating sheet metal parts and pieces. Discussion will include custom cars and street rods.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ABDR2345 - Vehicle Safety Systems
Course Title

Vehicle Safety Systems

Academic Level

Undergraduate

Description

Theory and operation of air bags and other passive and non-passive restraint systems including automotive anti-lock systems and diagnostic methods used in the collision repair industry.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ABDR2357 - Collision Repair Shop Management

Course Title

Collision Repair Shop Management

Academic Level

Undergraduate

Description

Examination of shop management functions and decision-making processes including planning, organizing, leading and staffing used in collision repair shops to ensure operational profitability.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ABDR2255 - Collision Repair Estimating (2)

ABDR2359 - Structural Sectioning

<u>**Course Title**</u>

Structural Sectioning

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - ABDR1307 - Collision Repair Welding (3)
    - ABDR1419 - Basic Metal Repair (4)
    - ABDR2435 - Structural Analysis and Damage Repair IV (4)

ABDR2371 - Refinishing Process I

Course Title

Refinishing Process I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ABDR1458 - Intermediate Refinishing (4)
    - ABDR1431 - Basic Refinishing (4)

ABDR2380 - Cooperative Education - Autobody/Collision and Repair Technology/Technician

Course Title

Cooperative Education - Autobody/Collision and Repair Technology/Technician

Academic Level

Undergraduate

Description

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.

Students are required to complete 240 hrs total in the semester. It is recomended that a student completes 32 hours a week for the 7.5 week coop. The position and company must be pre-approved before a student signs up for the coop class. Employer reviews and hour logs are required.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

14

Total Contact Hours

240

Credits

3

Semester Credit Hours

3

ABDR2381 - Cooperative Education - Autobody/Collision and Repair Technology/Technician
Course Title

Cooperative Education - Autobody/Collision and Repair Technology/Technician

Academic Level

Undergraduate

Description

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.

Students are required to complete 240 hrs total in the semester. It is recomended that a student completes 32 hours a week for the 7.5 week coop. The position and company must be pre-approved before a student signs up for the coop class. Employer reviews and hour logs are required.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

14

Total Contact Hours

240

Credits

3

Semester Credit Hours

3

ABDR2402 - Auto Body Mechanical & Electrical Srvc. Service

Course Title

Auto Body Mechanical & Electrical Srvc. Service

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

ABDR2435 - Structural Analysis and Damage Repair IV
Course Title

Structural Analysis and Damage Repair IV

Academic Level

Undergraduate

Description

Continuation of skills development in the repair and replacement of major body units.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - ABDR1215 - Vehicle Trim and Hardware (2)

ABDR2447 - Advanced Collision Repair Welding
Course Title

Advanced Collision Repair Welding

Academic Level

Undergraduate

Description

Skill development in the use of advanced welding and cutting processes. Emphasizes current welding procedures and specific repair requirements for specialized metals.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - ABDR1307 - Collision Repair Welding (3)

ABDR2449 - Advanced Refinishing

Course Title

Advanced Refinishing

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - ABDR1458 - Intermediate Refinishing (4)
    - ABDR1431 - Basic Refinishing (4)

ABDR2453 - Color Analysis and Paint Matching
Course Title

Color Analysis and Paint Matching

Academic Level

Undergraduate

Description

Advanced course in color theory, analysis, tinting, and blending techniques for acceptable paint matching.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - ABDR2449 - Advanced Refinishing (4)
  - ABDR2551 - Specialized Refinishing Techniques (5)

ABDR2502 - Auto Body Mechanical and Electrical Service

Course Title

Auto Body Mechanical and Electrical Service

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

144

Credits

5

Semester Credit Hours

5

Prerequisites

- Complete the following:
    - ABDR1307 - Collision Repair Welding (3)
    - ABDR1419 - Basic Metal Repair (4)
    - ABDR2435 - Structural Analysis and Damage Repair IV (4)

ABDR2551 - Specialized Refinishing Techniques
Course Title

Specialized Refinishing Techniques

Academic Level

Undergraduate

Description

Advanced topics in specialty automotive refinishing. Emphasis on refinishing plastics, fiberglass, aluminum, and galvanized panels as well as custom graphics and current industry innovations.

Lecture Hours

3

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

144

Credits

5

Semester Credit Hours

5

Prerequisites

- Complete the following:
    - ABDR1458 - Intermediate Refinishing (4)
    - ABDR1431 - Basic Refinishing (4)

Automated Office

POFI1001 - Computer Applications I
Course Title

Computer Applications I

Academic Level

Continuing Education

Description

Overview of computer office applications including current terminology and technology. Introduction to computer hardware, software applications, and procedures.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

0

POFI1004 - Computer Fundamentals
Course Title

Computer Fundamentals

Academic Level

Continuing Education

Description

Computer applications specific to business-related software. Emphasizes the concurrent development of office skills and computer knowledge.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

POFI1005 - Intro. to Ms Publisher 2007
Course Title

Intro. to Ms Publisher 2007

Academic Level

Continuing Education

Description

Desktop publishing terminology, text editing, and use of design principles to create business documents.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

POFI1042 - Word Processing Applications II
Course Title

Word Processing Applications II

Academic Level

Continuing Education

Description

Word processing production techniques. Includes search and replace functions, headers and footers, mail merge, file functions, and printer setup.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

POFI1349 - Spreadsheets
Course Title

Spreadsheets

Academic Level

Undergraduate

Description

Skill development in concepts, procedures, and application of spreadsheets. This course is designed to be repeated multiple times to improve student proficiency.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

POFI2037 - Word Processing Applications III
Course Title

Word Processing Applications III

Academic Level

Continuing Education

Description

Advanced instruction in document preparation, editing, and formatting. Emphasizes special problems encountered in business and industry.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

POFI2301 - Word Processing
Course Title

Word Processing

Academic Level

Undergraduate

Description

Word processing software focusing on business applications. This course is designed to be repeated multiple times to improve student proficiency.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Automation & Controls

AACT1371 - Electronics Fundamentals in Automation
Course Title

Electronics Fundamentals in Automation

Academic Level

Undergraduate

Description

An entry level course in electronics to include Ohm's law, Kirchhoff's laws, AC circuits, capacitance, inductance, and circuit analysis techniques.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AACT1372 - Automation Safety and Compliance
Course Title

Automation Safety and Compliance

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AACT1373 - Administrative Skills for Technicians

Course Title

Administrative Skills for Technicians

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AACT1374 - Electronics Fundamentals in Automation II
Course Title

Electronics Fundamentals in Automation II

Academic Level

Undergraduate

Description

Advanced study of the fundamentals of electronics used in automation to include transistors, filters, diodes, IGBTs, SCRs and optic electronics, and
encoders

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AACT1371 - Electronics Fundamentals in Automation (3)

AACT1375 - Principles of Motion, Measurement and Position I

Course Title

Principles of Motion, Measurement and Position I

Academic Level

Undergraduate

Description

This course explores theoretical concepts in motor control. Emphasis in different systems design, protection control devices, close and open loop control. In-depth coverage of different motors designs and control systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - AACT1371 - Electronics Fundamentals in Automation (3)

AACT1376 - Intro to Process Control Devices

Course Title

Intro to Process Control Devices

Academic Level

Undergraduate

Description

Overview of process control applications. Introduction process controls programming, electrical devices, mechanical systems and calibration.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AACT1371 - Electronics Fundamentals in Automation (3)

AACT2371 - Automation Control Systems Interfacing I
Course Title

Automation Control Systems Interfacing I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AACT1376 - Intro to Process Control Devices (3)

AACT2372 - Automation Control Systems Interfacing II

Course Title

Automation Control Systems Interfacing II

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - AACT2371 - Automation Control Systems Interfacing I (3)

AACT2373 - Factory I/O
Course Title

Factory I/O

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AACT2376 - PLC Automation I (3)

AACT2374 - PLC Automation II

Course Title

PLC Automation II

Academic Level

Undergraduate

Description

Advanced applications of programmable logic controllers as used in automated manufacturing utilizing various programming techniques and protocols. Emphasis on device interconnectivity, design, implementation, troubleshooting, and interfacing to equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AACT2376 - PLC Automation I (3)

AACT2375 - Principles of Motion, Measurement and Position II

Course Title

Principles of Motion, Measurement and Position II

Academic Level

Undergraduate

Description

This course covers the principles of motion control devises used in industry. Topics include the design, development, and current applications of motion control devises systems including their configuration, operation, and control. Upon completion students will be able to wire and program different control devices used in automation for motion control.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AACT2371 - Automation Control Systems Interfacing I (3)

AACT2376 - PLC Automation I
Course Title

PLC Automation I

Academic Level

Undergraduate

Description

Basic course in programmable logic controller with emphasis on automated systems. In-depth coverage of hardware identification, basic ladder programming and basic wiring of inputs and outputs.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - AACT1375 - Principles of Motion, Measurement and Position I (3)

Automotive

AUMT1001 - Vehicle Maintenance & Services
Course Title

Vehicle Maintenance & Services

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

AUMT1166 - Practicum (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician

Course Title

Practicum (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

This course is taught by the manufacturer programs, with Min-Max 30-40 hours a week for 7 weeks

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

8

Total Contact Hours

128

Credits

1

Semester Credit Hours

1

AUMT1167 - Practicum (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician

Course Title

Practicum (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

This course is taught by the manufacturer programs, with Min-Max 30-40 hours a week for 7 weeks

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

8

Total Contact Hours

128

Credits

1

Semester Credit Hours

1

AUMT1201 - Introduction and Theory of Automotive Technology
Course Title

Introduction and Theory of Automotive Technology

Academic Level

Undergraduate

Description

An introductory overview of the automotive service industry including history, safety practices, shop equipment and tools, vehicle subsystems, service publications, professional responsibilities, and automobile maintenance.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

AUMT1249 - Automotive Electronics Theory
Course Title

Automotive Electronics Theory

Academic Level

Undergraduate

Description

A course in automotive technology including electrical principles, semiconductor and integrated circuits, digital fundamentals, microcomputer systems, and electrical test equipment.

Lecture Hours

2

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

AUMT1266 - Practicum-Automotive/Auto Mechanics Tech

Course Title

Practicum-Automotive/Auto Mechanics Tech

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

20

Total Contact Hours

320

Credits

2

Semester Credit Hours

2

AUMT1280 - Cooperative Education- Automobile/ Automotive Mechanics Technology/Tech

Course Title

Cooperative Education- Automobile/ Automotive Mechanics Technology/Tech

Academic Level

Undergraduate

Description

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.

This course is taught by the manufacturer programs, with Min-Max 30-40 hours a week for 7 weeks

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

9

Total Contact Hours

160

Credits

2

Semester Credit Hours

2

AUMT1281 - Cooperative Education- Automobile/ Automotive Mechanics Technology/Tech

Course Title

Cooperative Education- Automobile/ Automotive Mechanics Technology/Tech

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

10

Total Contact Hours

176

Credits

2

Semester Credit Hours

2

AUMT1305 - Introduction to Automotive Technology

Course Title

Introduction to Automotive Technology

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AUMT1307 - Automotive Electrical Systems
Course Title

Automotive Electrical Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AUMT1310 - Automotive Brake Systems
Course Title

Automotive Brake Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AUMT1312 - Basic Automotive Service
Course Title

Basic Automotive Service

Academic Level

Undergraduate

Description

Basic automotive service. Includes compliance with safety and hazardous material handling procedures and maintenance of shop equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AUMT1319 - Automotive Engine Repair
Course Title

Automotive Engine Repair

Academic Level

Undergraduate

Description

Fundamentals of engine operation, diagnosis and repair. Emphasis on identification, inspection, measurements, disassembly, repair, and reassembly of the engine. May be taught manufacturer specific.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AUMT1345 - Automotive Climate Control Systems
Course Title

Automotive Climate Control Systems

Academic Level

Undergraduate

Description

Diagnosis and repair of manual/electronic climate control systems. Includes the refrigeration cycle and EPA guidelines for refrigerant handling. May be taught manufacturer specific.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
  - Complete the following:
    - AUMT1307 - Automotive Electrical Systems (3)
  - Complete at least 1 of the following:
    - AUMT1201 - Introduction and Theory of Automotive Technology (2)
    - AUMT1305 - Introduction to Automotive Technology (3)

Corequisites

- Complete the following:
  - AUMT1307 - Automotive Electrical Systems (3)

AUMT1380 - Cooperative Education - Automobile/Automotive Mechanics Technology/Technician

Course Title

Cooperative Education - Automobile/Automotive Mechanics Technology/Technician

Academic Level

Undergraduate

Description

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.

This course is the technicial elective for the AUT.MLR.CER1 with a minimun requirement of 15 hours per week for 15 weeks

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

14

Total Contact Hours

240

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - AUMT1310 - Automotive Brake Systems (3)

Corequisites

- Completed or concurrently enrolled in:
  - AUMT1310 - Automotive Brake Systems (3)

AUMT1407 - Automotive Electrical Systems
Course Title

Automotive Electrical Systems

Academic Level

Undergraduate

Description

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. null null

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AUMT1410 - Automotive Brake Systems
Course Title

Automotive Brake Systems

Academic Level

Undergraduate

Description

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. null null

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AUMT1416 - Automotive Suspension and Steering Systems

Course Title

Automotive Suspension and Steering Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AUMT1419 - Automotive Engine Repair

Course Title

Automotive Engine Repair

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - AUMT1305 - Introduction to Automotive Technology (3)

AUMT1471 - Introduction and Theory of Tesla Vehicles

Course Title

Introduction and Theory of Tesla Vehicles

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AUMT1472 - Automotive Electrical, Chassis, Driver Assist Systems Theory

Course Title

Automotive Electrical, Chassis, Driver Assist Systems Theory

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AUMT1473 - Automotive Electronics Theory
Course Title

Automotive Electronics Theory

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AUMT1474 - Infotainment Systems and Service Center Skills
Course Title

Infotainment Systems and Service Center Skills

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AUMT2030 - Auto Steering & Suspension
Course Title

Auto Steering & Suspension

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

AUMT2035 - Auto Service Excellence-Ase
Course Title

Auto Service Excellence-Ase

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

AUMT2188 - Internship (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician
Course Title

Internship (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician

Academic Level

Undergraduate

Description

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.

This course is taught by the manufacturer programs, with Min-Max 30-40 hours a week for 7 weeks

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

6

Total Contact Hours

96

Credits

1

Semester Credit Hours

1

AUMT2189 - Internship (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician

Course Title

Internship (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician

Academic Level

Undergraduate

Description

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.

This course is taught by the manufacturer programs, with Min-Max 30-40 hours a week for 7 weeks

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

6

Total Contact Hours

96

Credits

1

Semester Credit Hours

1

Prerequisites

- Complete the following:
    - AUMT2417 - Automotive Engine Performance Analysis I (4)
    - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)

Corequisites

- Complete the following:
    - AUMT2417 - Automotive Engine Performance Analysis I (4)

AUMT2266 - Practicum - Automotive/Auto Mechanics Te
Course Title

Practicum - Automotive/Auto Mechanics Te

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

20

Total Contact Hours

320

Credits

2

Semester Credit Hours

2

AUMT2288 - Internship - Automobile/Automotive Mechanics Technology/Technician
Course Title

Internship - Automobile/Automotive Mechanics Technology/Technician

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

6

Total Contact Hours

96

Credits

2

Semester Credit Hours

2

AUMT2289 - Internship (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician

Course Title

Internship (or Field Experience) - Automobile/Automotive Mechanics Technology/Technician

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

9

Total Contact Hours

144

Credits

2

Semester Credit Hours

2

AUMT2301 - Automotive Management

Course Title

Automotive Management

Academic Level

Undergraduate

Description

Study of human and customer relations, and customer satisfaction in the automotive service industry. Emphasis on management and building relationships between the service department and the customer. null null

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

AUMT2302 - Automotive Compression Ignition Engines & Fuel Systems
Course Title

Automotive Compression Ignition Engines & Fuel Systems

Academic Level

Undergraduate

Description

Diagnosis and repair of modern light-duty automotive compression ignition engines and related systems. Includes the use of advanced engine performance diagnostic equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AUMT2417 - Automotive Engine Performance Analysis I (4)

AUMT2307 - Hybrid Systems Diagnostics
<u>**Course Title**</u>

Hybrid Systems Diagnostics

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

An advanced study of hybrid vehicles and the unique characteristics of hybrid systems. Includes hybrid safety procedures and diagnosis and repair of hybrid systems.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
  - AUMT2413 - Automotive Drive Train and Axles (4)

<u>**Corequisites**</u>

- Complete the following:
  - AUMT2425 - Automotive Automatic Transmission and Transaxle (4)

AUMT2310 - Automotive Service Consultant
Course Title

Automotive Service Consultant

Academic Level

Undergraduate

Description

Automotive service consulting skills and procedures. Includes vehicle identification, product knowledge, shop operations, warranty service contracts, communications, customer relations, internal relations, and sales skills. Emphasizes courtesy, professionalism, and communications.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AUMT2313 - Automotive Drive Train and Axles
Course Title

Automotive Drive Train and Axles

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AUMT2321 - Automotive Electrical Diagnosis and Repair
Course Title

Automotive Electrical Diagnosis and Repair

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AUMT2328 - Automotive Service

Course Title

Automotive Service

Academic Level

Undergraduate

Description

Mastery of automotive service including competencies covered in related courses. May be taught manufacturer specific.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AUMT2413 - Automotive Drive Train and Axles (4)
    - AUMT2417 - Automotive Engine Performance Analysis I (4)
    - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)

AUMT2337 - Automotive Electronics
Course Title

Automotive Electronics

Academic Level

Undergraduate

Description

Study of electronic principles applied to microcomputers and communication systems. Includes digital fundamentals, and use of electronic test equipment. May be taught manufacturer specific.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)

Corequisites

- Complete the following:
    - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)

AUMT2357 - Automotive Alternative Fuels

Course Title

Automotive Alternative Fuels

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AUMT2380 - Cooperative Education - Automobile/Automotive Mechanics Technology/Technician

Course Title

Cooperative Education - Automobile/Automotive Mechanics Technology/Technician

Academic Level

Undergraduate

Description

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.

This course is the technical elective for AUT.AAS & AUT.CER2 with a minimum of 20 hours per week for 15 weeks

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

19

Total Contact Hours

320

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AUMT2413 - Automotive Drive Train and Axles (4)
    - AUMT2417 - Automotive Engine Performance Analysis I (4)
    - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)

Corequisites

- Complete the following:
    - AUMT1307 - Automotive Electrical Systems (3)

AUMT2407 - Hybrid Systems Diagnostics
Course Title

Hybrid Systems Diagnostics

Academic Level

Undergraduate

Description

An advanced study of hybrid vehicles and the unique characteristics of hybrid systems. Includes hybrid safety procedures and diagnosis and repair of hybrid systems.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AUMT2413 - Automotive Drive Train and Axles
Course Title

Automotive Drive Train and Axles

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AUMT2417 - Automotive Engine Performance Analysis I
Course Title

Automotive Engine Performance Analysis I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete all of the following
    - Complete at least 3 credits from the following:
        - AUMT1201 - Introduction and Theory of Automotive Technology (2)
        - AUMT1305 - Introduction to Automotive Technology (3)
    - Complete the following:
        - AUMT1307 - Automotive Electrical Systems (3)
        - AUMT1419 - Automotive Engine Repair (4)

Corequisites

- Complete the following:
    - AUMT1419 - Automotive Engine Repair (4)

AUMT2425 - Automotive Automatic Transmission and Transaxle
Course Title

Automotive Automatic Transmission and Transaxle

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - AUMT2417 - Automotive Engine Performance Analysis I (4)
    - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)

Corequisites

- Complete the following:
    - AUMT2417 - Automotive Engine Performance Analysis I (4)

AUMT2434 - Automotive Engine Performance Analysis II

Course Title

Automotive Engine Performance Analysis II

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - AUMT2417 - Automotive Engine Performance Analysis I (4)
    - AUMT2321 - Automotive Electrical Diagnosis and Repair (3)

Corequisites

- Complete the following:
    - AUMT2417 - Automotive Engine Performance Analysis I (4)

AUMT2457 - Automotive Alternative Fuels
Course Title

Automotive Alternative Fuels

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AUMT2470 - Automotive Compression Ignition Engines & Fuel Systems
Course Title

Automotive Compression Ignition Engines & Fuel Systems

Academic Level

Undergraduate

Description

Diagnosis and repair of modern light-duty automotive compression ignition engines, air induction systems, fuel systems, and exhaust after treatment systems. Emphasis is placed on the differences between diagnosis and repair of spark-ignition engine systems and compression ignition engine systems.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Aviation

AVIM1090 - Special Topics in Aviation and Airway Sc

Course Title

Special Topics in Aviation and Airway Sc

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

AVIM1391 - Special Topics in Aviation Management
Course Title

Special Topics in Aviation Management

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AVIM2337 - Aviation Law
Course Title

Aviation Law

Academic Level

Undergraduate

Description

A study of domestic and international aviation law.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Aviation/Aircraft Maintenance

AERM1091 - Special Topics in Aircraft Mechanic/ Technician Airframe
Course Title

Special Topics in Aircraft Mechanic/ Technician Airframe

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

AERM1092 - Special Topics in Aircraft Mechanic/ Technician Powerplant

Course Title

Special Topics in Aircraft Mechanic/ Technician Powerplant

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

60

Semester Credit Hours

0

AERM1107 - Aviation Mathematics

Course Title

Aviation Mathematics

Academic Level

Undergraduate

Description

Fundamentals of mathematics applied to aircraft principles and operations as required by the Federal Aviation Administration for airframe and powerplant mechanics. null null

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

AERM1109 - Aviation Physics
Course Title

Aviation Physics

Academic Level

Undergraduate

Description

Fundamentals of physics applied to aircraft principles and operations as required by the Federal Aviation Administration for airframe and powerplant mechanics.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

1

Semester Credit Hours

1

AERM1112 - Aviation Drawings
Course Title

Aviation Drawings

Academic Level

Undergraduate

Description

Fundamentals of aviation drawings applied to aircraft principles and operations as required by the Federal Aviation Administration for airframe and powerplant mechanics.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

1

Semester Credit Hours

1

AERM1153 - Aircraft Welding

Course Title

Aircraft Welding

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

1

Semester Credit Hours

1

Prerequisites

- Complete the following:
    - AERM1203 - Shop Practices (2)

AERM1203 - Shop Practices
Course Title

Shop Practices

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

AERM1205 - Weight and Balance
Course Title

Weight and Balance

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

AERM1208 - Federal Aviation Regulations
Course Title

Federal Aviation Regulations

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

AERM1210 - Ground Operations
Course Title

Ground Operations

Academic Level

Undergraduate

Description

An introductory course in fuels, servicing methods, safety procedures, aircraft movement, securing and operations of aircraft, external power equipment, aircraft cleaning, and corrosion control.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

AERM1240 - Aircraft Propellers

__Course Title__

Aircraft Propellers

__Academic Level__

Undergraduate

__Description__

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.

__Lecture Hours__

1

__Lab Hours__

4

__Ext. Con. Hrs__

0

__Total Contact Hours__

80

__Credits__

2

__Semester Credit Hours__

2

__Prerequisites__

- Complete at least 1 of the following:
    - AERM1109 - Aviation Physics (1)
    - AERM1315 - Aviation Science (3)

AERM1241 - Wood, Fabric, and Finishes
Course Title

Wood, Fabric, and Finishes

Academic Level

Undergraduate

Description

A course in the use and care of various covering materials, finishes, and wood structures including approved methods and procedures. Safety also addressed.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

AERM1243 - Instruments and Navigation/Communication

Course Title

Instruments and Navigation/Communication

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete at least 1 of the following:
    - AERM1314 - Basic Electricity (3)
    - AERM1414 - Basic Electricity (4)

AERM1247 - Airframe Auxiliary Systems
Course Title

Airframe Auxiliary Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

AERM1253 - Aircraft Welding
Course Title

Aircraft Welding

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

AERM1254 - Aircraft Composites
__Course Title__

Aircraft Composites

__Academic Level__

Undergraduate

__Description__

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.

__Lecture Hours__

1

__Lab Hours__

4

__Ext. Con. Hrs__

0

__Total Contact Hours__

80

__Credits__

2

__Semester Credit Hours__

2

AERM1314 - Basic Electricity
Course Title

Basic Electricity

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AERM1315 - Aviation Science
Course Title

 Aviation Science

Academic Level

 Undergraduate

Description

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.

Lecture Hours

 2

Lab Hours

 4

Ext. Con. Hrs

 0

Total Contact Hours

 96

Credits

 3

Semester Credit Hours

 3

AERM1340 - Aircraft Propellers
Course Title

 Aircraft Propellers

Academic Level

 Undergraduate

Description

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. null null

Lecture Hours

 2

Lab Hours

 4

Ext. Con. Hrs

 0

Total Contact Hours

 96

Credits

 3

Semester Credit Hours

 3

AERM1343 - Instruments and Navigation/Communication

Course Title

Instruments and Navigation/Communication

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AERM1344 - Aircraft Reciprocating Engines
Course Title

Aircraft Reciprocating Engines

Academic Level

Undergraduate

Description

A study of reciprocating engines and their development, operating principles, and theory. Instruction in engine instruments, lubricating, and exhaust systems. Fundamentals of satefy will also be addressed.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AERM1345 - Airframe Electrical Systems

Course Title

Airframe Electrical Systems

Academic Level

Undergraduate

Description

A study of airframe electrical systems including installation, removal, disassembly, and repair of electrical components and related wiring. Fundamentals of electrical safety also addressed.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
  - AERM1314 - Basic Electricity (3)
  - AERM1414 - Basic Electricity (4)

AERM1347 - Airframe Auxiliary Systems
Course Title

Airframe Auxiliary Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete 1 of the following
  - Complete the following:
    - AERM1315 - Aviation Science (3)
    - AERM1314 - Basic Electricity (3)
  - Complete at least 1 of the following:
    - AERM1109 - Aviation Physics (1)
    - AERM1414 - Basic Electricity (4)

AERM1350 - Landing Gear Systems
Course Title

Landing Gear Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

AERM1351 - Aircraft Turbine Engine Theory
Course Title

Aircraft Turbine Engine Theory

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - AERM1109 - Aviation Physics (1)
    - AERM1315 - Aviation Science (3)

AERM1352 - Aircraft Sheet Metal

Course Title

Aircraft Sheet Metal

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

7

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete the following:
        - AERM1107 - Aviation Mathematics (1)
        - AERM1112 - Aviation Drawings (1)
        - AERM1203 - Shop Practices (2)
    - Complete at least 1 of the following:
        - AERM1203 - Shop Practices (2)
        - AERM1315 - Aviation Science (3)

AERM1356 - Aircraft Powerplant Electrical
Course Title

Aircraft Powerplant Electrical

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

7

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - AERM1314 - Basic Electricity (3)
    - AERM1414 - Basic Electricity (4)

AERM1357 - Fuel Metering and Induction Systems
Course Title

Fuel Metering and Induction Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - AERM1109 - Aviation Physics (1)
    - AERM1315 - Aviation Science (3)

AERM1414 - Basic Electricity
<u>**Course Title**</u>

Basic Electricity

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

A study of aircraft electrical systems and their 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 safety also addressed.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

5

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

112

<u>**Credits**</u>

4

<u>**Semester Credit Hours**</u>

4

AERM1444 - Aircraft Reciprocating Engines
Course Title

Aircraft Reciprocating Engines

Academic Level

Undergraduate

Description

Reciprocating engines, their development, operating principles, and theory. Includes engine instruments, lubrication, and exhaust systems. Also addresses fundamentals of safety.

Lecture Hours

3

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

112

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete at least 1 of the following:
    - AERM1109 - Aviation Physics (1)
    - AERM1315 - Aviation Science (3)

AERM1449 - Hydraulic, Pneumatic, and Fuel Systems
<u>**Course Title**</u>

Hydraulic, Pneumatic, and Fuel Systems

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

112

<u>**Credits**</u>

4

<u>**Semester Credit Hours**</u>

4

<u>**Prerequisites**</u>

- Complete at least 1 of the following:
    - AERM1109 - Aviation Physics (1)
    - AERM1315 - Aviation Science (3)

AERM1452 - Aircraft Sheet Metal
Course Title

Aircraft Sheet Metal

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AERM1456 - Aircraft Powerplant Electrical
Course Title

Aircraft Powerplant Electrical

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

AERM2230 - FAA Review - Airframe

Course Title

FAA Review - Airframe

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

AERM2231 - Airframe Inspection
Course Title

Airframe Inspection

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

AERM2234 - FAA Review - Powerplant
Course Title

FAA Review - Powerplant

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

AERM2333 - Assembly and Rigging

Course Title

Assembly and Rigging

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - AERM1109 - Aviation Physics (1)
    - AERM1315 - Aviation Science (3)

AERM2341 - Powerplant and Auxiliary Power Units
Course Title

Powerplant and Auxiliary Power Units

Academic Level

Undergraduate

Description

Advanced concepts of auxiliary power unit (APU) and powerplant systems and components. Safety procedures will also be addressed.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - AERM1109 - Aviation Physics (1)
    - AERM1315 - Aviation Science (3)

AERM2351 - Aircraft Turbine Engine Overhaul

Course Title

Aircraft Turbine Engine Overhaul

Academic Level

Undergraduate

Description

Comprehensive study in inspection, disassembly, reassembly, and replacement of gas turbine engines, sections, and components including operational troubleshooting, analysis, and safety.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AERM1351 - Aircraft Turbine Engine Theory (3)

AERM2352 - Aircraft Powerplant Inspection

Course Title

Aircraft Powerplant Inspection

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

AERM2447 - Aircraft Reciprocating Engine Overhaul

Course Title

Aircraft Reciprocating Engine Overhaul

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - AERM1444 - Aircraft Reciprocating Engines (4)

Aviation/Pilot, Flight Instruc

AIRP1015 - Private Flight
Course Title

Private Flight

Academic Level

Continuing Education

Description

Flight training to prepare the student for the completion of the Federal Aviation Administration private pilot certificate, including dual and solo flight in the areas of maneuvers and cross-country navigation.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

AIRP1017 - Private Pilot Ground School
Course Title

Private Pilot Ground School

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

AIRP1175 - Intermediate Flight

Course Title

Intermediate Flight

Academic Level

Undergraduate

Description

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.

Additional Course Information

58 flight hours (primary trainer), 15 hours of flight instruction, 10 hours of Pre-flight, Post-flight, and Ground instruction.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

Prerequisites

- Complete the following:
  - AIRP1215 - Private Flight (2)

AIRP1215 - Private Flight
Course Title

Private Flight

Academic Level

Undergraduate

Description

Flight and ground training to prepare the student for the completion of the Federal Aviation Administration private pilot certificate.

Additional Course Information

58 flight hours (primary trainer), 52 hours of flight instruction, 45 hours of Pre-flight, Post-flight, and Ground instruction.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

AIRP1255 - Intermediate Flight
Course Title

Intermediate Flight

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

AIRP1275 - Aviation Safety
Course Title

Aviation Safety

Academic Level

Undergraduate

Description

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, aircraft technologies, and accident case studies.

Lecture Hours

2

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

AIRP1301 - Air Navigation

Course Title

Air Navigation

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AIRP1307 - Aviation Meteorology
Course Title

Aviation Meteorology

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

AIRP1313 - Introduction to Aviation
Course Title

Introduction to Aviation

Academic Level

Undergraduate

Description

A study of the historical development of the aviation industry, including key events in civil, military, and space exploration and an overview of legislation relating to aviation.

Lecture Hours

3

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

AIRP1341 - Advanced Air Navigation
Course Title

Advanced Air Navigation

Academic Level

Undergraduate

Description

Skill development in advanced airplane systems and performance including radio navigation and cross-country flight planning. Includes an intro- duction to instrument flight operations and navigation. This course may be used as part of a program leading to Federal Aviation Administration certification.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AIRP1343 - Aerodynamics
Course Title

Aerodynamics

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AIRP1345 - Aviation Safety
Course Title

Aviation Safety

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

AIRP1373 - Helicopter Aerodynamics
Course Title

Helicopter Aerodynamics

Academic Level

Undergraduate

Description

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, Helicopter Design, Aerodynamic forces on rotor airfoils, Stability Control and stability/controllability characteristics, hazardous flight conditions, and overlapping fixed-wing aerodynamics similarities.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AIRP1417 - Private Pilot Ground School
Course Title

Private Pilot Ground School

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

4

Semester Credit Hours

4

AIRP1451 - Instrument Ground School
Course Title

Instrument Ground School

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

4

Semester Credit Hours

4

AIRP1471 - Helicopter Instrument Ground School
Course Title

Helicopter Instrument Ground School

Academic Level

Undergraduate

Description

A study of basic instrument radio and navigation fundamentals used in instrument helicopter 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.

Lecture Hours

3

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

4

Semester Credit Hours

4

AIRP2039 - Commercial Flight
Course Title

Commercial Flight

Academic Level

Continuing Education

Description

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 for mastery of all commercial pilot maneuvers.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

AIRP2043 - Flight Instructor - Multiengine Airplane
Course Title

Flight Instructor - Multiengine Airplane

Academic Level

Continuing Education

Description

Flight instruction necessary to qualify for the Federal Aviation Administration Flight Instructor - Multiengine Airplane Rating. Includes combined ground and flight instruction and analysis of flight maneuvers.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

AIRP2050 - Instrument Flight
Course Title

Instrument Flight

Academic Level

Continuing Education

Description

Preparation for completion of the Federal Aviation Administration Instrument Pilot Rating with mastery of all instrument flight procedures.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

AIRP2051 - Multiengine Flight

Course Title

Multiengine Flight

Academic Level

Continuing Education

Description

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.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

AIRP2151 - Multiengine Flight

Course Title

Multiengine Flight

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

AIRP2172 - Flight Instructor-Instrument Helicopter
Course Title

Flight Instructor-Instrument Helicopter

Academic Level

Undergraduate

Description

Skill development in the fundamentals of teaching and learning in a helicopter oriented environment. Introduction to the techniques of instruction and analysis of helicopter flight maneuvers. Topics include helicopter flight instructor responsibilities and Federal Aviation Regulations relating to the instructor rating.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

AIRP2175 - Human Factors in Aviation
Course Title

Human Factors in Aviation

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Credits

1

Semester Credit Hours

1

AIRP2236 - Certified Flight Instructor - Flight
Course Title

Certified Flight Instructor - Flight

Academic Level

Undergraduate

Description

Flight and ground instruction required to qualify for the Federal Aviation Administration Certified Flight Instructor - Airplane certificate.

Additional Course Information

30 flight hours (primary trainer), 30 hours of flight instruction, 28 hours of Pre-flight, Post-flight, and Ground instruction.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - AIRP2239 - Commercial Flight (2)

AIRP2239 - Commercial Flight

Course Title

Commercial Flight

Academic Level

Undergraduate

Description

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.

Additional Course Information

50 flight hours (primary Trainer), 28 flight hours (complex trainer), 78 hours of flight instruction, 46.8 hours of Pre-flight, Post-flight, and Ground instruction.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
  - AIRP2250 - Instrument Flight (2)

AIRP2242 - Flight Instrument-Instruction Airplane
Course Title

Flight Instrument-Instruction Airplane

Academic Level

Undergraduate

Description

Flight and ground instruction required to qualify for the Federal Aviation Administration Certified Flight Instructor--Instrument Airplane certificate.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

AIRP2250 - Instrument Flight

Course Title

Instrument Flight

Academic Level

Undergraduate

Description

Preparation for completion of the Federal Aviation Administration Instrument Pilot Rating with mastery of all instrument flight procedures.

Additional Course Information

54 flight hours (primary trainer), 54 hours of flight instruction, 51 hours of Pre-flight, Post-flight, and Ground instruction.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - AIRP1215 - Private Flight (2)

AIRP2251 - Multiengine Flight

Course Title

Multiengine Flight

Academic Level

Undergraduate

Description

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.

Additional Course Information

20 flight hours (multi-engine trainer), 20 hours of flight instruction, 22 hours of Pre-flight, Post-flight, and Ground instruction.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - AIRP2239 - Commercial Flight (2)

AIRP2273 - Helicopter Commercial Flight
Course Title

Helicopter Commercial Flight

Academic Level

Undergraduate

Description

Helicopter 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 helicopter pilot maneuvers.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

AIRP2274 - Helicopter Certified Flight Instructor
Course Title

Helicopter Certified Flight Instructor

Academic Level

Undergraduate

Description

Helicopter flight and ground school instruction required to qualify for the Federal Aviation Administration Certified Flight Instructor-Helicopter certificate.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

AIRP2275 - Agricultural Aircraft Operations Flight
Course Title

Agricultural Aircraft Operations Flight

Academic Level

Undergraduate

Description

Flight and ground training to prepare the student for safe agricultural aerial application operations. The student will meet requirements for 14 CFR 137.19(e) upon completion of the course.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

AIRP2331 - Advanced Meteorology
Course Title

Advanced Meteorology

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

AIRP2333 - Aircraft Systems
Course Title

Aircraft Systems

Academic Level

Undergraduate

Description

Study of the general principles, operation, and application of pneumatic, hydraulic, electrical, fuel, environmental, protection, and warning systems. Emphasis on subsystems and control systems. null null

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

AIRP2337 - Commercial Ground School
Course Title

Commercial Ground School

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

AIRP2339 - Commercial Flight

Course Title

Commercial Flight

Academic Level

Undergraduate

Description

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.

Additional Course Information

50 flight hours (primary Trainer), 28 flight hours (complex trainer or TAA), 78 hours of flight instruction (Maximum Pre-flight, Post-flight 46.8), and 16 hours of Ground instruction.

Lecture Hours

1

Lab Hours

6

Total Contact Hours

112

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - AIRP2250 - Instrument Flight (2)

AIRP2349 - Instructor Ground School
Course Title

Instructor Ground School

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AIRP2355 - Propulsion Systems
Course Title

Propulsion Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AIRP2357 - Turbine Aircraft Systems Ground School
Course Title

Turbine Aircraft Systems Ground School

Academic Level

Undergraduate

Description

Instruction in the systems of specific turbine aircraft. Emphasis on the "glass cockpit", auxiliary power, aircraft systems, and the first officer's operational role.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

AIRP2370 - Helicopter Systems
Course Title

Helicopter Systems

Academic Level

Undergraduate

Description

Study of helicopter general principles, operation, and application of pneumatic, hydraulic, electrical, fuel, environmental, protection, and warning systems found in helicopters. Emphasis on subsystems, control, and rotor systems.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AIRP2371 - Helicopter Instructor Ground School

Course Title

Helicopter Instructor Ground School

Academic Level

Undergraduate

Description

Skill development in the fundamentals of teaching and learning in a helicopter oriented environment. Introduction to the techniques of instruction and analysis of helicopter flight maneuvers. Topics include helicopter flight instructor responsibilities and Federal Aviation Regulations relating to the instructor rating.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AIRP2374 - Helicopter Instrument Ground School
Course Title

Helicopter Instrument Ground School

Academic Level

Undergraduate

Description

A study of basic instrument radio and navigation fundamentals used in instrument helicopter 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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

AIRP2375 - Agricultural Aircraft Operations Ground School

Course Title

Agricultural Aircraft Operations Ground School

Academic Level

Undergraduate

Description

A study of aerial application techniques as it applies to aiding the agricultural industry. Topics include aerial application maneuvers, agricultural aviation GPS systems, regulations applicable to aerial application, and aerial application dispersal equipment. Includes preparation for the Texas Department of Agriculture Commercial Pesticide Applicator License exams.

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AIRP2376 - Helicopter Propulsion Systems
Course Title

Helicopter Propulsion Systems

Academic Level

Undergraduate

Description

In-depth coverage of aircraft engine theory and principles of operation of various types of helicopter engines. Topics include engine components, rotors, engine accessories, engine controls, and helicopter engine instrumentation to include glass cockpit instrumentation.

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

AIRP2449 - Instructor Ground School
Course Title

Instructor Ground School

Academic Level

Undergraduate

Description

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. Preparation for the Federal Aviation Administration Airman Certification Standards for Certified Flight Instructor.

Lecture Hours

3

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

4

Semester Credit Hours

4

Avionics

AVNC1303 - Introduction to Aviation Electronic Systems
Course Title

Introduction to Aviation Electronic Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

AVNC1306 - FAA Regulations for Avionics Certified Repair Station
Course Title

FAA Regulations for Avionics Certified Repair Station

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

AVNC1343 - Aviation Electrical and Electronic Systems Installation

Course Title

Aviation Electrical and Electronic Systems Installation

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AVNC1353 - Operational Testing of Aviation Electronic Systems
Course Title

Operational Testing of Aviation Electronic Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AVNC1391 - Installation & Operational Testing of Avionics & Pitot-Static Systems
Course Title

Installation & Operational Testing of Avionics & Pitot-Static Systems

Academic Level

Undergraduate

Description

A practical experience in the planning and execution, and testing of avionics and pitot-static installations. Advanced test equipment will be used where required.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AVNC2304 - Foundations in Avionics Equipment Component Level Repairs
Course Title

Foundations in Avionics Equipment Component Level Repairs

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AVNC2308 - Aviation Electrical and Electronics Systems Installation II

Course Title

Aviation Electrical and Electronics Systems Installation II

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AVNC2345 - Aviation Navigational Equipment Component Level Repair
Course Title

Aviation Navigational Equipment Component Level Repair

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AVNC2350 - Aviation Pulsed RF Equipment Component Level Repair
Course Title

Aviation Pulsed RF Equipment Component Level Repair

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AVNC2355 - Advanced Aviation Electronics Troubleshooting
Course Title

Advanced Aviation Electronics Troubleshooting

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

AVNC2357 - Aviation Communication Component Level Repair
Course Title

Aviation Communication Component Level Repair

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Baker/Pastry Chef

PSTR1301 - Fundamentals of Baking
Course Title

Fundamentals of Baking

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete at least 1 of the following:
        - CHEF1205 - Sanitation and Safety (2)
        - CHEF1305 - Sanitation and Safety (3)
    - Complete the following:
        - IFWA1401 - Food Preparation I (4)

PSTR2431 - Advanced Pastry Shop
<u>Course Title</u>

Advanced Pastry Shop

<u>Academic Level</u>

Undergraduate

<u>Description</u>

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.

<u>Lecture Hours</u>

2

<u>Lab Hours</u>

6

<u>Ext. Con. Hrs</u>

0

<u>Total Contact Hours</u>

128

<u>Credits</u>

4

<u>Semester Credit Hours</u>

4

<u>Prerequisites</u>

- Complete the following:
    - PSTR1301 - Fundamentals of Baking (3)

Banking / Finance

BNKG1002 - Principles of Banking
Course Title

Principles of Banking

Academic Level

Continuing Education

Description

Banking

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

BNKG1004 - Tellers
Course Title

Tellers

Academic Level

Continuing Education

Description

Banking

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

Biology

BIOL1106 - Biology for Science Majors Laboratory I (lab)

Course Title

Biology for Science Majors Laboratory I (lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL1107 - Biology for Science Majors II Lab

Course Title

Biology for Science Majors II Lab

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL1108 - Biology Non-Science Majors Laboratory I

Course Title

Biology Non-Science Majors Laboratory I

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL1109 - Biology for Non-Science Majors II Lab
Course Title

Biology for Non-Science Majors II Lab

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL1111 - General Botany Lab

Course Title

General Botany Lab

Academic Level

Undergraduate

Description

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.)

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL1113 - General Zoology (lab)

Course Title

General Zoology (lab)

Academic Level

Undergraduate

Description

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.)

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL1306 - Biology for Science Majors I (lecture)
Course Title

Biology for Science Majors I (lecture)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL1307 - Biology for Science Majors II
Course Title

Biology for Science Majors II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL1308 - Biology for Non-Science Majors I
Course Title

Biology for Non-Science Majors I

Academic Level

Undergraduate

Description

Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL1309 - Biology for Non-Science Majors II
Course Title

Biology for Non-Science Majors II

Academic Level

Undergraduate

Description

This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL1311 - General Botany

Course Title

General Botany

Academic Level

Undergraduate

Description

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.)

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL1313 - General Zoology (lecture)
Course Title

General Zoology (lecture)

Academic Level

Undergraduate

Description

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.)

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL1322 - Nutrition & Diet Therapy

Course Title

Nutrition & Diet Therapy

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL1406 - Biology for Science Majors I
Course Title

Biology for Science Majors I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL1407 - Biology for Science Majors II
Course Title

Biology for Science Majors II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL1408 - Biology for Non-Science Majors I
Course Title

Biology for Non-Science Majors I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL1409 - Biology for Non-Science Majors II
Course Title

Biology for Non-Science Majors II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL1411 - General Botany
Course Title

General Botany

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL2101 - Anatomy & Physiology I (lab)
Course Title

Anatomy & Physiology I (lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL2102 - Anatomy & Physiology II (lab)

Course Title

Anatomy & Physiology II (lab)

Academic Level

Undergraduate

Description

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).

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL2106 - Environmental Biology (lab)

Course Title

Environmental Biology (lab)

Academic Level

Undergraduate

Description

This laboratory-based course accompanies Biology 2306, Environmental Biology. Laboratory activities will reinforce principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL2116 - Genetics (lab)
Course Title

Genetics (lab)

Academic Level

Undergraduate

Description

Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL2120 - Microbiology for Non-Science Majors Laboratory (lab)
Course Title

Microbiology for Non-Science Majors Laboratory (lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL2121 - Microbiology for Science Majors Lab

Course Title

Microbiology for Science Majors Lab

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

BIOL2301 - Anatomy & Physiology I (lecture)
Course Title

Anatomy & Physiology I (lecture)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL2302 - Anatomy & Physiology II (lecture)

Course Title

Anatomy & Physiology II (lecture)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL2306 - Environmental Biology (lecture)
Course Title

Environmental Biology (lecture)

Academic Level

Undergraduate

Description

Principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL2316 - Genetics (lecture)
Course Title

Genetics (lecture)

Academic Level

Undergraduate

Description

Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL2320 - Microbiology for Non-Science Majors (lecture)

Course Title

Microbiology for Non-Science Majors (lecture)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL2321 - Microbiology for Science Majors
Course Title

Microbiology for Science Majors

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BIOL2401 - Anatomy & Physiology I (lecture + lab)
Course Title

Anatomy & Physiology I (lecture + lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL2402 - Anatomy & Physiology II (lecture + lab)
Course Title

Anatomy & Physiology II (lecture + lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL2404 - Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)
Course Title

Anatomy & Physiology (specialized, Single-Semester Course, Lec + Lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL2406 - Environmental Biology
Course Title

Environmental Biology

Academic Level

Undergraduate

Description

Human interaction with and effect upon plant and animal communities. Conservation, pollution, energy, and other contemporary ecological problems.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL2416 - Genetics
Course Title

Genetics

Academic Level

Undergraduate

Description

Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL2420 - Microbiology for Non-Science Majors (lecture + lab)
Course Title

Microbiology for Non-Science Majors (lecture + lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

BIOL2421 - Microbiology for Science Majors
Course Title

Microbiology for Science Majors

Academic Level

Undergraduate

Description

This lecture and lab course should combine all of the elements of BIOL 2321 (lecture) and BIOL 2121 (lab), including the learning outcomes listed for both courses.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Biomedical Engineering Tech

BIOM1101 - Biomedical Equipment Technology
Course Title

Biomedical Equipment Technology

Academic Level

Undergraduate

Description

Introduction to current biomedical job responsibilities, salaries, and classifications in the health care industry.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Credits

1

Semester Credit Hours

1

BIOM1201 - Biomedical Equipment Technology
Course Title

Biomedical Equipment Technology

Academic Level

Undergraduate

Description

Introduction to current biomedical job responsibilities, salaries, and classifications in the health care industry.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

BIOM1250 - Diagnostic Ultrasound Imaging System
Course Title

Diagnostic Ultrasound Imaging System

Academic Level

Undergraduate

Description

Diagnostic ultrasound imaging systems. Covers basic systems troubleshooting and problem solving.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

BIOM1270 - Shop Skills for Biomedical Equipment Technicians
Course Title

Shop Skills for Biomedical Equipment Technicians

Academic Level

Undergraduate

Description

Skill development in the common repair tools and repair techniques used by the Biomedical Equipment Technician in the healthcare.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

BIOM1291 - Special Topics in Biomedical Engineering-Related Technology/Technician

Course Title

Special Topics in Biomedical Engineering-Related Technology/Technician

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

BIOM1309 - Applied Biomedical Equipment Technology
Course Title

Applied Biomedical Equipment Technology

Academic Level

Undergraduate

Description

Introduction to biomedical instrumentation as related to anatomy and physiology. Includes medical devices for monitoring, diagnosis, and treatment of anatomical systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

BIOM1315 - Medical Equipment Networks
<u>**Course Title**</u>

Medical Equipment Networks

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Identification of basic principles of medical equipment networking. Hardware, software, and connectivity issues of medical equipment in healthcare facilities will be covered.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - BIOM1373 - Medical Software and Hardware (3)

BIOM1341 - Medical Circuits/Troubleshooting
Course Title

Medical Circuits/Troubleshooting

Academic Level

Undergraduate

Description

Development of skills in troubleshooting of medical electronic circuits and utilization of test equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - CETT1305 - AC Circuits (3)

BIOM1350 - Diagnostic Ultrasound Imaging System

Course Title

Diagnostic Ultrasound Imaging System

Academic Level

Undergraduate

Description

Diagnostic ultrasound imaging systems. Covers basic systems troubleshooting and problem solving.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - CETT1305 - AC Circuits (3)

BIOM1355 - Medical Electronic Applications
Course Title

Medical Electronic Applications

Academic Level

Undergraduate

Description

Presentation of sensors, transducers, and supporting circuits used in medical instrumentation devices.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - BIOM2301 - Safety in Health Care Facilities (3)

BIOM1373 - Medical Software and Hardware

Course Title

Medical Software and Hardware

Academic Level

Undergraduate

Description

Overview of common medical equipment software, hardware, and operating system maintenance.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

BIOM2215 - Physiological Instruments I
Course Title

Physiological Instruments I

Academic Level

Undergraduate

Description

Theory of operation, circuit analysis, and troubleshooting physiological instruments.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - BIOM2301 - Safety in Health Care Facilities (3)

BIOM2231 - Biomedical Clinical Instrumentation

Course Title

Biomedical Clinical Instrumentation

Academic Level

Undergraduate

Description

A study of theory, application, and principles of operation of instruments commonly used in a medical laboratory.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

BIOM2239 - Physiological Instruments II
Course Title

Physiological Instruments II

Academic Level

Undergraduate

Description

Graphic display recording devices. Includes defibrillators and multi-purpose diagnostic equipment.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - BIOM2301 - Safety in Health Care Facilities (3)

Corequisites

- Completed or concurrently enrolled in:
    - BIOM2215 - Physiological Instruments I (2)

BIOM2301 - Safety in Health Care Facilities

Course Title

Safety in Health Care Facilities

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - CETT1303 - DC Circuits (3)
  - CETT1305 - AC Circuits (3)

BIOM2311 - General Medical Equipment I
Course Title

General Medical Equipment I

Academic Level

Undergraduate

Description

Analysis of selected current paths from a larger schematic. Discussion of equipment and disassembly and reassembly of equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - CETT1305 - AC Circuits (3)

BIOM2319 - Fundamentals of X-Ray and Medical Imaging Systems
<u>**Course Title**</u>

Fundamentals of X-Ray and Medical Imaging Systems

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Radiation theory and safety hazards, fundamental circuits, and application of X-ray systems including circuit analysis and troubleshooting.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - CETT1305 - AC Circuits (3)

BIOM2333 - Digital Radiography

Course Title

Digital Radiography

Academic Level

Undergraduate

Description

General principles of digital radiography systems. Fundamentals of problem solving, troubleshooting, and analysis of image quality are emphasized.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - BIOM2319 - Fundamentals of X-Ray and Medical Imaging Systems (3)

BIOM2343 - General Medical Equipment II
Course Title

General Medical Equipment II

Academic Level

Undergraduate

Description

Theory and principles of operation of a variety of basic electro-mechanical equipment with emphasis on repair and service of actual medical equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - BIOM2301 - Safety in Health Care Facilities (3)

BIOM2345 - Advanced Imaging Systems

Course Title

Advanced Imaging Systems

Academic Level

Undergraduate

Description

Principles of operation and repair of computerized tomography (CT), magnetic resonance imaging (MRI), single photon emission computerized tomography, and other advanced imaging modalities.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - BIOM2319 - Fundamentals of X-Ray and Medical Imaging Systems (3)

BIOM2347 - RF/X-Ray System
Course Title

RF/X-Ray System

Academic Level

Undergraduate

Description

Principles of radiographic and fluoroscopic systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - BIOM2319 - Fundamentals of X-Ray and Medical Imaging Systems (3)

BIOM2377 - Medical Imaging Communication & Storage

Course Title

Medical Imaging Communication & Storage

Academic Level

Undergraduate

Description

A course in medical imaging communication and storage systems, including Digital Imaging Communication (DICOM) standards and Picture Archiving and Communication Systems (PACS). Image transfer via DICOM standard to PACS and printers, including modality (X-ray, Computerized Tomography,and Ultrasound) and PACS function, configuration,and troubleshooting, is covered.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

BIOM2388 - Internship - Biomedical Technology/Technician
Course Title

Internship - Biomedical Technology/Technician

Academic Level

Undergraduate

Description

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.

Additional Course Information

Students are required to complete 256 hours total in the semester. It is recommended that a student completes 16 hours a week for the 15 week semester. The position and company must be pre-approved before a student signs up for the coop class. Employer reviews and hour logs are required.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

256

Total Contact Hours

256

Credits

3

Semester Credit Hours

3

BIOM2389 - Internship-Biomedical Engineering Technician
Course Title

Internship-Biomedical Engineering Technician

Academic Level

Undergraduate

Description

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.

Additional Course Information

Students are required to complete 256 hours total in the semester. It is recommended that a student completes 16 hours a week for the 15 week semester. The position and company must be pre-approved before a student signs up for the coop class. Employer reviews and hour logs are required.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

16

Total Contact Hours

256

Credits

3

Semester Credit Hours

3

Bus Sys Netwrk, Unix

ITCC1314 - CCNA 1: Introduction to Networks
Course Title

CCNA 1: Introduction to Networks

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITCC1340 - CCNA 2: Routing and Switching Essentials
Course Title

CCNA 2: Routing and Switching Essentials

Academic Level

Undergraduate

Description

Describes the architecture, components, and basic operation of routers and explains the basic principles of routing and routing protocols. It also provides an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITCC1344 - CCNA 2: Switching, Routing, and Wireless Essentials
Course Title

CCNA 2: Switching, Routing, and Wireless Essentials

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITCC1314 - CCNA 1: Introduction to Networks (3)

ITCC1391 - Special Topics in System, Networking, and LAN/WAN Management "Wireless Infrastructure/IoT"
Course Title

Special Topics in System, Networking, and LAN/WAN Management "Wireless Infrastructure/IoT"

Academic Level

Undergraduate

Description

Mac OS X covers, but is not limited to, installation, automation, customizing the operating system, supporting applications, and setting up peripherals. This is an Apple Training Series which serves as both a self-paced learning tool and the official curriculum for the Mac OS X Support Essentials certification program.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITCC2312 - CCNA 3: Scaling Networks
Course Title

CCNA 3: Scaling Networks

Academic Level

Undergraduate

Description

CCNA R&S: Scaling Networks (ScaN) covers the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches using advanced protocols.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITCC2313 - CCNA 4: Connecting Networks
Course Title

CCNA 4: Connecting Networks

Academic Level

Undergraduate

Description

WAN technologies and network services required by converged applications in a complex network; enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITCC2320 - CCNA 3: Enterprise Networking, Security , and Automation
Course Title

CCNA 3: Enterprise Networking, Security , and Automation

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITCC1344 - CCNA 2: Switching, Routing, and Wireless Essentials (3)

ITCC2341 - CCNA Security
Course Title

CCNA Security

Academic Level

Undergraduate

Description

Overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies, products, and solutions; and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITCC2343 - Network Security
Course Title

Network Security

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Business

BMGT1022 - Communication Skills for Managers
Course Title

Communication Skills for Managers

Academic Level

Continuing Education

Description

Basic theory of communication skills as appropriate and applicable to individuals or groups in the business environment. Includes listening, speaking, writing, and communicating non-verbally.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

BMGT1025 - Office Management
Course Title

Office Management

Academic Level

Continuing Education

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

43

Semester Credit Hours

0

BMGT1028 - Core Negotiating Skills
Course Title

Core Negotiating Skills

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

8

Semester Credit Hours

0

BMGT1036 - Purchasing Management-Introduction
Course Title

Purchasing Management-Introduction

Academic Level

Continuing Education

Description

Materials management concepts, planning, pricing and negotiations, product commodity purchase analysis, measurement, appraisal, and legal and ethical considerations.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

24

Semester Credit Hours

0

BMGT1053 - Ethics Training
Course Title

Ethics Training

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

BMGT1097 - Sp Topic Sales, Distribution, Marketing
Course Title

Sp Topic Sales, Distribution, Marketing

Academic Level

Continuing Education

Description

Marketing

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

BMGT1098 - Special Topics in Selling Skills and Sal
Course Title

Special Topics in Selling Skills and Sal

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

7

Semester Credit Hours

0

BMGT1305 - Communications in Management
Course Title

Communications in Management

Academic Level

Undergraduate

Description

Basic theory and processes of communication skills necessary for the management of an organization's workforce.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

BMGT1306 - Facilities Management

Course Title

Facilities Management

Academic Level

Undergraduate

Description

General management and supervision of public buildings, business and industrial facilities, and other complexes requiring supervision and control. Includes fire alarm maintenance, plant maintenance, occupational safety, OSHA rules and regulations, management of maintenance supervisors, and hazardous materials awareness.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

BMGT1309 - Information and Project Management
Course Title

Information and Project Management

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

BMGT1325 - Office Management
Course Title

Office Management

Academic Level

Undergraduate

Description

Systems, procedures, and practices related to organizing and planning office work, supervising employee performance, and exercising leadership skills.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

BMGT1327 - Principles of Management
Course Title

Principles of Management

Academic Level

Undergraduate

Description

Concepts, terminology, principles, theories, and issues in the field of management.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

BMGT1331 - Production and Operations Management
Course Title

Production and Operations Management

Academic Level

Undergraduate

Description

Fundamentals of techniques used in the practice of production and operations management. Includes location, design, and resource allocation.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

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BMGT2331 - Principles of Quality Managment
Course Title

Principles of Quality Managment

Academic Level

Undergraduate

Description

Includes planning and implementing quality programs in an organization and analyzing cost/benefit of quality. Also covers the impact of employee empowerment.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

BMGT2341 - Strategic Management
Course Title

Strategic Management

Academic Level

Undergraduate

Description

Strategic management process, including analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

BMGT2347 - Critical Thinking and Problem Solving
Course Title

Critical Thinking and Problem Solving

Academic Level

Undergraduate

Description

Interpreting data for problem solving and recommending corrective action. Emphasis on a structured approach to critical thinking and problem solving in a team environment.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

POFT1002 - Mastering Public Speaking
Course Title

Mastering Public Speaking

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

2

Total Contact Hours

24

Semester Credit Hours

0

POFT1006 - Employment Success
Course Title

Employment Success

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

POFT1013 - Professional Development for Office Pers
Course Title

Professional Development for Office Pers

Academic Level

Continuing Education

Description

Preparation for the work force including ethics, interpersonal relations, professional attire, and career advancement.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

POFT1020 - Communication Skills for Busin
Course Title

Communication Skills for Busin

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

POFT1022 - Introduction to General Office Skills
Course Title

Introduction to General Office Skills

Academic Level

Continuing Education

Description

List basic office skills; and define business communication skills

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

POFT1120 - Job Search Skills
Course Title

Job Search Skills

Academic Level

Undergraduate

Description

Skills to seek and obtain employment in business and industry.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Credits

1

Semester Credit Hours

1

POFT1301 - Business English
Course Title

Business English

Academic Level

Undergraduate

Description

Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

POFT1319 - Records & Information Management I

Course Title

Records & Information Management I

Academic Level

Undergraduate

Description

Introduction to basic records information management systems including manual and electronic filing.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

POFT2012 - Business Correspondence & Communication

Course Title

Business Correspondence & Communication

Academic Level

Continuing Education

Description

Development of writing and presentation skills to produce effective business communications.

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

POFT2312 - Business Correspondence & Communication

Course Title

Business Correspondence & Communication

Academic Level

Undergraduate

Description

Development of writing and presentation skills to produce effective business communications.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

POFT2380 - Cooperative Education - Administrative Assistant and Secretarial Science, General
Course Title

Cooperative Education - Administrative Assistant and Secretarial Science, General

Academic Level

Undergraduate

Description

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.

16 per week/240 Total

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

19

Total Contact Hours

320

Credits

3

Semester Credit Hours

3

Business Management

BUSG1005 - Intro to Customer Service
Course Title

Intro to Customer Service

Academic Level

Continuing Education

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

12

Semester Credit Hours

0

BUSG1012 - Professionalism in the Workplace
Course Title

Professionalism in the Workplace

Academic Level

Continuing Education

Description

Develop entry-level skills for the workforce. Includes professionalism, interpersonal skills, communication, workplace civility, and employability skills.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

20

Semester Credit Hours

0

BUSG1029 - Financial Planning Skills
Course Title

Financial Planning Skills

Academic Level

Continuing Education

Description

Integration of non-insurance financial products/services with life insurance as part of the financial planning process. Includes financial plans, financial statements, IRS Form 1040, stocks, bonds, and limited partnerships.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

7

Semester Credit Hours

0

BUSG1301 - Introduction to Business
Course Title

Introduction to Business

Academic Level

Undergraduate

Description

Fundamental business principles including structure, functions, resources, and operational processes.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

BUSG1302 - E-Business Management
Course Title

E-Business Management

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

BUSG1304 - Financial Literacy

Course Title

Financial Literacy

Academic Level

Undergraduate

Description

A study of the financial principles when managing financial affairs. Includes topics such as budgeting, retirement, property ownership, savings, and investment planning. null End of Course Outcomes Identify the concepts associated with the time value of money; identify the differences among various savings and investment programs and classes of securities; identify the options for insurance; describe retirement and estate planning techniques; explain owning versus renting real property; and describe consumer protection legislation.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

BUSG1315 - Small Business Operations
Course Title

Small Business Operations

Academic Level

Undergraduate

Description

Operating a small business. Emphasizes management functions including planning, leading, organizing, staffing, and controlling operations.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

BUSG2301 - Business Law
Course Title

Business Law

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Cartography, GIS & GPS

CRTG1301 - Cartography and Geography in Geographical Information Systems (GIS) and Global Positioning Systems
Course Title

Cartography and Geography in Geographical Information Systems (GIS) and Global Positioning Systems

Academic Level

Undergraduate

Description

Introduction to the principles of cartography and geography. Emphasis on global reference systems and the use of satellites for measurements and navigation.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CRTG1311 - Introduction to Geographic Information Systems (GIS)
Course Title

Introduction to Geographic Information Systems (GIS)

Academic Level

Undergraduate

Description

Introduction to basic concepts of vector GIS using several industry specific software programs including nomenclature of cartography and geography.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CRTG2320 - Intermediate Geographic Information Systems (GIS)
Course Title

Intermediate Geographic Information Systems (GIS)

Academic Level

Undergraduate

Description

This course focuses on the study of spatial data structures and the display, manipulation, and analysis of geographic information. Students will study the technical aspects involved in spatial data handling, analysis and modeling. Instruction will include theories and procedures associated with the implementation and management of GIS projects. A variety of GIS software packages will be used in the laboratory.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Chemistry

CHEM1105 - Introductory Chemistry Laboratory I (lab)
Course Title

Introductory Chemistry Laboratory I (lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

CHEM1107 - Introductory Chemistry Laboratory II
Course Title

Introductory Chemistry Laboratory II

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

CHEM1111 - General Chemistry I (lab)
Course Title

General Chemistry I (lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

Corequisites

- Completed or concurrently enrolled in:
    - CHEM1311 - General Chemistry I (lecture) (3)

CHEM1112 - General Chemistry II (lab)
Course Title

General Chemistry II (lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

Corequisites

- Completed or concurrently enrolled in:
  - CHEM1312 - General Chemistry II (lecture) (3)

CHEM1305 - Introductory Chemistry I (lecture)
Course Title

Introductory Chemistry I (lecture)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

CHEM1307 - Introductory Chemistry II
Course Title

Introductory Chemistry II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

CHEM1311 - General Chemistry I (lecture)
__Course Title__

General Chemistry I (lecture)

__Academic Level__

Undergraduate

__Description__

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.

__Lecture Hours__

3

__Lab Hours__

0

__Ext. Con. Hrs__

0

__Total Contact Hours__

48

__Credits__

3

__Semester Credit Hours__

3

__Prerequisites__

- Complete the following:
    - MATH1314 - College Algebra (3 SCH version) (3)

__Corequisites__

- Completed or concurrently enrolled in:
    - CHEM1111 - General Chemistry I (lab) (1)

CHEM1312 - General Chemistry II (lecture)
Course Title

General Chemistry II (lecture)

Academic Level

Undergraduate

Description

Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - CHEM1111 - General Chemistry I (lab) (1)
  - CHEM1311 - General Chemistry I (lecture) (3)

Corequisites

- Completed or concurrently enrolled in:
  - CHEM1112 - General Chemistry II (lab) (1)

CHEM1405 - Introductory Chemistry I
Course Title

Introductory Chemistry I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

CHEM1406 - Introductory Chemistry I
Course Title

Introductory Chemistry I

Academic Level

Undergraduate

Description

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

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

CHEM1411 - General Chemistry I
Course Title

General Chemistry I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

CHEM1412 - General Chemistry II
Course Title

General Chemistry II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

CHEM1414 - General Chemistry II

Course Title

General Chemistry II

Academic Level

Undergraduate

Description

General principles, problems, fundamental laws, and theories. Course content provides a foundation for work in advanced chemistry and related sciences.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

CHEM2123 - Organic Chemistry I Lab
Course Title

Organic Chemistry I Lab

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

CHEM2125 - Organic Chemistry II Lab

Course Title

Organic Chemistry II Lab

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

CHEM2323 - Organic Chemistry I
Course Title

Organic Chemistry I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

CHEM2325 - Organic Chemistry II
Course Title

Organic Chemistry II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Chemistry, Technical

CTEC2386 - Internship - Chemical Technology
Course Title

Internship - Chemical Technology

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

18

Total Contact Hours

288

Credits

3

Semester Credit Hours

3

CTEC2387 - Internship - Chemical Technology
Course Title

Internship - Chemical Technology

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

18

Total Contact Hours

288

Credits

3

Semester Credit Hours

3

Child Care Guida. Wkr/Mgr/Gen

CDEC1012 - Child Guidance and Discipline
Course Title

Child Guidance and Discipline

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CDEC1318 - Wellness of the Young Child
Course Title

Wellness of the Young Child

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

CDEC1321 - The Infant and Toddler
Course Title

The Infant and Toddler

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

CDEC1356 - Emergent Literacy for Early Childhood
Course Title

Emergent Literacy for Early Childhood

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CDEC1359 - Children with Special Needs
Course Title

Children with Special Needs

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CDEC2340 - Instructional Techniques for Children with Special Needs
Course Title

Instructional Techniques for Children with Special Needs

Academic Level

Undergraduate

Description

Exploration of development and implementation of curriculum for children with special needs.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

College Success

TSTC1101 - College Success
Course Title

College Success

Academic Level

Undergraduate

Description

Essential elements of student learning success at TSTC.

Lecture Hours

1

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

1

Semester Credit Hours

1

TSTC1102 - Professional Skills & Success
Course Title

Professional Skills & Success

Academic Level

Undergraduate

Description

Preparation for career success including professional and employability skills, interpersonal skills, and communication.

Lecture Hours

1

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

1

Semester Credit Hours

1

Commercial Photography

PHTC1004 - Introductory Professional Photography
Course Title

Introductory Professional Photography

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

PHTC1011 - Fundamentals of Photography
Course Title

Fundamentals of Photography

Academic Level

Continuing Education

Description

An introduction to camera operation and image production, composition, flash usage, and use of exposure meters and filters.

Lecture Hours

10

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

160

Semester Credit Hours

0

PHTC1311 - Fundamentals of Photography

Course Title

Fundamentals of Photography

Academic Level

Undergraduate

Description

An introduction to camera operation and image production, composition, flash usage, and use of exposure meters and filters.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ARTC1302 - Digital Imaging I (3)

PHTC1340 - Photographic Retouching I
Course Title

Photographic Retouching I

Academic Level

Undergraduate

Description

An overview of retouching techniques to enhance photographic media. Includes restoration and coloration.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PHTC1343 - Expressive Photography
Course Title

Expressive Photography

Academic Level

Undergraduate

Description

A study of formal, professional, and individual uses of photography by applying photographic technology to personalized needs. Emphasis on creative visual thinking and problem solving and the exploration of personal vision.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PHTC1345 - Illustrative Photography I

Course Title

Illustrative Photography I

Academic Level

Undergraduate

Description

Instruction in the technical aspects involved in commercial photography. Topics include lighting equipment, techniques of production photography, reproduction principles, illustrative techniques, and advertising.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PHTC1353 - Portraiture I

Course Title

Portraiture I

Academic Level

Undergraduate

Description

Skill development in the photographic principles of portrait lighting, posing, and subject rapport.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PHTC1371 - Commercial Photography

Course Title

Commercial Photography

Academic Level

Undergraduate

Description

The study and utilization of professional commercial photography techniques, including the use of industry standard software, professional lighting techniques, and the emulation of an industry environment utilizing sample employers and clients.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PHTC1391 - Special Topics in Commercial Photography
Course Title

Special Topics in Commercial Photography

Academic Level

Undergraduate

Description

The study and utilization of professional commercial photography techniques, including the use of industry standard software, professional lighting techniques, and the emulation of an industry environment utilizing sample employers and clients.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PHTC2340 - Photographic Studio Management
Course Title

Photographic Studio Management

Academic Level

Undergraduate

Description

In-depth study of photography business management, pricing, market analysis, promotion, networking, job acquisition, and photographic equipment analysis.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Commercial Vehicle Operation

CVOP1001 - Commercial Drivers License Dri
Course Title

Commercial Drivers License Dri

Academic Level

Continuing Education

Description

Overview of the State of Texas Class A Commercial Drivers 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.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

CVOP1005 - Commercial Drivers License Written Skill
Course Title

Commercial Drivers License Written Skill

Academic Level

Continuing Education

Description

Overview of the State of Texas Class A Commercial Drivers License written test. In-depth coverage of air brakes, combination vehicle, doubles and triples, tankers, and hazardous materials. Includes preparation for mastery of the Commercial Drivers License written examination.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CVOP1011 - Driving Skills for Transporting Passengers
Course Title

Driving Skills for Transporting Passengers

Academic Level

Continuing Education

Description

Overview of the State of Texas Class A or Class B Commercial Drivers License driving test. In-depth coverage of the in-cab air brake test, proper shifting, right and left hand turns, movement in traffic, parking of a vehicle designed to transport passengers, highway and city driving, and backward movement and control.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CVOP1013 - Professional Truck Driver I
Course Title

Professional Truck Driver I

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CVOP1040 - Professional Truck Driver II
Course Title

Professional Truck Driver II

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CVOP1091 - Special Topics in Truck, Bus and Other C
Course Title

Special Topics in Truck, Bus and Other C

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CVOP1091 - St Truck,bus/Other Comm. Vehicle Operat

Course Title

St Truck,bus/Other Comm. Vehicle Operat

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

CVOP1301 - Commercial Drivers License Driving Skills

Course Title

Commercial Drivers License Driving Skills

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

CVOP1305 - Commercial Drivers License Written Skills
Course Title

Commercial Drivers License Written Skills

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

CVOP2005 - Fundamental Driving Skills
Course Title

Fundamental Driving Skills

Academic Level

Continuing Education

Description

Operation of a tractor-trailer combination. Emphasis on the safe maneuvering and control of the tractor-trailer in numerous traffic situations and sharing the highway with other vehicles.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

CVOP2037 - Advanced Driving Skills II
Course Title

Advanced Driving Skills II

Academic Level

Continuing Education

Description

Continuation of tractor-trailer operation in city and highway conditions. Emphasis on practical applications of space management techniques, improved methods for control in difficult traffic situations, and effective operation in various conditions.

Lecture Hours

5

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

80

Semester Credit Hours

0

Communication System Installer

CSIR1002 - Telecomm. Integrated Systems
Course Title

Telecomm. Integrated Systems

Academic Level

Continuing Education

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

CSIR1048 - Applied General Communication Circuits
Course Title

Applied General Communication Circuits

Academic Level

Continuing Education

Description

The basic theory of operation and troubleshooting of communication circuits used in radio communication electronics systems.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

CSIR1052 - Applied Industry Certifications
Course Title

Applied Industry Certifications

Academic Level

Continuing Education

Description

Preparation for the certifications required by industry.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

7

Semester Credit Hours

0

CSIR1055 - Industry Certifications

Course Title

Industry Certifications

Academic Level

Continuing Education

Description

Preparation for the Certifications Required by Industry.

Lecture Hours

1

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

CSIR1059 - Digital Data Communication

Course Title

Digital Data Communication

Academic Level

Continuing Education

Description

Introduction to the theory and troubleshooting skills needed in the digital data communication field.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

CSIR1355 - Industry Certifications
Course Title

Industry Certifications

Academic Level

Undergraduate

Description

Preparation for the certifications required by industry.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - IEIR1371 - Electrical Principles and Applications (3)
    - CETT1302 - Electricity Principles (3)

CSIR2051 - Fiber Optic Communication System Install
Course Title

Fiber Optic Communication System Install

Academic Level

Continuing Education

Description

Focus on installation, and repair of fiber optic communication systems including networks and peripherals. Topics include fiber optic technology, state-of-the-art networking systems, installation/repair of fiber optic systems, and testing equipment.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

CSIR2301 - Communication Electronics Components
Course Title

Communication Electronics Components

Academic Level

Undergraduate

Description

Introduction to the theory of vacuum tubes and solid-state devices.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
  - IEIR1371 - Electrical Principles and Applications (3)
  - CETT1302 - Electricity Principles (3)

Community Health

CHLT1009 - Community Ethics
Course Title

Community Ethics

Academic Level

Continuing Education

Description

Discussion of the role of ethics as it pertains to health care and community settings including ethical decision-making.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

Computer

CETT1000 - Alternating Current (ac) Circuits
Course Title

Alternating Current (ac) Circuits

Academic Level

Continuing Education

Description

Fundamentals of alternating current.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

20

Semester Credit Hours

0

CETT1001 - Direct Current (dc) Circuits
Course Title

Direct Current (dc) Circuits

Academic Level

Continuing Education

Description

Fundamentals of direct current (DC).

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

20

Semester Credit Hours

0

CETT1003 - Dc Circuits
Course Title

Dc Circuits

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CETT1029 - Solid State Devices
Course Title

Solid State Devices

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

66

Semester Credit Hours

0

CETT1091 - Special Topics in Computer Engineering T
Course Title

Special Topics in Computer Engineering T

Academic Level

Continuing Education

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

CETT1302 - Electricity Principles
Course Title

Electricity Principles

Academic Level

Undergraduate

Description

Principles of electricity including proper use of test equipment, A/C and D/C circuits, and component theory and operations.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CETT1303 - DC Circuits
Course Title

DC Circuits

Academic Level

Undergraduate

Description

A study of the fundamentals of direct current including Ohm's law, Kirchhoff's laws and circuit analysis techniques.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CETT1305 - AC Circuits
Course Title

AC Circuits

Academic Level

Undergraduate

Description

A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1303 - DC Circuits (3)

CETT1325 - Digital Fundamentals

Course Title

Digital Fundamentals

Academic Level

Undergraduate

Description

An entry level course in digital electronics to include numbering systems, logic gates, Boolean algebra, and combinational logic.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete 1 of the following
  - Complete the following:
    - CETT1302 - Electricity Principles (3)
  - Completed or concurrently enrolled in:
    - CETT1305 - AC Circuits (3)

CETT1329 - Solid State Devices

Course Title

Solid State Devices

Academic Level

Undergraduate

Description

A study of diodes, transistor characteristics and other semiconductor devices, including analysis of static and dynamic characteristics, biasing techniques, and thermal considerations.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete the following:
        - CETT1305 - AC Circuits (3)
    - Complete at least 1 of the following:
        - IEIR1371 - Electrical Principles and Applications (3)
        - IEIR1304 - Alternating Current Circuits for Industrial Applications (3)

CETT1341 - Solid State Circuits
Course Title

Solid State Circuits

Academic Level

Undergraduate

Description

A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Computer & Information Science

ITSC1004 - Software App Skills Upgrade
Course Title

Software App Skills Upgrade

Academic Level

Continuing Education

Description

An introduction to selected application software. null October 31 2019 2:39 PM Garcia, Juan

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

24

Semester Credit Hours

0

ITSC1007 - Unix Operating System I
Course Title

Unix Operating System I

Academic Level

Continuing Education

Description

A study of the UNIX operating system including multi-user concepts, terminal emulation, use of system editor, basic UNIX commands, and writing script files. Topics include introductory systems management concepts.

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

ITSC1008 - Help Desk Support for Operating Systems
Course Title

Help Desk Support for Operating Systems

Academic Level

Continuing Education

Description

Fundamental operating system customer support.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

8

Semester Credit Hours

0

ITSC1018 - Intro to Project Manag Software
Course Title

Intro to Project Manag Software

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ITSC1022 - Basic Computers
Course Title

Basic Computers

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ITSC1025 - Personal Computer Hardware
Course Title

Personal Computer Hardware

Academic Level

Continuing Education

Description

A study of current personal computer hardware including personal computer assembly and upgrading, setup and configuration, and troubleshooting.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ITSC1301 - Introduction to Computers
Course Title

Introduction to Computers

Academic Level

Undergraduate

Description

Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSC1309 - Integrated Software Applications I
Course Title

Integrated Software Applications I

Academic Level

Undergraduate

Description

Introduction to business productivity software suites using word processing, spreadsheets, databases, and/or presentation software.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSC1315 - Project Management Software
Course Title

Project Management Software

Academic Level

Undergraduate

Description

Use of project management software for developing a project plan including timelines, milestones, scheduling, life cycle phases, management frameworks, skills, processes, and tools.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSC1316 - Linux Installation and Configuration
Course Title

Linux Installation and Configuration

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - ITNW1358 - Network+ (3)
    - ITCC1314 - CCNA 1: Introduction to Networks (3)

ITSC1325 - Personal Computer Hardware
Course Title

Personal Computer Hardware

Academic Level

Undergraduate

Description

Current personal computer hardware including assembly, upgrading, setup, configuration, and troubleshooting.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSC1342 - Shell Programming
Course Title

Shell Programming

Academic Level

Undergraduate

Description

Reading, writing, and debugging shell scripts. Development of scripts to automate frequently executed sequences of commands. Covers conditional logic, user interaction, loops, and menus to enhance the productivity and effectiveness of the user. Intended for programmers who are familiar with operating environments and reading and writing various shell scripts.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSC2035 - Application Software Problem Solving
Course Title

Application Software Problem Solving

Academic Level

Continuing Education

Description

Utilization of appropriate application software to solve advanced problems and generate customized solutions.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

ITSC2321 - Integrated Software App II
Course Title

Integrated Software App II

Academic Level

Undergraduate

Description

Intermediate study of computer applications from business productivity software suites. Instruction in embedding data and linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSC2370 - Final Project-Systems Administration

Course Title

Final Project-Systems Administration

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSC2380 - Cooperative Education - Computer and Information Sciences, General

Course Title

Cooperative Education - Computer and Information Sciences, General

Academic Level

Undergraduate

Description

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. This Course May Be Repeated If Topics and Learning Outcomes Vary.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

19

Total Contact Hours

320

Credits

3

Semester Credit Hours

3

ITSC2386 - Internship - Computer and Information Sciences, General

Course Title

Internship - Computer and Information Sciences, General

Academic Level

Undergraduate

Description

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.

Additional Course Information

Students are required to complete 144 total contact hours in the semester. The student should complete 9 external contact hours per week.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

9

Total Contact Hours

144

Credits

3

Semester Credit Hours

3

ITSC2425 - Advanced Linux
Course Title

Advanced Linux

Academic Level

Undergraduate

Description

Provides instruction in advance open-source Linux operating system. Develops directory services for clients, support users remotely, and install and configure network services.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - ITSC1316 - Linux Installation and Configuration (3)

Computer/Information Sciences

INEW2330 - Comprehensive Software Project: Planning and Design

Course Title

Comprehensive Software Project: Planning and Design

Academic Level

Undergraduate

Description

A comprehensive application of skills learned in previous courses in a simulated workplace. Covers the development, testing, and documenting of a complete software and/or hardware solution. This course may be used as a capstone course for a certificate or degree.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete the following:
        - ITSE2333 - Implementing a Database on Microsoft SQL Server (3)
    - Complete at least 1 of the following:
        - ITSE2353 - Advanced C# Programming (3)
        - ITSE2373 - Advanced Python (3)

INEW2332 - Comprehensive Software Project: Coding, Testing, and Implementation
Course Title

Comprehensive Software Project: Coding, Testing, and Implementation

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
  - Complete the following:
    - ITSE2333 - Implementing a Database on Microsoft SQL Server (3)
  - Complete at least 1 of the following:
    - ITSE2353 - Advanced C# Programming (3)
    - ITSE2373 - Advanced Python (3)

INEW2334 - Advanced Web Programming
Course Title

Advanced Web Programming

Academic Level

Undergraduate

Description

Web programming using industry-standard languages and data stores.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSE2313 - Web Authoring (3)
    - IMED2309 - Internet Commerce (3)
    - IMED2315 - Web Design II (3)

INEW2338 - Advanced Java Programming
Course Title

Advanced Java Programming

Academic Level

Undergraduate

Description

A continuation of Java programming techniques such as servlets, and advanced graphical functions.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSE2317 - Java Programming (3)

Construction

CRPT1023 - Floor System
Course Title

Floor System

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CRPT1029 - Introduction to Carpentry
Course Title

Introduction to Carpentry

Academic Level

Continuing Education

Description

An introduction to the carpentry trade including safety, tools, equipment, terminology, and methods.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CRPT1311 - Roof Systems
Course Title

Roof Systems

Academic Level

Undergraduate

Description

Principles of design and construction of a roof system incorporating gable, hip, valley and intersections. Emphasis given to safe work practices and the use, and maintenance of tools and equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CRPT1315 - Wall Systems
Course Title

Wall Systems

Academic Level

Undergraduate

Description

Identification of components; construction of wall systems; safe work practices; and the use, and maintenance of tools and equipment. null null null

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CRPT1341 - Exterior Finish Systems
Course Title

Exterior Finish Systems

Academic Level

Undergraduate

Description

Installation of exterior finish systems and components including the placement and installation of cornice, windows, doors, siding, and flashing. Emphasis on safe work practices and the use, and maintenance of tools and equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CRPT1371 - Basic Framing

Course Title

Basic Framing

Academic Level

Undergraduate

Description

Knowledge and skills required to erect wood and light metal frame structures with emphasis on layout, sequencing, strength of materials and construction; of floors, walls (interior and exterior), and roofs. Includes safety procedures for using hand tools, power tools, equipment and structural materials.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Construction/Building Inspect

CBFM1303 - Boiler Maintenance
Course Title

Boiler Maintenance

Academic Level

Undergraduate

Description

Boiler maintenance procedures with emphasis on the various components associated with boilers.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

CBFM2013 - Building Maintenance Managemen
Course Title

Building Maintenance Managemen

Academic Level

Continuing Education

Description

Management and controls required to direct operations of the engineering and maintenance department. Includes planning and scheduling, delegating responsibilities, purchasing, problem-solving, management by objectives, supervisory training, in-service training, and budget preparation.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

Criminal Justice

CJCR2002 - Police Suicide, Detection & Intervention
Course Title

Police Suicide, Detection & Intervention

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CJSA1325 - Criminology
Course Title

Criminology

Academic Level

Undergraduate

Description

Current theories and empirical research pertaining to crime and criminal behavior and its causes, methods of prevention, systems of punishment, and rehabilitation.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

CJSA1327 - Fundamentals of Criminal Law
Course Title

Fundamentals of Criminal Law

Academic Level

Undergraduate

Description

A study of the nature of criminal law; philosophical and historical development; major definitions and concepts; classification of crime; elements of crimes and penalties using Texas statutes as illustrations; criminal responsibility.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

CJSA1393 - Special Topics in Criminal Justice Studies
Course Title

Special Topics in Criminal Justice Studies

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CJSA2000 - Professional Development: Criminal Justi
__Course Title__

Professional Development: Criminal Justi

__Academic Level__

Continuing Education

__Description__

Intensive training in an identified area(s) to meet continuing education and/or review/update requirements associated with professional licensure or certification. This course was designed to be repeated multiple times to improve student proficiency.

__Lecture Hours__

0

__Lab Hours__

0

__Ext. Con. Hrs__

0

__Total Contact Hours__

7

__Semester Credit Hours__

0

Culinary Arts/Chef Training

CHEF1205 - Sanitation and Safety
Course Title

Sanitation and Safety

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

CHEF1305 - Sanitation and Safety
Course Title

Sanitation and Safety

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

CHEF1340 - Meat Preparation and Cooking
Course Title

Meat Preparation and Cooking

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - IFWA1427 - Food Preparation II (4)

CHEF1413 - Food Service Operations/Systems
Course Title

Food Service Operations/Systems

Academic Level

Undergraduate

Description

An overview of the information needs of food and lodging properties. Emphasis on front, back, and material management utilizing computer systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

CHEF1441 - American Regional Cuisine

Course Title

American Regional Cuisine

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - IFWA1427 - Food Preparation II (4)
    - PSTR2431 - Advanced Pastry Shop (4)

CHEF1445 - International Cuisine
Course Title

International Cuisine

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - IFWA1427 - Food Preparation II (4)
    - PSTR2431 - Advanced Pastry Shop (4)

Data Processing

ITSW1002 - Microsoft Excel
Course Title

Microsoft Excel

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ITSW1021 - Intro to Integrated Productivity Program
Course Title

Intro to Integrated Productivity Program

Academic Level

Continuing Education

Description

Integration of word processing, database, and spreadsheets. Includes formatting, file functions, printing, screen formats, data minupulation, record selection, indexing, sorting, moving, and copying.

Lecture Hours

1

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

24

Semester Credit Hours

0

ITSW1030 - Ms Outlook
Course Title

Ms Outlook

Academic Level

Continuing Education

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

12

Semester Credit Hours

0

ITSW1037 - Introduction to Presentation Software
Course Title

Introduction to Presentation Software

Academic Level

Continuing Education

Description

Introduction to computerized presentation graphics that leads the participant through planning, design, and production of business graphics and charts. Presentation files are produced utilizing multimedia software.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

7

Semester Credit Hours

0

ITSW1307 - Introduction to Database
Course Title

Introduction to Database

Academic Level

Undergraduate

Description

Introduction to database theory and the practical applications of a database.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSW1310 - Introduction to Presentation Graphics Software
Course Title

Introduction to Presentation Graphics Software

Academic Level

Undergraduate

Description

Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSW2029 - Intermediate Spreadsheets II
Course Title

Intermediate Spreadsheets II

Academic Level

Continuing Education

Description

Techniques for customizing the spreadsheet environment by analyzing workbook data and creating worksheets and charts.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

ITSW2056 - Microsoft Powerpoint
Course Title

Microsoft Powerpoint

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

Dental Hygiene

DHYG1002 - Nitrous Oxide Sedation Monitoring
Course Title

Nitrous Oxide Sedation Monitoring

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

DHYG1207 - General and Dental Nutrition
Course Title

General and Dental Nutrition

Academic Level

Undergraduate

Description

General nutrition and nutritional biochemistry emphasizing the effect nutrition has on oral health.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

DHYG1211 - Periodontology
Course Title

Periodontology

Academic Level

Undergraduate

Description

Normal and diseased periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

DHYG1215 - Community Dentistry
Course Title

Community Dentistry

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

DHYG1219 - Dental Materials
Course Title

Dental Materials

Academic Level

Undergraduate

Description

Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

DHYG1227 - Preventive Dental Hygiene Care
Course Title

Preventive Dental Hygiene Care

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

DHYG1235 - Pharmacology for the Dental Hygienist
Course Title

Pharmacology for the Dental Hygienist

Academic Level

Undergraduate

Description

Classification of drugs and their uses, actions, interactions, side effects, contraindications, with emphasis on dental applications.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

DHYG1239 - General and Oral Pathology
Course Title

General and Oral Pathology

Academic Level

Undergraduate

Description

Disturbances in human body development, diseases of the body, and disease prevention measures with emphasis on the oral cavity and associated structures.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

DHYG1260 - Clinical - Dental Hygiene/Hygienist

Course Title

Clinical - Dental Hygiene/Hygienist

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

10

Total Contact Hours

160

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - DHYG1331 - Preclinical Dental Hygiene (3)

DHYG1261 - Clinical - Dental Hygiene/Hygienist

Course Title

Clinical - Dental Hygiene/Hygienist

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

11

Total Contact Hours

176

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - DHYG1260 - Clinical - Dental Hygiene/Hygienist (2)

DHYG1301 - Orofacial Anatomy, Histology & Embryology
Course Title

Orofacial Anatomy, Histology & Embryology

Academic Level

Undergraduate

Description

The histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DHYG1304 - Dental Radiology
Course Title

Dental Radiology

Academic Level

Undergraduate

Description

Fundamentals of oral radiography, including techniques, interpretation, quality assurance, and ethics.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

DHYG1319 - Dental Materials
Course Title

Dental Materials

Academic Level

Undergraduate

Description

Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

DHYG1331 - Preclinical Dental Hygiene
Course Title

Preclinical Dental Hygiene

Academic Level

Undergraduate

Description

Foundational knowledge for performing clinical skills and management of medical emergencies for patients with emphasis on procedures and rationale for performing dental hygiene care. Introduction to ethical principles as they apply to dental hygiene care.

Lecture Hours

1

Lab Hours

7

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

3

Semester Credit Hours

3

DHYG2153 - Dental Hygiene Practice
Course Title

Dental Hygiene Practice

Academic Level

Undergraduate

Description

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, preparation for employment, and introduction to the dental team.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Credits

1

Semester Credit Hours

1

DHYG2201 - Dental Hygiene Care I
Course Title

Dental Hygiene Care I

Academic Level

Undergraduate

Description

Dental hygiene care for the medically or dentally compromised patient including supportive treatment options.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

DHYG2360 - Clinical - Dental Hygiene/Hygienist

Course Title

Clinical - Dental Hygiene/Hygienist

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

14

Total Contact Hours

224

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DHYG1261 - Clinical - Dental Hygiene/Hygienist (2)

DHYG2361 - Clinical - Dental Hygiene/Hygienist

Course Title

Clinical - Dental Hygiene/Hygienist

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

14

Total Contact Hours

224

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DHYG2360 - Clinical - Dental Hygiene/Hygienist (3)

Developmental Math

DMTH0009 - Supplemental Math Lab I
Course Title

Supplemental Math Lab I

Academic Level

Undergraduate

Description

This is a lab for students in NCBM 0009.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

DMTH0100 - Introductory Algebra
Course Title

Introductory Algebra

Academic Level

Undergraduate

Description

This course covers introductory algebra topics.

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

3

DMTH0200 - Intermediate Algebra
Course Title

Intermediate Algebra

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

3

Diesel Eng Mechanic & Repairer

DEMR1000 - Introduction to Shop Safety and Tools
Course Title

Introduction to Shop Safety and Tools

Academic Level

Continuing Education

Description

Shop safety, rules, basic shop tools, and test equipment.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

DEMR1010 - Diesel Engine Testing/Repair I
Course Title

Diesel Engine Testing/Repair I

Academic Level

Continuing Education

Description

An introduction to testing and repairing diesel engines including related systems and specialized tools.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

52

Semester Credit Hours

0

DEMR1021 - Power Train I
Course Title

Power Train I

Academic Level

Continuing Education

Description

Fundamental repair and theory of power trains including clutches transmissions drive shafts and differentials. Emphasis on inspection and repair.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

52

Semester Credit Hours

0

DEMR1023 - HVAC Troubleshooting & Repair
Course Title

HVAC Troubleshooting & Repair

Academic Level

Continuing Education

Description

Introduction to Heating, Ventilation, and Air Conditioning Theory, Testing, and Repair. Emphasis on Refrigerant Reclamation, Safety Procedures, Specialized Tools, and Repairs.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

DEMR1027 - Tractor Trailer Ser/Repair
Course Title

Tractor Trailer Ser/Repair

Academic Level

Continuing Education

Description

An introduction to and familiarization with components and systens related to tractor trailer serivce Emphasis in records required by the Dpartment of Transporation.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Semester Credit Hours

0

DEMR1225 - Small Air Cooled Engines
Course Title

Small Air Cooled Engines

Academic Level

Undergraduate

Description

Fundamentals of air cooled engines including repair and testing.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

DEMR1229 - Preventative Maintenance
Course Title

Preventative Maintenance

Academic Level

Undergraduate

Description

An introductory course designed to provide the student with basic knowledge of proper servicing practices. Content includes record keeping and condition of major systems.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

DEMR1301 - Shop Safety and Procedures
Course Title

Shop Safety and Procedures

Academic Level

Undergraduate

Description

A study of shop safety, rules, basic shop tools, and test equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR1305 - Basic Electrical Systems
Course Title

Basic Electrical Systems

Academic Level

Undergraduate

Description

Basic principles of electrical systems of diesel powered equipment with emphasis on starters, alternators, and batteries.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR1316 - Basic Hydraulics
Course Title

Basic Hydraulics

Academic Level

Undergraduate

Description

Fundamentals of hydraulics including components and related systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR1317 - Basic Brake Systems
Course Title

Basic Brake Systems

Academic Level

Undergraduate

Description

Basic principles of brake systems of diesel powered equipment. Emphasis on maintenance, repairs, and troubleshooting.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR1321 - Power Train I
Course Title

Power Train I

Academic Level

Undergraduate

Description

Fundamental repair and theory of power trains including clutches, transmissions, drive shafts, and differentials. Emphasis on inspection and repair.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair
Course Title

Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair

Academic Level

Undergraduate

Description

Introduction to heating, ventilation, and air conditioning theory, testing, and repair. Emphasis on refrigerant reclamation, safety procedures, specialized tools, and repairs.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR1327 - Tractor Trailer Service and Repair

Course Title

Tractor Trailer Service and Repair

Academic Level

Undergraduate

Description

An introduction to and familiarization with components and systems related to tractor trailer service. Emphasis on records required by the Department of Transportation.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DEMR1317 - Basic Brake Systems (3)

DEMR1329 - Preventative Maintenance
Course Title

Preventative Maintenance

Academic Level

Undergraduate

Description

An introductory course designed to provide the student with basic knowledge of proper servicing practices. Content includes record keeping and condition of major systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR1330 - Steering and Suspension I
Course Title

Steering and Suspension I

Academic Level

Undergraduate

Description

A study of design, function, maintenance, and repair of steering and suspension systems. Emphasis on troubleshooting and repair of failed components.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR1371 - Chassis I
Course Title

Chassis I

Academic Level

Undergraduate

Description

A study of basic principles, design, function, maintenance, and repair of brakes and traction control systems. Emphasis on troubleshooting and repair of failed components.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR1372 - Chassis II

Course Title

Chassis II

Academic Level

Undergraduate

Description

A study of advanced principles, design, function, maintenance, and repair of brakes, steering and suspension systems. Emphasis on troubleshooting and repair of failed components.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DEMR1371 - Chassis I (3)

DEMR1375 - Introduction to Medium Heavy-Duty Truck and Equipment

Course Title

Introduction to Medium Heavy-Duty Truck and Equipment

Academic Level

Undergraduate

Description

An introduction to the medium heavy-duty truck and equipment industry including history, safety practices, shop equipment and tools, vehicle subsystems, service publications, professional responsibilities, and basic maintenance. May be taught to manufacturer specification. A study of shop safety, preventative maintenance, and systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR1380 - Cooperative Education - Diesel Mechanics Technology/Technician
Course Title

Cooperative Education - Diesel Mechanics Technology/Technician

Academic Level

Undergraduate

Description

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.

This course is the technical elective that will be going away Fall of 2023. It has a minimum requirement of 30 hours per week for 15 weeks

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

19

Total Contact Hours

320

Credits

3

Semester Credit Hours

3

DEMR1406 - Diesel Engine I

Course Title

Diesel Engine I

Academic Level

Undergraduate

Description

An introduction to the basic principles of diesel engines and systems.

Lecture Hours

2 hr

Lab Hours

4 hr

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - DEMR1410 - Diesel Engine Testing and Repair I (4)

DEMR1410 - Diesel Engine Testing and Repair I

Course Title

Diesel Engine Testing and Repair I

Academic Level

Undergraduate

Description

An introduction to testing and repairing diesel engines including related systems and specialized tools.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

DEMR1416 - Basic Hydraulics
Course Title

Basic Hydraulics

Academic Level

Undergraduate

Description

Fundamentals of hydraulics including components and related systems

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

04

Total Contact Hours

96

Credits

4

DEMR1421 - Power Train I
Course Title

Power Train I

Academic Level

Undergraduate

Description

Introduction to Fundamentals, Repair, and Theory of Power Trains Including Clutches, Transmissions, Drive Shafts, and Differentials. Emphasis on Inspection and Repair.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

DEMR1447 - Power Train II
Course Title

Power Train II

Academic Level

Undergraduate

Description

Continuation of fundamentals and theory of power train systems. Emphasis on disassembly, inspection, and repair of power train components.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete at least 3 credits from the following:
  - DEMR1321 - Power Train I (3)
  - DEMR1421 - Power Train I (4)

DEMR1680 - Cooperative Education - Diesel Mechanics Technology/Technician
Course Title

Cooperative Education - Diesel Mechanics Technology/Technician

Academic Level

Undergraduate

Description

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.

This course is the technical elective that will be going away Fall of 2023. It has a minimum requirement of 30 hours per week for 15 weeks

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

39

Total Contact Hours

640

Credits

6

Semester Credit Hours

6

DEMR2012 - Diesel Engine Testing and Repair II
Course Title

Diesel Engine Testing and Repair II

Academic Level

Continuing Education

Description

Continuation of Diesel Engine Testing and Repair I Coverage of testing and repairing diesel engines including related systems and specialized tools.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

52

Semester Credit Hours

0

DEMR2031 - Advanced Brake Systems
Course Title

Advanced Brake Systems

Academic Level

Continuing Education

Description

An advanced brake system course for diesel powered equipment. Advanced concepts and schematics including anti-lock, air, pneumatic, and hydraulic brake systems and related components.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

DEMR2312 - Diesel Engine Testing and Repair II
Course Title

Diesel Engine Testing and Repair II

Academic Level

Undergraduate

Description

Continuation of Diesel Engine Testing and Repair I. Coverage of testing and repairing diesel engines including related systems and specialized tools.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR2332 - Electronic Controls
Course Title

Electronic Controls

Academic Level

Undergraduate

Description

Advanced skills in diagnostic and programming techniques of electronic control systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DEMR1305 - Basic Electrical Systems (3)
    - DEMR2412 - Diesel Engine Testing and Repair II (4)

DEMR2334 - Advanced Diesel Tune-Up and Troubleshooting
Course Title

Advanced Diesel Tune-Up and Troubleshooting

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
  - Complete the following:
    - DEMR2412 - Diesel Engine Testing and Repair II (4)
  - Complete at least 1 of the following:
    - DEMR2312 - Diesel Engine Testing and Repair II (3)
    - AUMT2417 - Automotive Engine Performance Analysis I (4)

DEMR2335 - Advanced Hydraulics
Course Title

Advanced Hydraulics

Academic Level

Undergraduate

Description

Advanced study of hydraulic systems and components including diagnostics and testing of hydraulic systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - DEMR1316 - Basic Hydraulics (3)
    - DEMR1416 - Basic Hydraulics (4)

DEMR2339 - Advanced Electrical Systems

Course Title

Advanced Electrical Systems

Academic Level

Undergraduate

Description

A continuation of basic electrical systems to include various accessories and electronic systems. Emphasis on diagnosis, testing, and repair using the various tools and procedures for current electrical and electronic systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 3 credits from the following:
  - DEMR2332 - Electronic Controls (3)

DEMR2344 - Automatic Power Shift and Hydrostatic Transmissions II
Course Title

Automatic Power Shift and Hydrostatic Transmissions II

Academic Level

Undergraduate

Description

Extended study of the operation, maintenance, and repair of automatic power shift hydrostatic transmissions.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - DEMR1321 - Power Train I (3)
    - DEMR2312 - Diesel Engine Testing and Repair II (3)
    - DEMR2412 - Diesel Engine Testing and Repair II (4)

DEMR2348 - Failure Analysis
Course Title

Failure Analysis

Academic Level

Undergraduate

Description

An advanced course designed for analysis of typical part failures on equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DEMR2370 - Hybrid and Electric Vehicle Systems
Course Title

Hybrid and Electric Vehicle Systems

Academic Level

Undergraduate

Description

An advanced study of hybrid and/or battery electric vehicles (BEV) and the unique characteristics of hybrid and/or BEV systems. Includes hybrid and/or BEV safety procedures, diagnosis, and repair of hybrid and/or BEV systems. May be taught manufacturer specific.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DEMR1305 - Basic Electrical Systems (3)
    - DEMR2332 - Electronic Controls (3)
    - DEMR2339 - Advanced Electrical Systems (3)

DEMR2412 - Diesel Engine Testing and Repair II
Course Title

Diesel Engine Testing and Repair II

Academic Level

Undergraduate

Description

Continuation of Diesel Engine Testing and Repair I. Coverage of testing and repairing diesel engines including related systems and specialized tools.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - DEMR1410 - Diesel Engine Testing and Repair I (4)

Dietetics/Human Nutritional

FDNS1305 - Nutrition
Course Title

Nutrition

Academic Level

Undergraduate

Description

A study of nutrients including functions, food sources, digestion, absorption and metabolism with application to normal and preventive nutrition needs. Includes nutrient intake analysis, energy expenditure evaluation, and diet planning.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Drafting

DFTG1000 - Specialized Computer Aided Drafting Cad
Course Title

Specialized Computer Aided Drafting Cad

Academic Level

Continuing Education

Description

A supplemental course to Basic Computer-Aided Drafting using an alternative computer-aided drafting (CAD) software.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

DFTG1013 - Drafting for Specific Occupat
Course Title

Drafting for Specific Occupat

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

DFTG1022 - Basic Blueprint Reading
Course Title

Basic Blueprint Reading

Academic Level

Continuing Education

Description

Emphasis on accurate/efficient interpretation of symbols/graphic language required to produce working drawings

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

DFTG1023 - Blueprint Reading for Sp Occup
Course Title

Blueprint Reading for Sp Occup

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

DFTG1309 - Basic Computer-Aided Drafting
Course Title

Basic Computer-Aided Drafting

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DFTG1310 - Specialized Basic Computer Aided Drafting (CAD)
Course Title

Specialized Basic Computer Aided Drafting (CAD)

Academic Level

Undergraduate

Description

A supplemental course to Basic Computer Aided Drafting using an alternative computer-aided drafting (CAD) software to create detail and working drawings.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DFTG1313 - Drafting for Specific Occupations
Course Title

Drafting for Specific Occupations

Academic Level

Undergraduate

Description

Discussion of theory and practice with drafting methods and the terminology required to prepare working drawings in specific or various occupational fields.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DFTG1317 - Architectural Drafting - Residential

Course Title

Architectural Drafting - Residential

Academic Level

Undergraduate

Description

Architectural drafting procedures, practices, terms, and symbols. Preparation of detailed working drawings for residential structures. Emphasis on light frame construction methods.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ARCE1321 - Architectural Illustration (3)

DFTG1325 - Blueprint Reading and Sketching

Course Title

Blueprint Reading and Sketching

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DFTG1329 - Electro-Mechanical Drafting

Course Title

Electro-Mechanical Drafting

Academic Level

Undergraduate

Description

A basic course including layout and design of electro-mechanical equipment from engineering notes and sketches.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:

DFTG1330 - Civil Drafting 1

Course Title

Civil Drafting 1

Academic Level

Undergraduate

Description

Preparation of civil drawings including drafting methods and principles used in civil engineering.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:

DFTG1333 - Mechanical Drafting

Course Title

Mechanical Drafting

Academic Level

Undergraduate

Description

Study of mechanical drawings using dimensioning and tolerances, sectioning techniques, orthographic projection, and pictorial drawings.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:

DFTG1341 - Intermediate Technical Animation and Rendering

Course Title

Intermediate Technical Animation and Rendering

Academic Level

Undergraduate

Description

3-D modeling and rendering techniques including lighting, staging, camera, and special effects. Emphasizes 3-D modeling building blocks using primitives to create simple and complex architectural/mechanical models.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DFTG1345 - Parametric Modeling and Design

Course Title

Parametric Modeling and Design

Academic Level

Undergraduate

Description

Parametric-based design software for 3D design and drafting.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DFTG1357 - Specialized Intermediate Computer-Aided Drafting (CAD)

Course Title

Specialized Intermediate Computer-Aided Drafting (CAD)

Academic Level

Undergraduate

Description

A continuation of practices and techniques used in Specialized Basic Computer-Aided Drafting. Emphasizes advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, interfacing two-dimensional (2D) and/or three-dimensional (3D) environments and extracting data.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DFTG1358 - Electrical/Electronics Drafting

<u>**Course Title**</u>

Electrical/Electronics Drafting

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
  - DFTG1329 - Electro-Mechanical Drafting (3)

DFTG1380 - Coop-Drafting

Course Title

Coop-Drafting

Academic Level

Undergraduate

Description

Career Related Activities Encountered in the Student's Area of Specialization 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. This Course May Be Repeated If Topics and Learning Outcomes Vary.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

17

Total Contact Hours

288

Credits

3

Semester Credit Hours

3

DFTG1392 - Special Topics in Architectural Drafting and Architectural CAD/CADD

Course Title

Special Topics in Architectural Drafting and Architectural CAD/CADD

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DFTG2328 - Architectural Drafting - Commercial (3)

DFTG1393 - Special Topics in Civil Drafting Civil Engineering CAD/CADD
<u>**Course Title**</u>

Special Topics in Civil Drafting Civil Engineering CAD/CADD

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
  - DFTG2321 - Topographical Drafting (3)

DFTG1395 - Special Topics in Mechanical Drafting and Mechanical Drafting CAD/CADD
Course Title

Special Topics in Mechanical Drafting and Mechanical Drafting CAD/CADD

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - DFTG2335 - Advanced Technologies in Mechanical Design and Drafting (3)

DFTG2050 - Online Geometric Dimensioning Tolerancin
Course Title

Online Geometric Dimensioning Tolerancin

Academic Level

Continuing Education

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

66

Semester Credit Hours

0

DFTG2302 - Machine Drafting

Course Title

Machine Drafting

Academic Level

Undergraduate

Description

Production of detail and assembly drawings of machines, threads, gears, utilizing tolerances, limit dimensioning, and surface finishes.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DFTG1333 - Mechanical Drafting (3)

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DFTG2306 - Machine Design

Course Title

Machine Design

Academic Level

Undergraduate

Description

Theory and practice of design. Projects in problem-solving, including press fit, bolted and welded joints, and transmission components.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DFTG2335 - Advanced Technologies in Mechanical Design and Drafting (3)

DFTG2312 - Technical Illustration and Presentation

Course Title

Technical Illustration and Presentation

Academic Level

Undergraduate

Description

Pictorial drawing including isometrics, obliques, perspectives, charts, and graphs. Emphasis on rendering and using different media.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DFTG2328 - Architectural Drafting - Commercial (3)

DFTG2321 - Topographical Drafting

Course Title

Topographical Drafting

Academic Level

Undergraduate

Description

Plotting of surveyor's field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DFTG1330 - Civil Drafting 1 (3)

DFTG2323 - Pipe Drafting

Course Title

Pipe Drafting

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:

DFTG2328 - Architectural Drafting - Commercial

Course Title

Architectural Drafting - Commercial

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - DFTG1317 - Architectural Drafting - Residential (3)

DFTG2330 - Civil Drafting

Course Title

Civil Drafting

Academic Level

Undergraduate

Description

An in-depth study of drafting methods and principles used in civil engineering.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

DFTG2331 - Adv Techn-Architect Design & Drafting Design and Drafting

Course Title

Adv Techn-Architect Design & Drafting Design and Drafting

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - DFTG2328 - Architectural Drafting - Commercial (3)

DFTG2332 - Advanced Computer-Aided Drafting

Course Title

Advanced Computer-Aided Drafting

Academic Level

Undergraduate

Description

Application of advanced CAD techniques.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DFTG2340 - Solid Modeling/Design (3)

DFTG2335 - Advanced Technologies in Mechanical Design and Drafting
Course Title

Advanced Technologies in Mechanical Design and Drafting

Academic Level

Undergraduate

Description

Use parametric-based software for mechanical design for advanced modeling and analysis.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DFTG2302 - Machine Drafting (3)

DFTG2340 - Solid Modeling/Design

Course Title

Solid Modeling/Design

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - DFTG2302 - Machine Drafting (3)

DFTG2350 - Geometric Dimensioning and Tolerancing
Course Title

Geometric Dimensioning and Tolerancing

Academic Level

Undergraduate

Description

Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - DFTG2302 - Machine Drafting (3)

DFTG2357 - Advanced Technologies in Pipe Design and Drafting

Course Title

Advanced Technologies in Pipe Design and Drafting

Academic Level

Undergraduate

Description

Advanced design and production techniques using specialized process plant based design software.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - DFTG1329 - Electro-Mechanical Drafting (3)

DFTG2380 - Cooperative Education Drafting and Design Techogy/Technican

Course Title

Cooperative Education Drafting and Design Techogy/Technican

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

17

Total Contact Hours

288

Credits

3

Semester Credit Hours

3

DFTG2381 - Cooperative Education Drafting and Design Techolgy/Tech.
Course Title

Cooperative Education Drafting and Design Techolgy/Tech.

Academic Level

Undergraduate

Description

Career Related Activities Encountered in the Student's Area of Specialization Offered Through a Individualized Agreement among the College, Employer, and Student. Under Supervision of The College and the Employer, the Student Combines Classroom Learning With Work Experience. Includes a Lecture Component.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

19

Total Contact Hours

320

Credits

3

Semester Credit Hours

3

DFTG2386 - Internship - Drafting and Design Technology/Technician, General

Course Title

Internship - Drafting and Design Technology/Technician, General

Academic Level

Undergraduate

Description

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.

9.6 Hours a week and will vary slightly denpending on what the company offering the internship needs. 144 hours total for the semester.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

9

Total Contact Hours

144

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:

DFTG2680 - Cooperative Education
<u>**Course Title**</u>

Cooperative Education

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Drafting and Design Technology/Technican, General Career Related Activities Encountered in the Student's Area of Specialization Offered Through Idividualized Agreement among the College, Employer, And Student. Under Supervision of the College and the Employer, The Student Combines Classroom Learning With Work Experience. Includes a Lecture component.

<u>**Lecture Hours**</u>

1

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

39

<u>**Total Contact Hours**</u>

640

<u>**Credits**</u>

6

<u>**Semester Credit Hours**</u>

6

Drug/Alcohol Abuse Counseling

DAAC1304 - Pharmacology of Substance Use Disorders
Course Title

Pharmacology of Substance Use Disorders

Academic Level

Undergraduate

Description

Emphasizes pharmacological effects of substances, including tolerance, dependence, cross addiction, drug interaction, withdrawal, and recovery. Describes the psychological and physiological effects of substance use and behaviors.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

DAAC1305 - Co-Occurring Disorders
Course Title

Co-Occurring Disorders

Academic Level

Undergraduate

Description

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 co-occurring disorders.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

DAAC1309 - Assessment of Substance Use Disorders
Course Title

Assessment of Substance Use Disorders

Academic Level

Undergraduate

Description

Exploration of procedures and tools used to identify substance use disorders and assess a client's problems, strengths, limitations and resources.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

DAAC1311 - Counseling Theories
Course Title

Counseling Theories

Academic Level

Undergraduate

Description

An examination of major theories and current treatment modalities used in the field of counseling.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

DAAC1317 - Basic Counseling Skills
Course Title

Basic Counseling Skills

Academic Level

Undergraduate

Description

An overview and application of the basic counseling skills.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

DAAC1319 - Introduction to Substance Use Disorders
Course Title

Introduction to Substance Use Disorders

Academic Level

Undergraduate

Description

An overview of causes and impacts of substance use disorders, the primary prevention, intervention, and treatment methods utilized, the major drug classifications, and the counselor's code of ethics.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

DAAC1391 - Spec Topics - Alcohol/Drug Abuse Counsel
Course Title

Spec Topics - Alcohol/Drug Abuse Counsel

Academic Level

Undergraduate

Description

Topics adddress 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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

3

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

DAAC2301 - Therapeutic Communities in a Criminal Justice Setting
Course Title

Therapeutic Communities in a Criminal Justice Setting

Academic Level

Undergraduate

Description

A study of therapeutic communities as an approach to rehabilitation of substance users in a criminal justice setting.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

DAAC2306 - Substance Abuse Prevention I
Course Title

Substance Abuse Prevention I

Academic Level

Undergraduate

Description

Examination of substance use disorder prevention.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

DAAC2307 - Family Intervention with Substance Use Disorders
Course Title

Family Intervention with Substance Use Disorders

Academic Level

Undergraduate

Description

Examination of family systems focusing on the effects of substance use and recovery.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

DAAC2341 - Counseling of Substance Use Disorders
Course Title

Counseling of Substance Use Disorders

Academic Level

Undergraduate

Description

Advanced examination of knowledge, skills, attitudes, techniques, confidentiality and ethical guidelines applied in the counseling, treatment, prevention, and recovery of substance use disorders.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

DAAC2343 - Current Issues
Course Title

Current Issues

Academic Level

Undergraduate

Description

Examination of current issues related to substance use disorders.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

DAAC2354 - Dynamics of Group Counseling

Course Title

Dynamics of Group Counseling

Academic Level

Undergraduate

Description

Exploration of group counseling skills, techniques, stages of group development, and confidentiality and ethics.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

DAAC2366 - Practicum (or Field Experience) - Substance Abuse/Addiction Counseling
Course Title

Practicum (or Field Experience) - Substance Abuse/Addiction Counseling

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Additional Course Information

Students are required to complete 336 total contact hours in the semester. The student should complete 21 external contact hours per week for a 15 week semester.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

21

Total Contact Hours

336

Credits

3

Semester Credit Hours

3

Early Childhood Education

TECA1318 - Wellness of the Young Child

Course Title

Wellness of the Young Child

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

TECA1354 - Child Growth & Development
Course Title

Child Growth & Development

Academic Level

Undergraduate

Description

A study of the physical, emotional, social, language, and cognitive factors impacting growth and development of children through adolescence.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Economics

ECON1301 - Introduction to Economics
Course Title

Introduction to Economics

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ECON2301 - Principles of Macroeconomics

Course Title

Principles of Macroeconomics

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ECON2302 - Principles of Microeconomics
Course Title

Principles of Microeconomics

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Electrical

EECT1005 - Basic Industrial Electricity
Course Title

Basic Industrial Electricity

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

EECT1041 - Electric Motors
Course Title

Electric Motors

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

Electrical & Power Transmission

ELPT1000 - Basic Electrical Wiring
Course Title

Basic Electrical Wiring

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ELPT1001 - Electromechanical Basics
Course Title

Electromechanical Basics

Academic Level

Continuing Education

Description

Includes minimum requirements for approval of electrical installation specified by the National Electrical Code (NEC). Examination of all aspects of electrical installation from the standpoint of safety for personnel and equipment.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

24

Semester Credit Hours

0

ELPT1002 - Introduction to Electrical Controls
Course Title

Introduction to Electrical Controls

Academic Level

Continuing Education

Description

General principles of electrical controls and their components in the electrical power industry. Includes reading electrical diagrams and identifying industrial switches and pilot devices. Introduction to hardwiring and troubleshooting of industrial control relays and timers.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

ELPT1003 - Introduction to Programmable Logic Controllers
Course Title

Introduction to Programmable Logic Controllers

Academic Level

Continuing Education

Description

Basic hardware and software applications for industrial Programmable Logic Controllers (PLC). Includes power supplies, discrete Input/Output (IO) modules, programming devices, processors, basic logic elements, timers, and counters.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

39

Semester Credit Hours

0

ELPT1011 - Basic Electrical Theory
Course Title

Basic Electrical Theory

Academic Level

Continuing Education

Description

Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current.

Lecture Hours

5

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

87

Semester Credit Hours

0

ELPT1040 - Master Electrician Exam Review
Course Title

Master Electrician Exam Review

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ELPT1041 - Motor Control
Course Title

Motor Control

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ELPT1051 - Electrical Machines
Course Title

Electrical Machines

Academic Level

Continuing Education

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

ELPT1091 - Special Topics in Electrical and Power Transmission Installer, General
Course Title

Special Topics in Electrical and Power Transmission Installer, General

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ELPT1215 - Electrical Calculations I
Course Title

Electrical Calculations I

Academic Level

Undergraduate

Description

Introduction to mathematical applications utilized to solve problems in the electrical field. Topics include fractions, decimals, percentages, simple equations, ratio and proportion, unit conversions, and applied geometry.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

ELPT1221 - Introduction to Electrical Safety and Tools
Course Title

Introduction to Electrical Safety and Tools

Academic Level

Undergraduate

Description

Safety rules and regulations. Includes the selection, inspection, use, and maintenance of common tools for electricians.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

ELPT1225 - National Electrical Code I
Course Title

National Electrical Code I

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

ELPT1311 - Basic Electrical Theory
Course Title

Basic Electrical Theory

Academic Level

Undergraduate

Description

Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ELPT1315 - Electrical Calculations I
Course Title

Electrical Calculations I

Academic Level

Undergraduate

Description

Introduction to mathematical applications utilized to solve problems in the electrical field. Topics include fractions, decimals, percentages, simple equations, ratio and proportion, unit conversions, and applied geometry.

Lecture Hours

2

Lab Hours

2

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

ELPT1319 - Fundamentals of Electricity I
Course Title

Fundamentals of Electricity I

Academic Level

Undergraduate

Description

An introduction to basic direct current (DC) theory including electron theory and direct current applications.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ELPT1320 - Fundamentals of Electricity II
Course Title

Fundamentals of Electricity II

Academic Level

Undergraduate

Description

Introduces alternating current (AC). Includes AC voltage, frequency, mechanical and electrical degrees, waveforms, resistors, capacitors, and inductors.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 3 credits from the following:
    - CETT1303 - DC Circuits (3)
    - ELPT1319 - Fundamentals of Electricity I (3)

ELPT1321 - Introduction to Electrical Safety and Tools
Course Title

Introduction to Electrical Safety and Tools

Academic Level

Undergraduate

Description

Safety rules and regulations. Includes the selection, inspection, use, and maintenance of common tools for electricians.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

ELPT1325 - National Electrical Code I
Course Title

National Electrical Code I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

ELPT1329 - Residential Wiring
Course Title

Residential Wiring

Academic Level

Undergraduate

Description

Wiring methods for single family and multi-family dwellings. Includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ELPT1340 - Master Electrician Exam Review I
Course Title

Master Electrician Exam Review I

Academic Level

Undergraduate

Description

Electrical theory, code calculations, and interpretations applicable to becoming a Master Electrician. Emphasizes residential, commercial, and industrial installations using the current edition of the National Electric Code (NEC) and local ordinances.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ELPT1341 - Motor Control
Course Title

Motor Control

Academic Level

Undergraduate

Description

Operating principles of solid-state and conventional controls along with their practical applications. Includes braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretations.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
  - AACT1371 - Electronics Fundamentals in Automation (3)
  - ELPT1311 - Basic Electrical Theory (3)
  - CETT1303 - DC Circuits (3)
  - ELPT1319 - Fundamentals of Electricity I (3)
  - INMT1372 - Introduction to Industrial Electricity (3)

ELPT1345 - Commercial Wiring

__Course Title__

Commercial Wiring

__Academic Level__

Undergraduate

__Description__

Commercial wiring methods. Includes overcurrent protection, raceway panel board installation, proper grounding techniques, and associated safety procedures.

__Lecture Hours__

2

__Lab Hours__

4

__Ext. Con. Hrs__

0

__Total Contact Hours__

96

__Credits__

3

__Semester Credit Hours__

3

__Prerequisites__

- Complete all of the following
  - Complete the following:
    - ELPT1329 - Residential Wiring (3)
  - Completed or concurrently enrolled in:
    - ELPT1311 - Basic Electrical Theory (3)

ELPT1351 - Electrical Machines
Course Title

Electrical Machines

Academic Level

Undergraduate

Description

Direct current (DC) motors, single-phase and polyphase alternating current (AC) motors, generators, and alternators. Emphasis on construction, characteristics, efficiencies, starting, and speed control.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 3 credits from the following:
    - ELPT1320 - Fundamentals of Electricity II (3)
    - ELPT1341 - Motor Control (3)

ELPT1357 - Industrial Wiring

Course Title

Industrial Wiring

Academic Level

Undergraduate

Description

Wiring methods used for industrial installations. Includes motor circuits, raceway and bus way installations, proper grounding techniques, and associated safety procedures.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
  - Complete the following:
    - ELPT1329 - Residential Wiring (3)
  - Completed or concurrently enrolled in:
    - ELPT1311 - Basic Electrical Theory (3)

ELPT1364 - Practicum - Electrical&power Trans Insta Electrical and Power Transmission Installer

Course Title

Practicum - Electrical&power Trans Insta Electrical and Power Transmission Installer

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

30

Total Contact Hours

480

Credits

3

Semester Credit Hours

3

ELPT1380 - Cooperative Education - Electrical and Power Transmission Installation/Installer, General

Course Title

Cooperative Education - Electrical and Power Transmission Installation/Installer, General

Academic Level

Undergraduate

Description

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.

Additional Course Information

Students are required to complete 320 total contact hours in the semester. The student should complete 19 external contact hours per week and 1 lecture contact hour per week.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

19

Total Contact Hours

320

Credits

3

Semester Credit Hours

3

ELPT1680 - Cooperative Education - Electrical and Power Transmission Installation/Installer, General

Course Title

Cooperative Education - Electrical and Power Transmission Installation/Installer, General

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

39

Total Contact Hours

640

Credits

6

Semester Credit Hours

6

ELPT1681 - Cooperative Education - Electrical and Power Transmission Installation/ Installer, General

Course Title

Cooperative Education - Electrical and Power Transmission Installation/ Installer, General

Academic Level

Undergraduate

Description

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.

Additional Course Information

Students are required to complete 640 total contact hours in the semester. The student should complete 39 external contact hours per week and 1 lecture contact hour per week.

Lecture Hours

16

Lab Hours

0

Ext. Con. Hrs

624

Total Contact Hours

640

Credits

6

Semester Credit Hours

6

Prerequisites

- Complete the following:
    - ELPT1329 - Residential Wiring (3)
    - ELPT1345 - Commercial Wiring (3)
    - ELPT1357 - Industrial Wiring (3)
    - ELPT2337 - Electrical Planning and Estimating (3)

ELPT2001 - Journeyman Electrician Exam Re
Course Title

Journeyman Electrician Exam Re

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ELPT2019 - Programmable Logic Controllers
Course Title

Programmable Logic Controllers

Academic Level

Continuing Education

Description

FUNDAMENTAL CONCEPTS OF PROGRAMMABLE LOGIC CONTROLLERS, PRINCIPLES OF OPERATION, NUMBERING SYSTEMS, LOGIC GATES, AND BOOLEAN EXPRESSIONS AS APPLIED TO ELECTRICAL CONTROLS/

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

50

Semester Credit Hours

0

ELPT2305 - Motors and Transformers

Course Title

Motors and Transformers

Academic Level

Undergraduate

Description

Operation of single- and three-phase motors and transformers. Includes transformer banking, power factor correction, and protective devices.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ELPT2315 - Electrical Calculations II
Course Title

Electrical Calculations II

Academic Level

Undergraduate

Description

Mathematical applications used to solve problems in the electrical field. Includes fractions, decimals, ratio and proportion, applied geometry, and utilization of right triangles to calculate electrical values.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ELPT1315 - Electrical Calculations I (3)

ELPT2319 - Programmable Logic Controllers I
Course Title

Programmable Logic Controllers I

Academic Level

Undergraduate

Description

Fundamental concepts of programmable logic controllers, principles of operation, and numbering systems as applied to electrical controls.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Completed or concurrently enrolled in:
    - ELPT1341 - Motor Control (3)

ELPT2323 - Transformers
Course Title

Transformers

Academic Level

Undergraduate

Description

Transformer types, construction, connections, protection, grounding, and associated safety procedures.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ELPT2335 - Electrical Theory and Devices (3)

ELPT2331 - AC/DC Drives
Course Title

AC/DC Drives

Academic Level

Undergraduate

Description

Installation and maintenance of alternating current (AC) and direct current (DC) variable speed drives with emphasis on application, operating characteristics, and troubleshooting techniques.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
  - Complete the following:
    - ELPT1341 - Motor Control (3)
  - Complete at least 3 credits from the following:
    - ELPT1351 - Electrical Machines (3)
    - ELPT2305 - Motors and Transformers (3)

ELPT2335 - Electrical Theory and Devices
Course Title

Electrical Theory and Devices

Academic Level

Undergraduate

Description

Electrical and electronic measuring devices and their applications to the use of electrical power. Includes calculating and balancing single-phase and three-phase systems.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - CETT1305 - AC Circuits (3)
    - MATH1316 - Plane Trigonometry (3)
    - ELPT1320 - Fundamentals of Electricity II (3)

ELPT2337 - Electrical Planning and Estimating

Course Title

Electrical Planning and Estimating

Academic Level

Undergraduate

Description

Planning and estimating for residential, commercial, and industrial wiring systems. Includes a variety of electrical techniques.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Completed or concurrently enrolled in:
  - ELPT1311 - Basic Electrical Theory (3)

ELPT2339 - Electrical Power Distribution

<u>**Course Title**</u>

Electrical Power Distribution

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

2

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

64

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete at least 3 credits from the following:
    - CETT1305 - AC Circuits (3)
    - ELPT1320 - Fundamentals of Electricity II (3)
- Complete the following:
    - DFTG1313 - Drafting for Specific Occupations (3)

ELPT2343 - Electrical Systems Design

Course Title

Electrical Systems Design

Academic Level

Undergraduate

Description

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).

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
  - Complete the following:
    - DFTG1313 - Drafting for Specific Occupations (3)
  - Complete at least 1 of the following:
    - EEIR1309 - National Electrical Code (3)
    - ELPT2339 - Electrical Power Distribution (3)

ELPT2347 - Electrical Testing and Maintenance
Course Title

Electrical Testing and Maintenance

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 3 of the following:
    - CETT1305 - AC Circuits (3)
    - ELPT1320 - Fundamentals of Electricity II (3)
- Complete the following:
    - ELPT1351 - Electrical Machines   (3)
- Completed or concurrently enrolled in:
    - ELMT2339 - Advanced Programmable Logic Controllers (3)

ELPT2349 - Industrial Automation
Course Title

Industrial Automation

Academic Level

Undergraduate

Description

Electrical control systems, applications, and interfacing utilized in industrial automation.

Lecture Hours

2

Lab Hours

4

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ELPT2319 - Programmable Logic Controllers I (3)

ELPT2355 - Programmable Logic Controllers II
Course Title

Programmable Logic Controllers II

Academic Level

Undergraduate

Description

Advanced concepts in programmable logic controllers and their applications and interfacing to industrial controls.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Electromechanical Technician

ELMT1001 - Programmable Logic Controllers
Course Title

Programmable Logic Controllers

Academic Level

Continuing Education

Description

An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

ELMT1003 - Programmable Logic Controllers
Course Title

Programmable Logic Controllers

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ELMT1091 - Special Topics in Electromechanical Technology/Technician
Course Title

Special Topics in Electromechanical Technology/Technician

Academic Level

Continuing Education

Description

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.

Lecture Hours

7

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

112

Semester Credit Hours

0

ELMT1301 - Programmable Logic Controllers
Course Title

Programmable Logic Controllers

Academic Level

Undergraduate

Description

An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1325 - Digital Fundamentals (3)

ELMT1305 - Basic Fluid Power
Course Title

Basic Fluid Power

Academic Level

Undergraduate

Description

Basic fluid power course covering pneumatic and hydraulic systems, fluid power symbols, operating theory, components, and basic electrical and manual controls.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ELMT1373 - Pumps and Compressors Control
Course Title

Pumps and Compressors Control

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1303 - DC Circuits (3)

ELMT1374 - Introduction to Electromechanical System
Course Title

Introduction to Electromechanical System

Academic Level

Undergraduate

Description

Introduction to electro-mechanical systems, with emphasis safety and office documents.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ELMT1391 - Special Topics in Electromechanical Technology/Technician
Course Title

Special Topics in Electromechanical Technology/Technician

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

33

Credits

3

Semester Credit Hours

3

ELMT1405 - Basic Fluid Power
Course Title

Basic Fluid Power

Academic Level

Undergraduate

Description

Basic fluid power course covering pneumatic and hydraulic systems, fluid power symbols, operating theory, components, and basic electrical and manual controls.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

ELMT1491 - Special Topics in Electromechanical Technology/Technician
Course Title

Special Topics in Electromechanical Technology/Technician

Academic Level

Undergraduate

Description

This course is designed to familiarize the student with concepts in electro-mechanical technology specific to wind turbines.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - ELMT2239 - Advanced Programmable Logic Controllers (2)

ELMT2039 - Advanced Prog Logic Controller
Course Title

Advanced Prog Logic Controller

Academic Level

Continuing Education

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

ELMT2239 - Advanced Programmable Logic Controllers
Course Title

Advanced Programmable Logic Controllers

Academic Level

Undergraduate

Description

Advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting ladder logic, and interfacing to equipment.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
  - ELMT1301 - Programmable Logic Controllers (3)

ELMT2333 - Industrial Electronics
Course Title

Industrial Electronics

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ELMT2335 - Certified Electronics Technician Training
Course Title

Certified Electronics Technician Training

Academic Level

Undergraduate

Description

Review of electronics concepts and principles in preparation for sitting for a certification examination administered by an outside organization or agency.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ELMT2339 - Advanced Programmable Logic Controllers

Course Title

Advanced Programmable Logic Controllers

Academic Level

Undergraduate

Description

Advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting ladder logic, and interfacing to equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ELMT2341 - Electromechanical Systems
Course Title

Electromechanical Systems

Academic Level

Undergraduate

Description

Application of electromechanical systems. Emphasizes programmable control devices and solid state systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ELMT1374 - Introduction to Electromechanical System (3)

ELMT2371 - Industrial Control Power Devices
Course Title

Industrial Control Power Devices

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1305 - AC Circuits (3)

ELMT2372 - Process Control Systems

Course Title

Process Control Systems

Academic Level

Undergraduate

Description

Fundamental concepts of instrumentation process control. Course instruct students to program process control equipment, change controller parameter and analyze monitoring data.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ELMT1373 - Pumps and Compressors Control (3)

ELMT2373 - Communication Protocols

Course Title

Communication Protocols

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - CETT1325 - Digital Fundamentals (3)

ELMT2380 - Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology

Course Title

Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology

Academic Level

Undergraduate

Description

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.

Students are required to work a minimum of 16 hours a week. They must work at least 240 hrs during the semester.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

20

Total Contact Hours

336

Credits

3

Semester Credit Hours

3

ELMT2480 - Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology

Course Title

Cooperative Education - Electromechanical Technology/Electromechanical Engineering Technology

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

21

Total Contact Hours

352

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - ELMT2239 - Advanced Programmable Logic Controllers (2)

Electronics

EEIR1309 - National Electrical Code
Course Title

National Electrical Code

Academic Level

Undergraduate

Description

Interpretation of the National Electrical Code for residential, commercial and industrial wiring. Emphasis on designing, constructing, and troubleshooting electrical systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
  - Complete at least 1 of the following:
    - CETT1305 - AC Circuits (3)
    - ELPT1320 - Fundamentals of Electricity II (3)
  - Complete the following:
    - ELPT1341 - Motor Control (3)

EEIR1371 - Electrical Principles and Applications
<u>**Course Title**</u>

Electrical Principles and Applications

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Major topics include safety; the engineering subset of metric prefixes; engineering notation; electronic abbreviations; schematic symbols; resistor color codes; wire size and composition;
Ohm's Law, Watt's Law, and Kirchhoff's Laws; analysis of simple direct current and alternating current circuitry; and basic electrical devices including direct current motors, transformers,
and passive filters. Laboratory sessions will stress use of test equipment including the digital multimeter and oscilloscope, construction of simple circuits, and troubleshooting
techniques to determine faults in simple circuits.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

EEIR2388 - Internship - Industrial Electronics Technology/Technician
Course Title

Internship - Industrial Electronics Technology/Technician

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

10

Total Contact Hours

160

Credits

3

Semester Credit Hours

3

IEIR1302 - Introduction to Direct Current Circuits
Course Title

Introduction to Direct Current Circuits

Academic Level

Undergraduate

Description

Fundamentals of Direct Current Including Ohm's Law. Emphasis on Methods of Analyzing Series, Parallel, and Combination Circuits Including Measurement Devices.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

IEIR1304 - Alternating Current Circuits for Industrial Applications
Course Title

Alternating Current Circuits for Industrial Applications

Academic Level

Undergraduate

Description

Fundamentals of Alternating Current Including Series and Parallel Circuits, Phasors, and Capacitive and Inductive Networks. Discussion of Circuit Analysis and Measurement

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

IEIR1371 - Electrical Principles and Applications
Course Title

Electrical Principles and Applications

Academic Level

Undergraduate

Description

Major topics include safety; the engineering subset of metric prefixes; engineering notation; electronic abbreviations; schematic symbols; resistor color codes; wire size and composition; Ohm's Law, Watt's Law, and Kirchhoff's Laws; analysis of simple direct current and alternating current circuitry; and basic electrical devices including direct current motors, transformers, and passive filters. Laboratory sessions will stress use of test equipment including the digital multimeter and oscilloscope, construction of simple circuits, and troubleshooting techniques to determine faults in simple circuits.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

95

Credits

3

Semester Credit Hours

3

ITNW1000 - Network Technologies-Novell 5
Course Title

Network Technologies-Novell 5

Academic Level

Continuing Education

Description

Basic computer networking terminology and concepts, contemporary network services, transmission media, and protocols.

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

0

ITNW1058 - Network+
Course Title

Network+

Academic Level

Continuing Education

Description

Prepares individuals for a career as a Network Engineer in the Information Technology support industry. Includes the various responsibilities and tasks required for service engineer to successfully perform in a specific environment. Prepares individuals to pass the Computing Technology Industry Association (CompTia) Network+ certification exam.

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

ITNW1059 - World Wide Web
Course Title

World Wide Web

Academic Level

Continuing Education

Description

This course will focus on the use of the World Wide Web (WWW) and the creation of a home page. Web browsers and Hypertext Markup Language (HTML) are discussed.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

7

Semester Credit Hours

0

ITNW1308 - Implementing and Supporting Client Operating Systems
Course Title

Implementing and Supporting Client Operating Systems

Academic Level

Undergraduate

Description

The fundamentals of managing and configuring network clients.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW1309 - Fundamentals of Cloud Computing
Course Title

Fundamentals of Cloud Computing

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW1313 - Computer Virtualization
Course Title

Computer Virtualization

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW1325 - Fundamentals of Networking Technologies
Course Title

Fundamentals of Networking Technologies

Academic Level

Undergraduate

Description

Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW1345 - Implementing Network Directory Services
Course Title

Implementing Network Directory Services

Academic Level

Undergraduate

Description

In-depth coverage of the skills necessary to install, configure, and administer Network Directory service.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW1354 - Implementing and Supporting Servers
Course Title

Implementing and Supporting Servers

Academic Level

Undergraduate

Description

Implement, administer, and troubleshoot information systems that incorporate servers in a networked computing environment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW1358 - Network+
Course Title

Network+

Academic Level

Undergraduate

Description

Assists individuals in preparing for the Computing Technology Industry Association (CompTIA) Network+ certification exam and career as a network professional.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW1380 - Coop-Bus Sys Nwk &tel
Course Title

Coop-Bus Sys Nwk &tel

Academic Level

Undergraduate

Description

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. This Course May Be Repeated If Topics and Learning Outcomes Vary.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

19

Total Contact Hours

320

Credits

3

Semester Credit Hours

3

ITNW1391 - Special Topics in Information Sciences and Systems
Course Title

Special Topics in Information Sciences and Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW1436 - Cloud Deployment & Infrastructure Management

Course Title

Cloud Deployment & Infrastructure Management

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

ITNW1680 - Coop-Bus Sys Net&tel
Course Title

Coop-Bus Sys Net&tel

Academic Level

Undergraduate

Description

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. This Course May Be Repeated If Topics and Learning Outcomes Vary.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

39

Total Contact Hours

640

Credits

6

Semester Credit Hours

6

ITNW2312 - Routers
Course Title

Routers

Academic Level

Undergraduate

Description

Router configuration for local area networks and wide area networks. Includes Internet Protocol (IP) addressing techniques and intermediate routing protocols.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ITNW1325 - Fundamentals of Networking Technologies (3)
  - ITNW2321 - Networking with TCP/IP (3)

ITNW2321 - Networking with TCP/IP
Course Title

Networking with TCP/IP

Academic Level

Undergraduate

Description

Set up, configure, use, and support Transmission Control Protocol/Internet Protocol (TCP/IP) on networking operating systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ITNW1325 - Fundamentals of Networking Technologies (3)

ITNW2335 - Network Troubleshooting and Support
Course Title

Network Troubleshooting and Support

Academic Level

Undergraduate

Description

Troubleshoot and support networks with emphasis on solving real world problems in a hands-on environment. Topics include troubleshooting and research techniques, available resources, and network management hard/software.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITNW2354 - Internet/Intranet Server (3)
    - ITCC2320 - CCNA 3: Enterprise Networking, Security , and Automation (3)

ITNW2350 - Enterprise Network
Course Title

Enterprise Network

Academic Level

Undergraduate

Description

A case study in Convergence Technologies requiring a network engineer to study a problem and design a network solution for an enterprise network.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSY2301 - Firewalls and Network Security (3)

ITNW2352 - Administering SQL Server
Course Title

Administering SQL Server

Academic Level

Undergraduate

Description

Administering SQL Server is a skills development course in the installation, configuration, administration, and troubleshooting of SQL Servers client/server database management system version.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW2354 - Internet/Intranet Server
Course Title

Internet/Intranet Server

Academic Level

Undergraduate

Description

Advanced concepts in the designing, installing, and administration of an Internet/Intranet server.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITNW1345 - Implementing Network Directory Services (3)
    - ITSC1316 - Linux Installation and Configuration (3)

ITNW2355 - Server Virtualization
Course Title

Server Virtualization

Academic Level

Undergraduate

Description

An in-depth study of the installation, configuration, management and troubleshooting of a virtualized server environment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - ITNW1345 - Implementing Network Directory Services (3)
    - ITNW1354 - Implementing and Supporting Servers (3)

ITNW2356 - Designing a Network Directory Infrastructure
Course Title

Designing a Network Directory Infrastructure

Academic Level

Undergraduate

Description

Design, implement, and support a network directory infrastructure in a multi-domain environment. null null

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW2376 - Cloud Deployment & Infrastructure Management
Course Title

Cloud Deployment & Infrastructure Management

Academic Level

Undergraduate

Description

Deployment and management of scalable data centers, public and private cloud infrastructures, co-location strategies, energy consumption calculation, and disaster recovery planning using open source and commercial software.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITNW2380 - Cooperative Education - Computer Systems Networking and Telecommunications
Course Title

Cooperative Education - Computer Systems Networking and Telecommunications

Academic Level

Undergraduate

Description

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.

Students are required to complete a total of 320 hrs per semester, 1 hour online and 19 hours per week on-site. Agreement between Employer and Student required prior to enrolling in course.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

19

Total Contact Hours

320

Credits

3

Semester Credit Hours

3

ITNW2427 - Advanced Cloud Concepts
Course Title

Advanced Cloud Concepts

Academic Level

Undergraduate

Description

Focus on enterprise Cloud architecture, with advanced topics including multi-Cloud platforms inclusive of computing, networking, storage, monitoring and database.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - ITNW1436 - Cloud Deployment & Infrastructure Management (4)

ITNW2429 - Application Development for The Cloud

Course Title

Application Development for The Cloud

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - ITNW1436 - Cloud Deployment & Infrastructure Management (4)

ITSE1001 - Web Design Tools
Course Title

Web Design Tools

Academic Level

Continuing Education

Description

Designing and publishing Web documents according to World Wide Web Consortium (W3C) standards. Includes graphic design issues and exploration of tools available for creating and editing Web documents.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ITSE1002 - Intro to Computer Programming
Course Title

Intro to Computer Programming

Academic Level

Continuing Education

Description

Introduction to computer programming with emphasis on the fundamentals of design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files.

Lecture Hours

8

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

128

Semester Credit Hours

0

ITSE1007 - Intro to C++ Programming
Course Title

Intro to C++ Programming

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ITSE1045 - Introduction to Oracle Sql
Course Title

Introduction to Oracle Sql

Academic Level

Continuing Education

Description

An introduction to the design and creation of relational databases using Oracle. Topics include storing, retrieving, updating, and displaying data using Structured Query Language (SQL).

Lecture Hours

8

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

128

Semester Credit Hours

0

ITSE1091 - St in Computer Programming
Course Title

St in Computer Programming

Academic Level

Continuing Education

Description

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.

Lecture Hours

7

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

112

Semester Credit Hours

0

ITSE1094 - Special Topics in Computer Science
Course Title

Special Topics in Computer Science

Academic Level

Continuing Education

Description

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.

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

ITSE1301 - Web Design Tools
Course Title

Web Design Tools

Academic Level

Undergraduate

Description

Designing and publishing Web documents according to World Wide Web Consortium (W3C) standards. Emphasis on optimization of graphics and images and exploration of tools available for creating and editing Web documents.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE1302 - Computer Programming
Course Title

Computer Programming

Academic Level

Undergraduate

Description

Introduction to computer programming including design, development, testing, implementation, and documentation.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE1303 - Introduction to MySQL
Course Title

Introduction to MySQL

Academic Level

Undergraduate

Description

Introduction to fundamentals of SQL and relational databases.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE1306 - PHP Programming

Course Title

PHP Programming

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ITSE2302 - Intermediate Web Programming (3)

Corequisites

- Completed or concurrently enrolled in:
  - ITSE1303 - Introduction to MySQL (3)

ITSE1307 - Introduction to C++ Programming
Course Title

Introduction to C++ Programming

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE1311 - Beginning Web Programming
Course Title

Beginning Web Programming

Academic Level

Undergraduate

Description

Skills development in web programming including mark-up and scripting languages.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE1329 - Programming Logic and Design

Course Title

Programming Logic and Design

Academic Level

Undergraduate

Description

Problem-solving applying structured techniques and representation of algorithms using design tools. Includes testing, evaluation, and documentation.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE1330 - Introduction to C# Programming

Course Title

Introduction to C# Programming

Academic Level

Undergraduate

Description

A study of C# syntax including data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INEW2338 - Advanced Java Programming (3)

ITSE1332 - Introduction to Visual Basic.NET Programming

Course Title

Introduction to Visual Basic.NET Programming

Academic Level

Undergraduate

Description

Introduction to Visual Basic.NET (VB.NET) including data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE1333 - Mobile Applications Development

Course Title

Mobile Applications Development

Academic Level

Undergraduate

Description

An overview of different mobile platforms and their development environments.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSE2317 - Java Programming (3)

ITSE1350 - System Analysis and Design
Course Title

System Analysis and Design

Academic Level

Undergraduate

Description

Introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE1359 - Introduction to Scripting Languages
Course Title

Introduction to Scripting Languages

Academic Level

Undergraduate

Description

Introduction to scripting languages including basic data types, control structures, regular expressions, input/output, and textual analysis. Topics may adapt to changes in industry practices.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE1373 - Intro to Python
Course Title

Intro to Python

Academic Level

Undergraduate

Description

This course will introduce Python Programming

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- o INEW2338 - Advanced Java Programming (3)

ITSE1391 - Graphics Systems Development
Course Title

Graphics Systems Development

Academic Level

Undergraduate

Description

Topics address the development of client websites in a group format. Includes site design and development from conception to production.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ITSE1392 - Special Topics in Computer Programming
Course Title

Special Topics in Computer Programming

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE1394 - Special Topics in Computer Science
Course Title

Special Topics in Computer Science

Academic Level

Undergraduate

Description

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. Course focus will be on current and emerging web technologies.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE2031 - Advanced C++programming
Course Title

Advanced C++programming

Academic Level

Continuing Education

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

ITSE2054 - Advanced Oracle Pl/Sql

Course Title

Advanced Oracle Pl/Sql

Academic Level

Continuing Education

Description

A continuation of Oracle SQL. Topics include hierarchical queries, set based queries, correlated subqueries, scripting, and scripting generation.

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

ITSE2302 - Intermediate Web Programming

Course Title

Intermediate Web Programming

Academic Level

Undergraduate

Description

Server-side and client-side techniques for Web development.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSE1311 - Beginning Web Programming (3)

ITSE2309 - Database Programming

Course Title

Database Programming

Academic Level

Undergraduate

Description

Database development using database programming techniques emphasizing database structures, modeling, and database access.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE2313 - Web Authoring

Course Title

Web Authoring

Academic Level

Undergraduate

Description

Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - IMED1316 - Web Design I (3)

ITSE2317 - Java Programming

Course Title

Java Programming

Academic Level

Undergraduate

Description

Introduction to object-oriented Java programming including the fundamental syntax and semantics of Java for applications and web applets.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ITSE1302 - Computer Programming (3)

ITSE2331 - Advanced C++ Programming
Course Title

Advanced C++ Programming

Academic Level

Undergraduate

Description

Further application of C++ programming techniques including file access, abstract data structures, class inheritance, and other advanced techniques.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITSE2333 - Implementing a Database on Microsoft SQL Server
Course Title

Implementing a Database on Microsoft SQL Server

Academic Level

Undergraduate

Description

Skills development in the implementation of a database solution using Microsoft SQL Server client/server database management system.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSE2309 - Database Programming (3)

ITSE2343 - Advanced Mobile Programming

Course Title

Advanced Mobile Programming

Academic Level

Undergraduate

Description

Programming for mobile devices including file access methods, data structures, modular programming, program testing and documentation.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ITSE1333 - Mobile Applications Development (3)

ITSE2353 - Advanced C# Programming

Course Title

Advanced C# Programming

Academic Level

Undergraduate

Description

Continuation of C# programming using advanced features of the .NET Framework Class Library.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ITSE1330 - Introduction to C# Programming (3)

ITSE2359 - Advanced Computer Programming
__Course Title__

Advanced Computer Programming

__Academic Level__

Undergraduate

__Description__

Advanced programming techniques including file access methods, data structures, modular programming, program testing and documentation.

__Lecture Hours__

2

__Lab Hours__

4

__Ext. Con. Hrs__

0

__Total Contact Hours__

96

__Credits__

3

__Semester Credit Hours__

3

__Prerequisites__

- Complete all of the following
  - Complete the following:
    - ITSE2333 - Implementing a Database on Microsoft SQL Server (3)
  - Complete at least 1 of the following:
    - ITSE2353 - Advanced C# Programming (3)
    - ITSE2373 - Advanced Python (3)

ITSE2373 - Advanced Python

Course Title

Advanced Python

Academic Level

Undergraduate

Description

This course will introduce advanced concepts of Python programming. Students will use python in conjunction with a cloud based database system to build programs for the CLoud.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSE1373 - Intro to Python (3)

ITSE2380 - Cooperative Education - Computer Programming/Programmer, General

Course Title

Cooperative Education - Computer Programming/Programmer, General

Academic Level

Undergraduate

Description

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.

We have moved to the internship course in place of the COOP for CPT. ITSE 2386.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

19

Total Contact Hours

320

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete the following:
        - ITSE2333 - Implementing a Database on Microsoft SQL Server (3)
    - Complete at least 1 of the following:
        - ITSE2353 - Advanced C# Programming (3)
        - ITSE2373 - Advanced Python (3)

ITSE2386 - Internship - Computer Programming/Programmer, General
Course Title

Internship - Computer Programming/Programmer, General

Academic Level

Undergraduate

Description

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.

Students are required to complete 144 hrs total in the semester. It is recomended that a student completes 10 hours a week. The position and company must be pre-approved before a student signs up for the internship class. Employer reviews and hour logs are required.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

9

Total Contact Hours

144

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete the following:
        - ITSE2333 - Implementing a Database on Microsoft SQL Server (3)
    - Complete at least 1 of the following:
        - ITSE2353 - Advanced C# Programming (3)
        - ITSE2373 - Advanced Python (3)

Emergency Medical Technology

EMSP1008 - Emergency Vehicle Operations
Course Title

Emergency Vehicle Operations

Academic Level

Continuing Education

Description

Instruction, demonstration, and driving range practice to prepare drivers of emergency vehicles to operate their vehicles safely in the emergency and non-emergency mode.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

EMSP1019 - Cpr Basic Life Support
Course Title

Cpr Basic Life Support

Academic Level

Continuing Education

Description

Instruction in lifesaving skills of respiratory (choking and near-drowning) and cardiac emergencies involving adults, children, and infants. Must meet requirements of certifying agency. Additional topics covered will include basic first aid certification training.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

8

Semester Credit Hours

0

EMSP1020 - Cpr Basic Life Support - Adult
Course Title

Cpr Basic Life Support - Adult

Academic Level

Continuing Education

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

10

Semester Credit Hours

0

EMSP1043 - Emergency Med Intermediate
Course Title

Emergency Med Intermediate

Academic Level

Continuing Education

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

36

Semester Credit Hours

0

EMSP1049 - Pre Hospital Life Support
Course Title

Pre Hospital Life Support

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

EMSP1067 - EMT Practicum Paramedic Part1
Course Title

EMT Practicum Paramedic Part1

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

7

Total Contact Hours

112

Semester Credit Hours

0

EMSP1068 - EMS Practicum Paramedic-II
Course Title

EMS Practicum Paramedic-II

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

7

Total Contact Hours

112

Semester Credit Hours

0

EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)
Course Title

Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

8

Total Contact Hours

128

Credits

2

Semester Credit Hours

2

Corequisites

- Complete the following:
  - EMSP1501 - Emergency Medical Technician (5)
  - EMSP2237 - Emergency Procedures (2)

EMSP1355 - Trauma Management

Course Title

Trauma Management

Academic Level

Undergraduate

Description

Knowledge and skills in the assessment and management of patients with traumatic injuries.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - EMSP1501 - Emergency Medical Technician (5)
    - EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (2)
    - EMSP2237 - Emergency Procedures (2)

Corequisites

- Complete the following:
    - EMSP1356 - Patient Assessment and Airway Management (3)
    - EMSP1438 - Introduction to Advanced Practice (4)

EMSP1356 - Patient Assessment and Airway Management
Course Title

Patient Assessment and Airway Management

Academic Level

Undergraduate

Description

Knowledge and skills required to perform patient assessment, airway management, and artificial ventilation.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - EMSP1501 - Emergency Medical Technician (5)
    - EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (2)
    - EMSP2237 - Emergency Procedures (2)

Corequisites

- Complete the following:
    - EMSP1355 - Trauma Management (3)
    - EMSP1438 - Introduction to Advanced Practice (4)

EMSP1438 - Introduction to Advanced Practice
Course Title

Introduction to Advanced Practice

Academic Level

Undergraduate

Description

Fundamental elements associated with emergency medical services to include preparatory practices, pathophysiology, medication administration, and related topics.

Lecture Hours

3

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

112

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - EMSP1501 - Emergency Medical Technician (5)
    - EMSP2237 - Emergency Procedures (2)
    - EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (2)

Corequisites

- Complete the following:
    - EMSP1355 - Trauma Management (3)
    - EMSP1356 - Patient Assessment and Airway Management (3)

EMSP1501 - Emergency Medical Technician
Course Title

Emergency Medical Technician

Academic Level

Undergraduate

Description

Preparation for certification as an Emergency Medical Technician (EMT).

Lecture Hours

3

Lab Hours

8

Ext. Con. Hrs

0

Total Contact Hours

176

Credits

5

Semester Credit Hours

5

Corequisites

- Complete the following:
    - EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (2)
    - EMSP2237 - Emergency Procedures (2)

EMSP2000 - Methods of Teaching- Emergency Med Train
Course Title

Methods of Teaching- Emergency Med Train

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

EMSP2037 - Emergency Procedures

Course Title

Emergency Procedures

Academic Level

Continuing Education

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

60

Semester Credit Hours

0

EMSP2143 - Assessment Based Management
Course Title

Assessment Based Management

Academic Level

Undergraduate

Description

A summarative experience covering comprehensive, assessment-based patient care management for the paramedic level.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

1

Semester Credit Hours

1

Prerequisites

- Complete the following:
    - EMSP2444 - Cardiology (4)
    - EMSP2330 - Special Populations (3)
    - EMSP2434 - Medical Emergencies (4)

Corequisites

- Complete the following:
    - EMSP2168 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2205 - EMS Operations (2)
    - EMSP2262 - Clinical - Emergency Medical Technology/Technician (emt Paramedic) (2)
    - EMSP2206 - Emergency Pharmacology (2)

EMSP2161 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)
Course Title

Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

6

Total Contact Hours

96

Credits

1

Semester Credit Hours

1

Prerequisites

- Complete the following:
    - EMSP1438 - Introduction to Advanced Practice (4)
    - EMSP1355 - Trauma Management (3)
    - EMSP1356 - Patient Assessment and Airway Management (3)

Corequisites

- Complete the following:
    - EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2434 - Medical Emergencies (4)
    - EMSP2330 - Special Populations (3)
    - EMSP2444 - Cardiology (4)

EMSP2162 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)
Course Title

Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

5

Total Contact Hours

80

Credits

1

Semester Credit Hours

1

EMSP2163 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)
Course Title

Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

6

Total Contact Hours

96

Credits

1

Semester Credit Hours

1

EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)
Course Title

Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

7

Total Contact Hours

112

Credits

1

Semester Credit Hours

1

Prerequisites

- Complete the following:
    - EMSP1356 - Patient Assessment and Airway Management (3)
    - EMSP1438 - Introduction to Advanced Practice (4)
    - EMSP1355 - Trauma Management (3)

Corequisites

- Complete the following:
    - EMSP2434 - Medical Emergencies (4)
    - EMSP2444 - Cardiology   (4)
    - EMSP2330 - Special Populations (3)
    - EMSP2161 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (1)

EMSP2168 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)
Course Title

Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

7

Total Contact Hours

112

Credits

1

Semester Credit Hours

1

Prerequisites

- Complete the following:
    - EMSP2161 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)

Corequisites

- Complete the following:
    - EMSP2143 - Assessment Based Management (1)
    - EMSP2205 - EMS Operations (2)
    - EMSP2262 - Clinical - Emergency Medical Technology/Technician (emt Paramedic) (2)
    - EMSP2206 - Emergency Pharmacology (2)

EMSP2169 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)

Course Title

Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic)

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Additional Course Information

Students are required to complete 112 hours total in the semester. It is recommended that a student completes 7 hours a week for the 15 week semester.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

7

Total Contact Hours

112

Credits

1

Semester Credit Hours

1

Prerequisites

- Complete the following:
  - EMSP2168 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
  - EMSP2262 - Clinical - Emergency Medical Technology/Technician (emt Paramedic) (2)

EMSP2205 - EMS Operations
Course Title

EMS Operations

Academic Level

Undergraduate

Description

Knowledge and skills to safely manage incidents and rescue situations; utilize air medical resources; identify hazardous materials and other specialized incidents.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - EMSP2444 - Cardiology (4)
    - EMSP2434 - Medical Emergencies (4)
    - EMSP2330 - Special Populations (3)

Corequisites

- Complete the following:
    - EMSP2143 - Assessment Based Management (1)
    - EMSP2206 - Emergency Pharmacology (2)
    - EMSP2262 - Clinical - Emergency Medical Technology/Technician (emt Paramedic) (2)
    - EMSP2168 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)

EMSP2206 - Emergency Pharmacology

Course Title

Emergency Pharmacology

Academic Level

Undergraduate

Description

A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages.

Course Options

- Complete the following:
    - EMSP2143 - Assessment Based Management (1)
    - EMSP2205 - EMS Operations (2)
    - EMSP2262 - Clinical - Emergency Medical Technology/Technician (emt Paramedic) (2)
    - EMSP2168 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)

Lecture Hours

2

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - EMSP2444 - Cardiology (4)
    - EMSP2330 - Special Populations (3)
    - EMSP2434 - Medical Emergencies (4)

EMSP2237 - Emergency Procedures

Course Title

Emergency Procedures

Academic Level

Undergraduate

Description

Application of emergency medical procedures.

Lecture Hours

0

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

2

Semester Credit Hours

2

Corequisites

- Complete the following:
    - EMSP1261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (2)
    - EMSP1501 - Emergency Medical Technician (5)

EMSP2262 - Clinical - Emergency Medical Technology/Technician (emt Paramedic)
Course Title

Clinical - Emergency Medical Technology/Technician (emt Paramedic)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

6

Total Contact Hours

96

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - EMSP2161 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)

Corequisites

- Complete the following:
    - EMSP2143 - Assessment Based Management (1)
    - EMSP2205 - EMS Operations (2)
    - EMSP2206 - Emergency Pharmacology (2)
    - EMSP2168 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)

EMSP2330 - Special Populations
<ins>Course Title</ins>

Special Populations

<ins>Academic Level</ins>

Undergraduate

<ins>Description</ins>

Knowledge and skills necessary to assess and manage ill or injured patients in diverse populations to include neonatology, pediatrics, geriatrics, and other related topics.

<ins>Lecture Hours</ins>

2

<ins>Lab Hours</ins>

3

<ins>Ext. Con. Hrs</ins>

0

<ins>Total Contact Hours</ins>

80

<ins>Credits</ins>

3

<ins>Semester Credit Hours</ins>

3

<ins>Prerequisites</ins>

- Complete the following:
    - EMSP1356 - Patient Assessment and Airway Management (3)
    - EMSP1355 - Trauma Management (3)
    - EMSP1438 - Introduction to Advanced Practice (4)

<ins>Corequisites</ins>

- Complete the following:
    - EMSP2161 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2434 - Medical Emergencies (4)
    - EMSP2444 - Cardiology (4)

EMSP2434 - Medical Emergencies
Course Title

Medical Emergencies

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

112

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - EMSP1356 - Patient Assessment and Airway Management (3)
    - EMSP1355 - Trauma Management (3)
    - EMSP1438 - Introduction to Advanced Practice (4)

Corequisites

- Complete the following:
    - EMSP2161 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2330 - Special Populations (3)
    - EMSP2444 - Cardiology (4)

EMSP2444 - Cardiology
Course Title

Cardiology

Academic Level

Undergraduate

Description

Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - EMSP1356 - Patient Assessment and Airway Management (3)
    - EMSP1355 - Trauma Management (3)
    - EMSP1438 - Introduction to Advanced Practice (4)

Corequisites

- Complete the following:
    - EMSP2161 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2167 - Practicum (or Field Experience) - Emergency Medical Technology/Technician (EMT Paramedic) (1)
    - EMSP2434 - Medical Emergencies (4)
    - EMSP2330 - Special Populations (3)

Energy

ENER1050 - Overview of Energy Industry

Course Title

Overview of Energy Industry

Academic Level

Continuing Education

Description

Introduction to the major sectors of the energy industry. Includes a comparison of energy industry careers.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

ENER1430 - Basic Mechanical Skills for Energy

Course Title

Basic Mechanical Skills for Energy

Academic Level

Undergraduate

Description

Basic mechanical skills useing hand and power tools in an industrial environment. Topics inlcude tool use and maintenance, lubrication, measuring, threads and fasteners, bench works, basic mechanical drawings, and basic shop calculations (English and metric). Also addresses rigging procedures to include chain falls, jacks, cable, fulcrum, port-a-power, and come-alongs.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

ENER2325 - SCADA and Networking
Course Title

SCADA and Networking

Academic Level

Undergraduate

Description

Topics in Supervisory Control and Data Acquisition (SCADA) systems, Industrial Ethernet communications systems as they apply to industry.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - CETT1325 - Digital Fundamentals (3)

Engineering

ENTC1091 - Top Search Engine
Course Title

Top Search Engine

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ENTC1349 - Reliability and Maintainability
Course Title

Reliability and Maintainability

Academic Level

Undergraduate

Description

Equipment reliability and maintainability. Includes development and assessment of maintenance programs.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ENTC1371 - Engineering Computer Graphics I
Course Title

Engineering Computer Graphics I

Academic Level

Undergraduate

Description

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 of 3D models. Solid Edge Modeling Software will be utilized.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ENTC2310 - Machine Design

Course Title

Machine Design

Academic Level

Undergraduate

Description

Design considerations for machinery. Includes selection of mechanical components and machine construction principles.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete the following:
        - MCHN1326 - Introduction to Computer-Aided Manufacturing (CAM) (3)
    - Completed or concurrently enrolled in at leastof the following:
        - MCHN2341 - Advanced Machining I (3)
        - MCHN2441 - Advanced Machining I (4)

English

ENGL1301 - Composition I
Course Title

Composition I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ENGL1302 - Composition II

Course Title

Composition II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ENGL1301 - Composition I (3)

ENGL2311 - Technical & Business Writing

Course Title

Technical & Business Writing

Academic Level

Undergraduate

Description

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

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ENGL2314 - Technical & Business Writing I
Course Title

Technical & Business Writing I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ENGL2321 - British Literature

Course Title

British Literature

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ENGL1301 - Composition I (3)

ENGL2322 - British Literature I
Course Title

British Literature I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ENGL2323 - British Literature II
Course Title

British Literature II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

ENGL2326 - American Literature (single-Semester Course)

Course Title

American Literature (single-Semester Course)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ENGL1301 - Composition I (3)

ENGL2331 - World Literature

Course Title

World Literature

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ENGL1301 - Composition I (3)

ENGL2341 - Forms of Literature
Course Title

Forms of Literature

Academic Level

Undergraduate

Description

The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Environmental & Pollution Control

EPCT1001 - Hazwoper
Course Title

Hazwoper

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

EPCT1022 - OnlineHazardousCommunication
Course Title

OnlineHazardousCommunication

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

1

Total Contact Hours

12

Semester Credit Hours

0

EPCT1053 - Hazardous Materials Technician
Course Title

Hazardous Materials Technician

Academic Level

Continuing Education

Description

Technical instruction in the storage and handling of hazardous materials; Occupational Safety and Health Administration (OSHA) regulations; notification procedures associated with emergency response plans; labeling; manifesting; placarding; spill containment; and proper use of personal protective equipment and instrumentation. Meets federal regulations.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

EPCT1054 - Asbestos Worker
Course Title

Asbestos Worker

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

EPCT1056 - Asbestos Worker Refresher
Course Title

Asbestos Worker Refresher

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

EPCT1057 - Asbestos Contractor & Supervisor
Course Title

Asbestos Contractor & Supervisor

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

EPCT1059 - Hazwoper Refresher - Osha 29CFR-1910.120
Course Title

Hazwoper Refresher - Osha 29CFR-1910.120

Academic Level

Continuing Education

Description

A refresher course covering the requirements for Hazardous Waste Operations and Emergency Response as found in OSHA 29CFR-1910.120.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

8

Semester Credit Hours

0

EPCT1091 - Mms T-2 Training
Course Title

Mms T-2 Training

Academic Level

Continuing Education

Lecture Hours

7

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

112

Semester Credit Hours

0

EPCT1205 - Environmental Regulations Overview
Course Title

Environmental Regulations Overview

Academic Level

Undergraduate

Description

An introduction to the history of the environmental movement, including basic requirements for compliance with the environmental regulations.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

EPCT1243 - Treatment, Remediation, and Disposal Techniques
Course Title

Treatment, Remediation, and Disposal Techniques

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

EPCT1301 - Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics
Course Title

Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

EPCT1307 - Introduction to Environmental Safety and Health
Course Title

Introduction to Environmental Safety and Health

Academic Level

Undergraduate

Description

A historic overview of environmental safety and health. Emphasis on the use of occupational safety and health codes.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

EPCT1344 - Environmental Sampling and Analysis
Course Title

Environmental Sampling and Analysis

Academic Level

Undergraduate

Description

Sampling protocol, procedures, quality control, preservation technology, and field analysis. Emphasis on analysis commonly performed by the field technician.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

EPCT2015 - Water Laboratory
Course Title

 Water Laboratory

Academic Level

 Continuing Education

Lecture Hours

 0

Lab Hours

 0

Ext. Con. Hrs

 0

Total Contact Hours

 0

Semester Credit Hours

 0

EPCT2050 - Wastewater Treatment
Course Title

 Wastewater Treatment

Academic Level

 Continuing Education

Lecture Hours

 0

Lab Hours

 0

Ext. Con. Hrs

 0

Total Contact Hours

 0

Semester Credit Hours

 0

EPCT2055 - Water Rules and Regulations

Course Title

Water Rules and Regulations

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

EPCT2331 - Industrial Hygiene Applications

Course Title

Industrial Hygiene Applications

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

EPCT2337 - Site Assessment

Course Title

Site Assessment

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Environmental Health

PTAC1302 - Introduction to Process Technology
Course Title

Introduction to Process Technology

Academic Level

Undergraduate

Description

An introduction overview of the processing industries.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

PTAC1308 - Safety, Health, and Environment I
Course Title

Safety, Health, and Environment I

Academic Level

Undergraduate

Description

An overview of safety, health, and environmental issues in the performance of all job tasks in process industries.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PTAC1310 - Process Technology I - Equipment
Course Title

Process Technology I - Equipment

Academic Level

Undergraduate

Description

Introduction to the use of common processing equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PTAC1332 - Process Instrumentation I
Course Title

Process Instrumentation I

Academic Level

Undergraduate

Description

Study of the instruments and control systems used in the process industry including terminology, process variables, symbology, control loops, and basic troubleshooting.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PTAC1410 - Process Technology I - Equipment

Course Title

Process Technology I - Equipment

Academic Level

Undergraduate

Description

Instruction in the use of common process equipment.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - PTAC1332 - Process Instrumentation I (3)

PTAC1454 - Industrial Processes
Course Title

Industrial Processes

Academic Level

Undergraduate

Description

The study of the common types of industrial processes.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

PTAC2314 - Principles of Quality
Course Title

Principles of Quality

Academic Level

Undergraduate

Description

Study of the background and application of quality concepts. Topics include team skills, quality tools, statistics, economics and continuous improvement.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

PTAC2336 - Process Instrumentation II

Course Title

Process Instrumentation II

Academic Level

Undergraduate

Description

Continued study of the instruments and control systems used in the process industries including terminology, process variables, symbology, control loops, and troubleshooting.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PTAC2346 - Process Troubleshooting

Course Title

Process Troubleshooting

Academic Level

Undergraduate

Description

Instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PTAC2386 - Internship - Process Technology/Technician
Course Title

Internship - Process Technology/Technician

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

18

Total Contact Hours

288

Credits

3

Semester Credit Hours

3

PTAC2387 - Internship - Process Technology/Technician
Course Title

Internship - Process Technology/Technician

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

18

Total Contact Hours

288

Credits

3

Semester Credit Hours

3

PTAC2420 - Process Technology II - Systems
Course Title

Process Technology II - Systems

Academic Level

Undergraduate

Description

A study of various process systems including related scientific principles.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - PTAC1410 - Process Technology I - Equipment (4)

PTAC2438 - Process Technology III - Operations
Course Title

Process Technology III - Operations

Academic Level

Undergraduate

Description

This course emphasizes activities associated with the hands-on operations of process equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

PTAC2446 - Process Troubleshooting
Course Title

Process Troubleshooting

Academic Level

Undergraduate

Description

Instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Food & Beverage/Restaurant Management

RSTO1301 - Beverage Management
Course Title

Beverage Management

Academic Level

Undergraduate

Description

A study of the beverage service of the hospitality industry including spirits, wines, beers, and non alcoholic beverages. Topics include purchasing, resource control, legislation, marketing, physical plant requirements, staffing, service, and the selection of wines to enhance foods.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

RSTO1304 - Dining Room Service
Course Title

Dining Room Service

Academic Level

Undergraduate

Description

Introduces the principles, concepts, and systems of professional table service. Topics include dining room organization, scheduling, and management of food service personnel.

Lecture Hours

1

Lab Hours

7

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete at least 1 of the following:
        - CHEF1205 - Sanitation and Safety (2)
        - CHEF1305 - Sanitation and Safety (3)
    - Complete the following:
        - IFWA1401 - Food Preparation I (4)

RSTO1313 - Hospitality Supervision
Course Title

Hospitality Supervision

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

RSTO1325 - Purchasing for Hospitality Operations

Course Title

Purchasing for Hospitality Operations

Academic Level

Undergraduate

Description

Study of purchasing and inventory management of foods and other supplies to include development of purchase specifications, determination of order quantities, formal and informal price comparisons, proper receiving procedures, storage management, and issue procedures. Emphasis on product cost analysis, yields, pricing formulas, controls, and record keeping at each stage of the purchasing cycle.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

RSTO1380 - Cooperative Education - Restaurant, Culinary, and Catering Management/Manager
Course Title

Cooperative Education - Restaurant, Culinary, and Catering Management/Manager

Academic Level

Undergraduate

Description

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.

Additional Course Information

Students are required to complete 320hours total (16 lecture/304 coop) in the semester. It is recommended that a student completes 19 coop hours and 1 lecture hour a week for the 15 week semester.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

19

Total Contact Hours

320

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete at least 1 of the following:
        - CHEF1205 - Sanitation and Safety (2)
        - CHEF1305 - Sanitation and Safety (3)
    - Complete the following:
        - IFWA1401 - Food Preparation I (4)

RSTO1680 - Cooperative Education - Restaurant, Culinary, and Catering Management/Manager

Course Title

Cooperative Education - Restaurant, Culinary, and Catering Management/Manager

Academic Level

Undergraduate

Description

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.

Additional Course Information

Students are required to complete 640 hours total (16 lecture/624 coop) in the semester. It is recommended that a student completes 39 coop hours and 1 lecture hour a week for the 15 week semester.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

39

Total Contact Hours

640

Credits

6

Semester Credit Hours

6

Prerequisites

- Complete all of the following
    - Complete 1 of the following
        - Complete the following:
            - CHEF1441 - American Regional Cuisine (4)
            - CHEF1445 - International Cuisine (4)
        - Complete the following:
            - IFWA2341 - Specialized Food Preparation (3)
    - Complete the following:
        - IFWA1217 - Food Production and Planning (2)
        - RSTO1313 - Hospitality Supervision (3)

RSTO2301 - Principles of Food & Beverage Controls
Course Title

Principles of Food & Beverage Controls

Academic Level

Undergraduate

Description

A study of financial principles and controls of food service operation including review of operation policies and procedures. Topics include financial budgeting and cost analysis emphasizing food and beverage labor costs, operational analysis, and international and regulatory reporting procedures.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

RSTO2407 - Catering
Course Title

Catering

Academic Level

Undergraduate

Description

Principles, techniques, and applications for both on-premises, off-premises, and group marketing of catering operations including food preparation, holding, and transporting techniques.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

RSTO2505 - Management of Food Production and Service
Course Title

Management of Food Production and Service

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

9

Ext. Con. Hrs

0

Total Contact Hours

176

Credits

5

Semester Credit Hours

5

Prerequisites

- Complete all of the following
    - Complete 1 of the following
        - Complete the following:
            - CHEF1441 - American Regional Cuisine (4)
            - CHEF1445 - International Cuisine (4)
        - Complete the following:
            - IFWA2341 - Specialized Food Preparation (3)
    - Complete the following:
        - IFWA1217 - Food Production and Planning (2)
        - RSTO1313 - Hospitality Supervision (3)

Geography

GEOG1302 - Human Geography

Course Title

Human Geography

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

GEOG1303 - World Regional Geography
<u>Course Title</u>

World Regional Geography

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

48

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

Geology

GEOL1403 - Physical Geology
Course Title

Physical Geology

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Government

GOVT2305 - Federal Government (Federal constitution & topics)
Course Title

Federal Government (Federal constitution & topics)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

GOVT2306 - Texas Government (Texas constitution & topics)
Course Title

Texas Government (Texas constitution & topics)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Graphic Design, Comm Art & Ill

ARTC1302 - Digital Imaging I
Course Title

Digital Imaging I

Academic Level

Undergraduate

Description

Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ARTC1305 - Basic Graphic Design
Course Title

Basic Graphic Design

Academic Level

Undergraduate

Description

Graphic design with emphasis on the visual communication process. Topics include basic terminology and graphic design principles.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ARTC1310 - Design Concepts

Course Title

Design Concepts

Academic Level

Undergraduate

Description

Fundamental techniques in conceptualizing. Includes all procedures from initial research to creating strategies to finalize a solution.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - GRPH1359 - Vector Graphics for Production (3)

Corequisites

- Completed or concurrently enrolled in:
  - ARTC2313 - Digital Publishing II (3)

ARTC1313 - Digital Publishing I
<u>**Course Title**</u>

Digital Publishing I

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - ARTC1302 - Digital Imaging I (3)

ARTC1317 - Design Communication I
Course Title

Design Communication I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ARTC1327 - Typography
Course Title

Typography

Academic Level

Undergraduate

Description

A study of letterforms and typographic concepts as elements of graphic communication. Emphasis on developing a current, practical typographic knowledge based on industry standards.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ARTC1349 - Art Direction I

Course Title

Art Direction I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ARTC1327 - Typography (3)
    - GRPH1359 - Vector Graphics for Production (3)

ARTC1353 - Computer Illustration
Course Title

Computer Illustration

Academic Level

Undergraduate

Description

Use of the tools and transformation options of an industry-standard vector drawing program to create complex illustrations or drawings.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ARTC1359 - Visual Design for New Media

Course Title

Visual Design for New Media

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ARTC1349 - Art Direction I (3)

Corequisites

- Completed or concurrently enrolled in:
    - ARTC2313 - Digital Publishing II (3)

ARTC2005 - Digital Imaging II

Course Title

Digital Imaging II

Academic Level

Continuing Education

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

ARTC2305 - Digital Imaging II
Course Title

Digital Imaging II

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ARTC1302 - Digital Imaging I (3)

ARTC2313 - Digital Publishing II

Course Title

Digital Publishing II

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ARTC1313 - Digital Publishing I (3)

ARTC2317 - Typographic Design

Course Title

Typographic Design

Academic Level

Undergraduate

Description

Exploration of typographic design including computer generated letterforms as elements of design. Includes theory and techniques of traditional, contemporary, and experimental typography.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ARTC2333 - Publication Design

Course Title

Publication Design

Academic Level

Undergraduate

Description

Development of skills and advanced knowledge of publishing software, with emphasis on the maintenance of visual continuity in documents for publication.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ARTC1359 - Visual Design for New Media (3)

ARTC2335 - Portfolio Development for Graphic Design
Course Title

Portfolio Development for Graphic Design

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ARTC2340 - Computer Illustration II
Course Title

Computer Illustration II

Academic Level

Undergraduate

Description

Advanced use of software applications and/or various media with emphasis on output procedures, the resolution of complex design issues, and concept development.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ARTC2347 - Design Communication II
Course Title

Design Communication II

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ARTC1317 - Design Communication I (3)

ARTC2348 - Digital Publishing III

<u>**Course Title**</u>

Digital Publishing III

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

A project based page layout course from concept to completion addressing design problems, preflight of files, color separations, and trapping techniques.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - ARTC2313 - Digital Publishing II (3)

ARTC2349 - Art Direction II

Course Title

Art Direction II

Academic Level

Undergraduate

Description

Mastery of advanced art direction projects with emphasis on selected topics in advertising campaigns. Includes written, oral, and visual skills.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ARTC1349 - Art Direction I (3)
    - ARTC2313 - Digital Publishing II (3)

ARTC2388 - Internship - Commercial and Advertising Art
Course Title

Internship - Commercial and Advertising Art

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

9

Total Contact Hours

144

Credits

3

Semester Credit Hours

3

ARTC2449 - Art Direction II
Course Title

Art Direction II

Academic Level

Undergraduate

Description

Mastery of advanced art direction projects with emphasis on selected topics in advertising campaigns. Includes written, oral, and visual skills.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Graphics Wecm

GRPH1002 - Introduction to Desktop Publishing
Course Title

Introduction to Desktop Publishing

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

GRPH1359 - Vector Graphics for Production
Course Title

Vector Graphics for Production

Academic Level

Undergraduate

Description

A study and use of vector graphics for production.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

GRPH2309 - Digital Pre-Press
Course Title

Digital Pre-Press

Academic Level

Undergraduate

Description

Theory and techniques for pre-press preparation using industry standard software for final file output. Topics include the procedures and problems involved in computer file preparation ranging from trapping, color separations, and resolutions to printing basics and service bureaus.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Health Info

MDCA1054 - Medical Assisting Credentialing Exam Re
Course Title

Medical Assisting Credentialing Exam Re

Academic Level

Continuing Education

Description

A preparation for one of the National Commission for Certifying Agencies (NCCA) recognized Credentialing exams.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

30

Semester Credit Hours

0

MDCA1302 - Human Disease/Pathophysiology
Course Title

Human Disease/Pathophysiology

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

MDCA1313 - Medical Terminology
Course Title

Medical Terminology

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Health Information

HITT1005 - Medical Terminology I
Course Title

 Medical Terminology I

Academic Level

 Continuing Education

Lecture Hours

 0

Lab Hours

 0

Ext. Con. Hrs

 0

Total Contact Hours

 0

Semester Credit Hours

 0

HITT1009 - Hipaa Compliance
Course Title

 Hipaa Compliance

Academic Level

 Continuing Education

Lecture Hours

 0

Lab Hours

 0

Ext. Con. Hrs

 0

Total Contact Hours

 0

Semester Credit Hours

 0

HITT1041 - Coding and Classification Syst
Course Title

Coding and Classification Syst

Academic Level

Continuing Education

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

HITT1204 - IT for Health Professions
Course Title

IT for Health Professions

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

HITT1253 - Legal and Ethical Aspects of Health Information
Course Title

Legal and Ethical Aspects of Health Information

Academic Level

Undergraduate

Description

Concepts of privacy, security, confidentiality, ethics, healthcare legislation, and regulations relating to the maintenance and use of health information.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

HITT1255 - Health Care Statistics
Course Title

Health Care Statistics

Academic Level

Undergraduate

Description

Principles of health care statistics with emphasis in hospital statistics. Skill development in computation and calculation of health data.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

HITT1301 - Health Data Content and Structure
Course Title

Health Data Content and Structure

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HITT1305 - Medical Terminology I
Course Title

Medical Terminology I

Academic Level

Undergraduate

Description

Study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

HITT1311 - Health Information Systems
Course Title

Health Information Systems

Academic Level

Undergraduate

Description

Introduction to health IT standards, health-related data structures, software applications, and enterprise architecture in health care and public health.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HITT1341 - Coding and Classification Systems
Course Title

Coding and Classification Systems

Academic Level

Undergraduate

Description

Fundamentals of coding rules, conventions, and guidelines using clinical classification systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete the following:
        - HPRS2302 - Medical Terminology for Allied Health (3)
    - Completed or concurrently enrolled in:
        - MDCA1302 - Human Disease/Pathophysiology (3)

HITT1342 - Ambulatory Coding
Course Title

 Ambulatory Coding

Academic Level

 Undergraduate

Description

 Fundamentals of ambulatory coding rules, conventions, and guidelines.

Lecture Hours

 2

Lab Hours

 4

Ext. Con. Hrs

 0

Total Contact Hours

 96

Credits

 3

Semester Credit Hours

 3

Prerequisites

- Complete all of the following
    - Complete the following:
        - HPRS2302 - Medical Terminology for Allied Health (3)
    - Completed or concurrently enrolled in:
        - MDCA1302 - Human Disease/Pathophysiology (3)

HITT1345 - Health Care Delivery Systems
Course Title

Health Care Delivery Systems

Academic Level

Undergraduate

Description

Examination of delivery systems including organization, financing, accreditation, licensure, and regulatory agencies.

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

HITT2000 - Electronic Health Records
Course Title

Electronic Health Records

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

2

Semester Credit Hours

0

HITT2035 - Coding & Reimbursement Method
Course Title

Coding & Reimbursement Method

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

HITT2166 - Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician
Course Title

Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

8

Total Contact Hours

128

Credits

1

Semester Credit Hours

1

HITT2249 - RHIT Competency Review
Course Title

RHIT Competency Review

Academic Level

Undergraduate

Description

Review Health Information Technology (HIT) competencies, skills, and knowledge.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

HITT2260 - Clinical - Health Information/Medical Records Technology/Technician
Course Title

Clinical - Health Information/Medical Records Technology/Technician

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

6

Total Contact Hours

96

Credits

2

Semester Credit Hours

2

HITT2266 - Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician

Course Title

Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

14

Total Contact Hours

224

Credits

2

Semester Credit Hours

2

HITT2335 - Coding and Reimbursement Methodologies
<u>**Course Title**</u>

Coding and Reimbursement Methodologies

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
  - HITT1341 - Coding and Classification Systems (3)

HITT2339 - Health Information Organization and Supervision
Course Title

Health Information Organization and Supervision

Academic Level

Undergraduate

Description

Principles of organization and supervision of human, financial, and physical resources.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HITT2346 - Advanced Medical Coding

Course Title

Advanced Medical Coding

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HITT1341 - Coding and Classification Systems (3)
    - HITT1342 - Ambulatory Coding (3)

HITT2360 - Clinical - Health Information/Medical Records Technology/Technician
Course Title

Clinical - Health Information/Medical Records Technology/Technician

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

9

Total Contact Hours

144

Credits

3

Semester Credit Hours

3

HITT2366 - Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician
Course Title

Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

21

Total Contact Hours

336

Credits

3

Semester Credit Hours

3

HITT2443 - Quality Assessment and Performance Improvement

__Course Title__

Quality Assessment and Performance Improvement

__Academic Level__

Undergraduate

__Description__

Study of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation and presentation of data in statistical formats, quality management and performance improvement functions, utilization management, risk management, and medical staff data quality issues. Approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems.

__Lecture Hours__

2

__Lab Hours__

6

__Ext. Con. Hrs__

0

__Total Contact Hours__

128

__Credits__

4

__Semester Credit Hours__

4

Health Professions/Related Science

HPRS1004 - Basic Health Profession Skills
Course Title

Basic Health Profession Skills

Academic Level

Continuing Education

Description

A study of the concepts that serve as the foundation for health profession courses, including client care and safety issues, basic client monitoring, and health documentation methods.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

HPRS1007 - Natural Health and Healing
Course Title

Natural Health and Healing

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

2

Total Contact Hours

24

Semester Credit Hours

0

HPRS1206 - Essentials of Medical Terminology
Course Title

Essentials of Medical Terminology

Academic Level

Undergraduate

Description

A study of medical terminology, word origin, structure, and application.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

HPRS2302 - Medical Terminology for Allied Health
Course Title

Medical Terminology for Allied Health

Academic Level

Undergraduate

Description

A study of medical terminology, word origin, structure, and application with an emphasis on building a professional vocabulary required for employment within the allied health care field.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Heating Air Cond/Ref

HART1000 - Air Condition & Refrigator Duct Installe
Course Title

 Air Condition & Refrigator Duct Installe

Academic Level

 Continuing Education

Lecture Hours

 0

Lab Hours

 7

Ext. Con. Hrs

 0

Total Contact Hours

 112

Semester Credit Hours

 0

HART1010 - Shop Practice & Tools
Course Title

 Shop Practice & Tools

Academic Level

 Continuing Education

Lecture Hours

 0

Lab Hours

 0

Ext. Con. Hrs

 0

Total Contact Hours

 0

Semester Credit Hours

 0

HART1093 - Online Principles SolarTherma
Course Title

Online Principles SolarTherma

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

HART1094 - Air Conditioning,and Refrigeration Mecha
Course Title

Air Conditioning,and Refrigeration Mecha

Academic Level

Continuing Education

Description

Special Topics in Heating, Air conditioning, and Refrigeration Mechanic and Repa

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

HART1256 - EPA Recovery Certification Preparation
Course Title

EPA Recovery Certification Preparation

Academic Level

Undergraduate

Description

Certification training for HVAC refrigerant recovery and recycling. Instruction will provide a review of EPA guidelines for refrigerant recovery and recycling during the installation, service, and repair of all HVAC and refrigerant systems.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

HART1300 - H.V.A.C Duct Fabrication
Course Title

H.V.A.C Duct Fabrication

Academic Level

Undergraduate

Description

Layout and fabrication of HVAC duct systems using common tools and equipment of the trade.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HART1301 - Basic Electricity for HVAC

Course Title

Basic Electricity for HVAC

Academic Level

Undergraduate

Description

Principles of electricity as required by HVAC, including proper use of test equipment, electrical circuits, and component theory and operation.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HART1303 - Air Conditioning Control Principles

Course Title

Air Conditioning Control Principles

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - HART1301 - Basic Electricity for HVAC (3)
  - HART1307 - Refrigeration Principles (3)
  - HART1345 - Gas and Electric Heating (3)

HART1307 - Refrigeration Principles

Course Title

Refrigeration Principles

Academic Level

Undergraduate

Description

An introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, refrigerant handling, refrigeration components, and safety.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HART1310 - HVAC Shop Practices and Tools

Course Title

HVAC Shop Practices and Tools

Academic Level

Undergraduate

Description

Tools and instruments used in the HVAC industry. Includes proper application, use and care of these tools, and tubing and piping practices.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HART1341 - Residential Air Conditioning

Course Title

Residential Air Conditioning

Academic Level

Undergraduate

Description

A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HART1301 - Basic Electricity for HVAC (3)
    - HART1307 - Refrigeration Principles (3)

HART1345 - Gas and Electric Heating

Course Title

Gas and Electric Heating

Academic Level

Undergraduate

Description

Study of the procedures and principles used in servicing heating systems including gas fired furnaces and electric heating systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HART1301 - Basic Electricity for HVAC (3)

Corequisites

- Completed or concurrently enrolled in:
    - HART1301 - Basic Electricity for HVAC (3)

HART1351 - Energy Management

Course Title

Energy Management

Academic Level

Undergraduate

Description

Study of basic heat transfer theory; sensible and latent heat loads; building envelope construction; insulation, lighting, and fenestration types; and conduct energy audit procedures. The course also develops energy audit recommendations based on local utility rates, building use, and construction. Laboratory activities include developing energy audit reports, installing energy saving devices, and measuring energy consumption.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HART1356 - EPA Recovery Certification Preparation
Course Title

EPA Recovery Certification Preparation

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

HART2041 - Commercial Air Conditioning
Course Title

Commercial Air Conditioning

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

HART2301 - Air Conditioning & Refrigeration Codes
Course Title

Air Conditioning & Refrigeration Codes

Academic Level

Undergraduate

Description

HVAC standards and concepts with emphasis on the understanding, and documentation of the codes and regulations required for the state mechanical contractors license and local codes.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HART2302 - Commercial Air Conditioning System Desig
Course Title

Commercial Air Conditioning System Desig

Academic Level

Undergraduate

Description

Advanced study in essential elements of commercial air conditioning contracting including duct systems design; equipment selection using manufacturers' data; and preparation of shop drawings and submittals.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HART2331 - Advanced Electricity for HVAC

Course Title

Advanced Electricity for HVAC

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HART1303 - Air Conditioning Control Principles (3)

HART2334 - Advanced Air Conditioning Controls
Course Title

Advanced Air Conditioning Controls

Academic Level

Undergraduate

Description

Theory and application of electrical control devices, electromechanical controls, and/or pneumatic controls.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HART2336 - Air Conditioning Troubleshooting (3)

HART2336 - Air Conditioning Troubleshooting

__Course Title__

Air Conditioning Troubleshooting

__Academic Level__

Undergraduate

__Description__

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.

__Lecture Hours__

2

__Lab Hours__

4

__Ext. Con. Hrs__

0

__Total Contact Hours__

96

__Credits__

3

__Semester Credit Hours__

3

__Prerequisites__

- Complete the following:
    - HART1303 - Air Conditioning Control Principles (3)
    - HART1345 - Gas and Electric Heating (3)
    - HART1341 - Residential Air Conditioning (3)

HART2338 - Air Conditioning Installation and Startup

Course Title

Air Conditioning Installation and Startup

Academic Level

Undergraduate

Description

A study of air conditioning system installation, refrigerant piping, condensate disposal, and air cleaning equipment with emphasis on startup and performance testing.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HART2341 - Commercial Air Conditioning

Course Title

Commercial Air Conditioning

Academic Level

Undergraduate

Description

A study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HART1303 - Air Conditioning Control Principles (3)
    - HART1341 - Residential Air Conditioning (3)

HART2342 - Commercial Refrigeration

Course Title

Commercial Refrigeration

Academic Level

Undergraduate

Description

Theory and practical application in the maintenance of commercial refrigeration; medium, and low temperature applications and ice machines.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HART1301 - Basic Electricity for HVAC (3)
    - HART1307 - Refrigeration Principles (3)

HART2343 - Industrial Air Conditioning

Course Title

Industrial Air Conditioning

Academic Level

Undergraduate

Description

A study of components, accessories, applications, and installation of air conditioning systems above 25 tons capacity.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - HART1303 - Air Conditioning Control Principles (3)
  - HART1341 - Residential Air Conditioning (3)

HART2345 - Residential Air Conditioning Systems Design
Course Title

Residential Air Conditioning Systems Design

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HART2336 - Air Conditioning Troubleshooting (3)
    - HART2331 - Advanced Electricity for HVAC (3)
    - HART2341 - Commercial Air Conditioning (3)

HART2349 - Heat Pumps

Course Title

Heat Pumps

Academic Level

Undergraduate

Description

A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HART1303 - Air Conditioning Control Principles (3)
    - HART1341 - Residential Air Conditioning (3)

HART2350 - HVAC Zone Controls

Course Title

HVAC Zone Controls

Academic Level

Undergraduate

Description

Theory and application of HVAC residential Zone control devices, electromechanical controls, and/or pneumatic controls.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HART2336 - Air Conditioning Troubleshooting (3)

HART2357 - Specialized Commercial Refrigeration

Course Title

Specialized Commercial Refrigeration

Academic Level

Undergraduate

Description

An advanced course covering the components, accessories, and service of specialized refrigeration units, such as ice machines, soft-serve machines, cryogenics, and cascade systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - HART2336 - Air Conditioning Troubleshooting (3)

HART2358 - Testing, Adjusting, and Balancing HVAC Systems

Course Title

Testing, Adjusting, and Balancing HVAC Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - HART2331 - Advanced Electricity for HVAC (3)

HART2380 - Cooperative Education HVAC

<u>**Course Title**</u>

Cooperative Education HVAC

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

1

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

15

<u>**Total Contact Hours**</u>

256

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

Heating, Air Cond, Ventilation

RBPT1370 - Building Envelope Inspection
Course Title

Building Envelope Inspection

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

RBPT2325 - Energy Rating Systems for Homes
Course Title

Energy Rating Systems for Homes

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

RBPT2335 - Residential Environmental Quality
Course Title

Residential Environmental Quality

Academic Level

Undergraduate

Description

Methods for improving the indoor and outdoor environmental quality associated with homes. Emphasizes identifying materials, building practices, and human behavior both inside and outside the home that impact environmental quality. Includes best-practice strategies.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

RBPT2350 - Residential Retrofit Strategies
Course Title

Residential Retrofit Strategies

Academic Level

Undergraduate

Description

Evaluation of existing homes and retrofit strategies to improve energy efficiency and environmental quality. Includes retrofitting a home for onsite power generation. Covers using a whole-house approach to evaluate the effects of comfort, safety, indoor environmental quality, financial incentives, cost effectiveness, environmental impact, energy efficiency, and the movement of heat, moisture, and air through the building enclosure.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

RBPT2359 - Residential Building Performance Consulting

Course Title

Residential Building Performance Consulting

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Heavy Equipment Maintenance & Repair

HEMR1091 - Crane Operator Rigging Cert

Course Title

Crane Operator Rigging Cert

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

HEMR1304 - Natural Gas Compression

Course Title

Natural Gas Compression

Academic Level

Undergraduate

Description

An introductory course in the principles of the operation of gas compressors and natural gas engines.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HEMR1401 - Tracks and Undercarriages

Course Title

Tracks and Undercarriages

Academic Level

Undergraduate

Description

Concepts in operation and maintenance of final drive track systems and undercarriages used on track and wheel type equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

History for Transfer

HIST1301 - United States History I
Course Title

United States History I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

HIST1302 - United States History II

Course Title

United States History II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

HIST2312 - Western Civilization II
<u>**Course Title**</u>

Western Civilization II

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

48

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

HIST2321 - World Civilizations I

Course Title

World Civilizations I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Horticulture

HORT1401 - Horticulture (lecture + Lab)
Course Title

Horticulture (lecture + Lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

4

Semester Credit Hours

4

Horticulture Serv Operations

HALT1038 - Irrigation Water Management
Course Title

Irrigation Water Management

Academic Level

Continuing Education

Description

Application of the science of soil-water plant relations and climatic conditions to develop effective scheduling and management of irrigation water systems for residential, commercial, industrial, park, and golf courses. Water conservation issues, water policies and codes and other related matters will be discussed.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

HALT2007 - Horticultural Food Crops
Course Title

Horticultural Food Crops

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

Hospitality Admin/Management

HAMG2305 - Hospitality Management and Leadership
Course Title

Hospitality Management and Leadership

Academic Level

Undergraduate

Description

An overview of management and leadership in the hospitality industry with an emphasis on management philosophy, policy formulation, communications, motivation and team building.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - RSTO1313 - Hospitality Supervision (3)

Human Resources Management

HRPO1091 - Sp Topic in Human Resources Management
Course Title

Sp Topic in Human Resources Management

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

HRPO2301 - Human Resources Management
Course Title

Human Resources Management

Academic Level

Undergraduate

Description

Behavioral and legal approaches to the management of human resources in organizations.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Humanities

HUMA1301 - Introduction to Humanities I
Course Title

Introduction to Humanities I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

HUMA2319 - American Minority Studies
Course Title

American Minority Studies

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

HUMA2323 - World Cultures

Course Title

World Cultures

Academic Level

Undergraduate

Description

This course is a general study of diverse world cultures. Topics include cultural practices, social structures, religions, arts, and languages.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Hydraulics

HYDR1045 - Hydraulics and Pneumatics
Course Title

Hydraulics and Pneumatics

Academic Level

Continuing Education

Description

Discussion of the fundamentals of hydraulics and pneumatics, components of each system, and the operations, maintenance, and analysis of each system.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

60

Semester Credit Hours

0

HYDR1301 - Rigging and Conveying Systems
Course Title

Rigging and Conveying Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HYDR1305 - Basic Hydraulics
Course Title

Basic Hydraulics

Academic Level

Undergraduate

Description

Fundamentals of hydraulics including types of hydraulic pumps, cylinders, valves, motors, and related systems. Introduction to hydraulic schematic symbols as related to components.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

HYDR1345 - Hydraulics and Pneumatics
Course Title

Hydraulics and Pneumatics

Academic Level

Undergraduate

Description

Discussion of the fundamentals of hydraulics and pneumatics, components of each system, and the operations, maintenance, and analysis of each system.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Implement & Support Microsoft

ITMT2003 - Administering a Microsoft Sql Server Dat
Course Title

Administering a Microsoft Sql Server Dat

Academic Level

Continuing Education

Description

In-depth coverage of the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server databases.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

Industrial

INDS1010 - Leed Green Associae
Course Title

Leed Green Associae

Academic Level

Continuing Education

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Semester Credit Hours

0

INDS1300 - Interior Design Drafting Appl
Course Title

Interior Design Drafting Appl

Academic Level

Undergraduate

Description

Computer-aided drafting (CAD) as a tool for interior design, illustration, drafting, and design development

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

INDS1301 - Basic Elements of Design
Course Title

Basic Elements of Design

Academic Level

Undergraduate

Description

A study of basic design concepts with projects in shape, line, value, texture, pattern, spatial illusion, and form.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INDS1319 - Technical Drawing for Interior Designers
Course Title

Technical Drawing for Interior Designers

Academic Level

Undergraduate

Description

Introduction to reading and preparing technical instruction drawing for interior design, including plans, elevation, detail, schedules, dimensions, and lettering.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Industrial/Manufacturing Tech

INMT1000 - 5-S Training
Course Title

5-S Training

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

INMT1003 - Industrial Maintenance Technology, Basic
Course Title

Industrial Maintenance Technology, Basic

Academic Level

Continuing Education

Description

An introduction to preventive maintenance of equipment associated with general industrial production. Instruction in diagnosing and repairing hydraulic, pneumatic and mechanical systems related to industrial equipment.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

INMT1005 - Introduction to Industrial Maintenance
Course Title

Introduction to Industrial Maintenance

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

INMT1091 - Special Topics in Manufacturing Technology/Technician
Course Title

Special Topics in Manufacturing Technology/Technician

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

12

Semester Credit Hours

0

INMT1305 - Introduction to Industrial Maintenance
Course Title

Introduction to Industrial Maintenance

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INMT1317 - Industrial Automation

Course Title

Industrial Automation

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1303 - DC Circuits (3)
    - CETT1305 - AC Circuits (3)

INMT1319 - Manufacturing Processes
Course Title

Manufacturing Processes

Academic Level

Undergraduate

Description

Exploration of a variety of methods used in manufacturing. Theory and application of processes including but not limited to metal forming, welding, machining, heat treating, plating, assembly procedures, and process control considerations, casting and injection molding.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

INMT1355 - Industrial Power Plant Systems
<u>**Course Title**</u>

Industrial Power Plant Systems

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Study the principles of operation and maintenance of industrial power plants. Emphasis placed on component replacement, tune-up, and field adjustments of engine systems.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - INMT1305 - Introduction to Industrial Maintenance (3)

INMT1371 - Industrial Manufacturing PLC Installation
Course Title

Industrial Manufacturing PLC Installation

Academic Level

Undergraduate

Description

A study into Programmable Logic Controllers (PLC's). Topics will include the installation of various PLC units, wiring requirements, proper shielding techniques, wiring of input and output components, troubleshooting PLC input's and output's, ladder logic design, programming, program installation, and program utilization for troubleshooting industrial systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ELPT1341 - Motor Control (3)

Corequisites

- Completed or concurrently enrolled in:
  - ELPT1341 - Motor Control (3)

INMT1372 - Introduction to Industrial Electricity

Course Title

Introduction to Industrial Electricity

Academic Level

Undergraduate

Description

An introductory study into industrial electrical circuits. Topics will include electrical power generation, ohm's law for DC and AC circuits, the relationship between ohm's law and industrial circuits, voltage drop calculation across various loads, basic operations of electrical meters used for testing industrial circuits (to include VOM, Megohm meter, and amp meter), and designing basic industrial circuits.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INMT1373 - Print Reading for Industrial Equipment Technician

Course Title

Print Reading for Industrial Equipment Technician

Academic Level

Undergraduate

Description

An introduction into prints and schematics used in industry to assemble, install, troubleshoot, and repair industrial equipment. Topics will include blue print reading for machining parts, facility prints for equipment installation, introduction to hydraulic symbols and schematic design, introduction to pneumatic symbols and schematic design, and introduction to electrical symbols and schematic design.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INMT1374 - Industrial and Manufacturing Wirning Applications

Course Title

Industrial and Manufacturing Wirning Applications

Academic Level

Undergraduate

Description

A study into the Industrial and Manufacturing. wiring applications. Topics to include the use of Ohms Law and the NEC Codes to calculate circuit protection requirements. Determination of wire sizes required for installation of industrial motors and various other industrial and commercial building equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- INMT 1374 Prerequisite(s):ELPT 1311 or INMT 1372

INMT1375 - Industrial and Manufacturing Wiring Applications
Course Title

Industrial and Manufacturing Wiring Applications

Academic Level

Undergraduate

Description

A study into the Industrial and Manufacturing. wiring applications. Topics to include the use of Ohms Law and the NEC Codes to calculate circuit protection requirements. Determination of wire sizes required for installation of industrial motors and various other industrial and commercial building equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- INMT 1375 Prerequisite(s):ELPT 1311 or INMT 1372

INMT2003 - Pumps, Compressors & Mechanical Drives
Course Title

Pumps, Compressors & Mechanical Drives

Academic Level

Continuing Education

Description

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.

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

0

INMT2045 - Industrial Troubleshooting
Course Title

Industrial Troubleshooting

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

INMT2301 - Machinery Installation

Course Title

Machinery Installation

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INMT1305 - Introduction to Industrial Maintenance (3)

INMT2303 - Pumps, Compressors & Mechanical Drives

Course Title

Pumps, Compressors & Mechanical Drives

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INMT1305 - Introduction to Industrial Maintenance (3)

INMT2345 - Industrial Troubleshooting

Course Title

Industrial Troubleshooting

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ELPT1341 - Motor Control (3)

INMT2371 - Intermediate PLC Applications

Course Title

Intermediate PLC Applications

Academic Level

Undergraduate

Description

A study into intermediate level PLC applications to include field device programming, Analog I/O's, and basic HMI interface understanding along with mechanical, pneumatic, and hydraulic system control.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 3 credits from the following:
    - ELPT2319 - Programmable Logic Controllers I (3)
    - INMT1371 - Industrial Manufacturing PLC Installation (3)

Info Tech Digital Forensics

ITDF1300 - Introduction to Digital Forensics
Course Title

Introduction to Digital Forensics

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITDF1305 - Digital Data Storage Forensics
Course Title

Digital Data Storage Forensics

Academic Level

Undergraduate

Description

Exploration, examination, and assessment of the characteristics and details of digital storage media used in computers systems and small-scale digital devices. Includes experimenting with various tools to reinforce identification of evidentiary data.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITDF1390 - Special Topics in Computer & Information Systems Security/Information Assurance
Course Title

Special Topics in Computer & Information Systems Security/Information Assurance

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITDF2320 - Digital Forensics Collection
Course Title

Digital Forensics Collection

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITDF2325 - Digital Forensics Tools
Course Title

Digital Forensics Tools

Academic Level

Undergraduate

Description

Skills-based course in the applications of forensic analysis software. Tools used in this course may include EnCase, ILook, Forensic Tool Kit, write blockers, StegAlyzerSS, "X-Ways", ProDiscover Basic, and others.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITDF2330 - Digital Forensics Analysis
Course Title

Digital Forensics Analysis

Academic Level

Undergraduate

Description

Digital forensic analysis, report preparation, and evidence presentation. Emphasizes balancing legal and technical aspects of cases where digital forensics is employed.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITDF2335 - Comprehensive Digital Forensics Project

Course Title

Comprehensive Digital Forensics Project

Academic Level

Undergraduate

Description

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. This course is used as a capstone course for a certificate or degree.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ITDF2420 - Digital Forensics Collection
Course Title

Digital Forensics Collection

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

ITDF2425 - Digital Forensics Tools
Course Title

Digital Forensics Tools

Academic Level

Undergraduate

Description

Skills-based course in the applications of forensic analysis software and hardware tools.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - ITDF2420 - Digital Forensics Collection (4)

ITDF2430 - Digital Forensics Analysis

Course Title

Digital Forensics Analysis

Academic Level

Undergraduate

Description

Digital forensic analysis, report preparation, and evidence presentation. Emphasizes balancing legal and technical aspects of cases where digital forensics is employed.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - ITDF2425 - Digital Forensics Tools (4)

ITDF2435 - Comprehensive Digital Forensics Project
Course Title

Comprehensive Digital Forensics Project

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - ITDF2430 - Digital Forensics Analysis (4)

Information Technology Security

ITSY1091 - Sp.Topics in Information Tech
Course Title

Sp.Topics in Information Tech

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

ITSY1342 - Information Technology Security
Course Title

Information Technology Security

Academic Level

Undergraduate

Description

Instruction in security for network hardware, software, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - ITNW1345 - Implementing Network Directory Services (3)
    - ITNW1354 - Implementing and Supporting Servers (3)

ITSY1374 - Secure Linux Administration

Course Title

Secure Linux Administration

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ITNW1354 - Implementing and Supporting Servers (3)

ITSY1375 - Security Scripting

Course Title

Security Scripting

Academic Level

Undergraduate

Description

Utilize scripting languages to create scripts that could be used for security assessments, data analysis(data manipulation; textual manipulation), and automating administrative security tasks.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSY1374 - Secure Linux Administration (3)

ITSY2301 - Firewalls and Network Security
Course Title

Firewalls and Network Security

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITNW2312 - Routers (3)

ITSY2330 - Intrusion Detection

Course Title

Intrusion Detection

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITNW2321 - Networking with TCP/IP (3)

ITSY2343 - Computer System Forensics

Course Title

Computer System Forensics

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ITDF1300 - Introduction to Digital Forensics (3)

ITSY2345 - Network Defense and Countermeasures
Course Title

Network Defense and Countermeasures

Academic Level

Undergraduate

Description

This is a practical application and comprehensive course that includes the planning, design, and construction of defenses fora complex network that will sustain an attack, document events, and mitigate the effects of the attack.

Lecture Hours

2

Lab Hours

4

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITNW2321 - Networking with TCP/IP (3)

ITSY2359 - Security Assessment and Auditing
<u>**Course Title**</u>

Security Assessment and Auditing

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - ITSY1342 - Information Technology Security (3)
    - ITSY2301 - Firewalls and Network Security (3)
    - ITSY1374 - Secure Linux Administration (3)

Institutional Food Workers/Adm

IFWA1050 - Processors & Manuf. CORE HACC
Course Title

Processors & Manuf. CORE HACC

Academic Level

Continuing Education

Description

Common food safety and sanitation practices that should be utilized in food establishments. Topics include keys to providing safe food, food safety hazards, standards for the food safety handler, purchasing and receiving safe food, storing food safely, keeping food safe during preparation and service, proper cleaning and sanitizing, and developing an Integrated Pest Management (IPM) program.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

1

Total Contact Hours

18

Semester Credit Hours

0

IFWA1091 - Special Topics in Institutional Food Wor
Course Title

Special Topics in Institutional Food Wor

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

IFWA1205 - Food Service Equipment and Planning
Course Title

Food Service Equipment and Planning

Academic Level

Undergraduate

Description

A study of various types of food service equipment and the planning of equipment layout for product flow and efficient operation.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

IFWA1217 - Food Production and Planning
Course Title

Food Production and Planning

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

IFWA1218 - Nutrition for the Food Service Professional
Course Title

Nutrition for the Food Service Professional

Academic Level

Undergraduate

Description

An introduction to nutrition including nutrients, digestion and metabolism, menu planning, recipe modification, dietary guidelines and restrictions, diet and disease, and healthy cooking techniques.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

IFWA1318 - Nutrition for the Food Service Prof Professional
Course Title

Nutrition for the Food Service Prof Professional

Academic Level

Undergraduate

Description

An introduction to nutrition including nutrients, digestion and metabolism, menu planning, recipe modification, dietary guidelines and restrictions, diet and disease, and healthy cooking techniques.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

IFWA1401 - Food Preparation I
Course Title

Food Preparation I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

8

Ext. Con. Hrs

0

Total Contact Hours

160

Credits

4

Semester Credit Hours

4

IFWA1427 - Food Preparation II

Course Title

Food Preparation II

Academic Level

Undergraduate

Description

Continuation of the fundamental principles of food preparation. Emphasis on preparation of food items such as meats, poultry and fish.

Lecture Hours

2

Lab Hours

8

Ext. Con. Hrs

0

Total Contact Hours

160

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete all of the following
  - Complete at least 1 of the following:
    - CHEF1205 - Sanitation and Safety (2)
    - CHEF1305 - Sanitation and Safety (3)
  - Complete the following:
    - IFWA1401 - Food Preparation I (4)

IFWA2341 - Specialized Food Preparation

Course Title

Specialized Food Preparation

Academic Level

Undergraduate

Description

A study of ethnic/regional cooking with actual preparation of local favorite dishes and common international favorites.

Lecture Hours

1

Lab Hours

7

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - IFWA1427 - Food Preparation II (4)
  - PSTR2431 - Advanced Pastry Shop (4)

Instructional Media Technology

IMED1002 - Web Page Creation I
Course Title

Web Page Creation I

Academic Level

Continuing Education

Description

Web page creation with graphic elements. Includes use of Web authoring software and study of websites and browsers.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

7

Semester Credit Hours

0

IMED1040 - Web Site Creation II
Course Title

Web Site Creation II

Academic Level

Continuing Education

Description

Publishing, design, and layout techniques for Websites. Utilizes techniques in animation, tables, and forms. Also includes application of tools for creating and editing a Website.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

IMED1316 - Web Design I
Course Title

Web Design I

Academic Level

Undergraduate

Description

Instruction in web design and related graphic design including mark-up languages, and browser issues.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Completed or concurrently enrolled in:
  - ITSE1311 - Beginning Web Programming (3)
  - IMED1371 - Ui/Ux Design (3)

IMED1341 - Interface Design

Course Title

Interface Design

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

IMED1345 - Interactive Digital Media I

Course Title

Interactive Digital Media I

Academic Level

Undergraduate

Description

Exploration of the use of graphics and sound to create interactive digital media applications and/or animations using industry standard authoring software.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - IMED1341 - Interface Design (3)

IMED1371 - Ui/Ux Design

Course Title

Ui/Ux Design

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

IMED2309 - Internet Commerce

Course Title

Internet Commerce

Academic Level

Undergraduate

Description

An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSE1306 - PHP Programming (3)

IMED2311 - Portfolio Development
Course Title

Portfolio Development

Academic Level

Undergraduate

Description

Preparation and enhancement of portfolio to meet professional standards, development of presentation skills, and improvement of job-seeking techniques.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSE2313 - Web Authoring (3)
    - IMED2309 - Internet Commerce (3)
    - IMED2315 - Web Design II (3)

IMED2313 - Project Analysis and Design
Course Title

Project Analysis and Design

Academic Level

Undergraduate

Description

Application of the planning and production processes for digital media projects. Emphasis on copyright and other legal issues, content design and production management.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

IMED2315 - Web Design II
Course Title

Web Design II

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - IMED1316 - Web Design I (3)

IMED2345 - Interactive Digital Media II
Course Title

Interactive Digital Media II

Academic Level

Undergraduate

Description

Instruction in the use of scripting languages to create interactive digital media applications.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSE2302 - Intermediate Web Programming (3)

IMED2349 - Internet Server Management

Course Title

Internet Server Management

Academic Level

Undergraduate

Description

Web server software installation, configuration, and maintenance. Includes scripting and website optimization.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

IMED2351 - Digital Media Programming

Course Title

Digital Media Programming

Academic Level

Undergraduate

Description

Advanced topics in digital media programming including custom scripts for data tracking. Emphasis on developing digital media programs customized to the client's needs.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:

IMED2359 - Interactive Web Elements

Course Title

Interactive Web Elements

Academic Level

Undergraduate

Description

Production of projects using current web development tools that may incorporate dynamic data, web graphics, animation, video and audio streaming.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - IMED1341 - Interface Design (3)

IMED2388 - Internship - Digital Communication and Media/Multimedia
Course Title

Internship - Digital Communication and Media/Multimedia

Academic Level

Undergraduate

Description

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.

Students are required to complete 144 hrs total in the semester. It is recomended that a student completes 10 hours a week. The position and company must be pre-approved before a student signs up for the internship class. Employer reviews and hour logs are required.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

9

Total Contact Hours

144

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ITSE2313 - Web Authoring (3)
    - IMED2309 - Internet Commerce (3)
    - IMED2315 - Web Design II (3)

Instrumentation, Technician

INTC1005 - Introduction to Instrumentation Intro to Instrumentation
Course Title

Introduction to Instrumentation Intro to Instrumentation

Academic Level

Continuing Education

Description

A survey of the instrumentation field and the professional requirements of the instrumentation technician.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

50

Semester Credit Hours

0

INTC1305 - Introduction to Instrumentation

Course Title

Introduction to Instrumentation

Academic Level

Undergraduate

Description

A survey of the instrumentation field and the professional requirements of the instrumentation technician.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Completed or concurrently enrolled in:
  - CETT1303 - DC Circuits (3)

Corequisites

- Completed or concurrently enrolled in:

INTC1312 - Instrumentation and Safety
Course Title

Instrumentation and Safety

Academic Level

Undergraduate

Description

An overview of industries employing instrument technicians. Includes instrument safety techniques and practices as applied to the instrumentation field.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INTC1341 - Principles of Automatic Control
Course Title

Principles of Automatic Control

Academic Level

Undergraduate

Description

Basic measurements, automatic control systems and design, closed loop systems, controllers, feedback, control modes, and control configurations.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INTC1343 - Application of Industrial Automatic Controls

Course Title

Application of Industrial Automatic Controls

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INTC1348 - Analytical Instrumentation
Course Title

Analytical Instrumentation

Academic Level

Undergraduate

Description

Analytical instruments emphasizing utilization in process applications. Includes, but not limited to, chromatography, pH, conductivity, and spectrophotometric instruments.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INTC1341 - Principles of Automatic Control (3)

INTC1350 - Digital Measurement and Controls
Course Title

Digital Measurement and Controls

Academic Level

Undergraduate

Description

Basic measurement control instrumentation. Includes movement of digital data through common systems employing parallel and serial transfers.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - RBTC1301 - Programmable Logic Controllers (3)

INTC1355 - Unit Operations

Course Title

Unit Operations

Academic Level

Undergraduate

Description

Automatic control requirements of industrial processes. Includes control systems, control loop tuning, and analysis.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INTC1341 - Principles of Automatic Control (3)

INTC1356 - Instrumentation Calibration

Course Title

Instrumentation Calibration

Academic Level

Undergraduate

Description

Techniques for configuring and calibrating transmitters, controllers, recorders, valves, and valve positioners.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INTC1355 - Unit Operations (3)

INTC1357 - AC/DC Motor Control
Course Title

AC/DC Motor Control

Academic Level

Undergraduate

Description

A study of electric motors and motor control devices common to a modern industrial environment. A presentation of motor characteristics with emphasis on starting, speed control, and stopping systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INTC1358 - Flow and Measurement Calibration
Course Title

Flow and Measurement Calibration

Academic Level

Undergraduate

Description

Practical methods of flow measurements and flow integration. Emphasizes primary flow element selection and calculations in accordance with American Gas Association (AGA) and American Petroleum Institute (API) standards.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INTC1370 - Power Supply

Course Title

Power Supply

Academic Level

Undergraduate

Description

A study of automatic process control including measuring devices, analog and digital instrumentation, signal transmitters, recorders, alarms, controllers, control valves, and process and instrument drawings. Includes connection and troubleshooting of loops.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INTC1391 - Spec Topics in Instrumentation Technolog
Course Title

Spec Topics in Instrumentation Technolog

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

INTC2030 - Instrumentation Troubleshooting
Course Title

Instrumentation Troubleshooting

Academic Level

Continuing Education

Description

An in-depth coverage of the techniques of troubleshooting in a complex instrumented environment. Laboratory exercises require troubleshooting upsets in chemical processes.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

INTC2310 - Principles of Industrial Measurements II
Course Title

Principles of Industrial Measurements II

Academic Level

Undergraduate

Description

Additional principles of measurement. Includes devices used to measure process variables and basic control functions.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INTC1355 - Unit Operations (3)

INTC2330 - Instrumentation Systems Troubleshooting

Course Title

Instrumentation Systems Troubleshooting

Academic Level

Undergraduate

Description

Techniques for troubleshooting instrumentation systems in a process environment. Includes troubleshooting upsets in processes.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INTC1343 - Application of Industrial Automatic Controls (3)

INTC2333 - Instrumentation Systems Installation

Course Title

Instrumentation Systems Installation

Academic Level

Undergraduate

Description

Synthesis, application, and integration of instrument installation components. Includes a comprehensive final project.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INTC1355 - Unit Operations (3)

INTC2336 - Distributed Control and Programmable Logic

Course Title

Distributed Control and Programmable Logic

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - RBTC1301 - Programmable Logic Controllers (3)

Corequisites

- Completed or concurrently enrolled in:
    - RBTC1301 - Programmable Logic Controllers (3)

INTC2339 - Instrument and Control Review

Course Title

Instrument and Control Review

Academic Level

Undergraduate

Description

An overview of instrument and control technology in preparation for industry employment and national testing.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INTC1343 - Application of Industrial Automatic Controls (3)

INTC2350 - Fieldbus Process Control Systems
Course Title

Fieldbus Process Control Systems

Academic Level

Undergraduate

Description

A comprehensive view of fieldbus systems using theory, applications, and hands-on experiences.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INTC2333 - Instrumentation Systems Installation (3)

Integrated Reading/Writing

INRW0100 - Integrated Reading/Writing I
Course Title

Integrated Reading/Writing I

Academic Level

Undergraduate

Description

This course covers introductory integrated reading and writing topics.

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

3

INRW0200 - Integrated Reading/Writing II
Course Title

Integrated Reading/Writing II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

3

Intro to Computing

COSC1336 - Programming Fundamentals I

Course Title

Programming Fundamentals I

Academic Level

Undergraduate

Description

Introduces the fundamental concepts of structured programming. Topics include software developement methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy.

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

COSC1337 - Programming Fundamentals II

Course Title

Programming Fundamentals II

Academic Level

Undergraduate

Description

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.)

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - COSC1336 - Programming Fundamentals I (3)

COSC2325 - Computer Organization

Course Title

Computer Organization

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - COSC1336 - Programming Fundamentals I (3)

COSC2336 - Programming Fundamentals III
Course Title

Programming Fundamentals III

Academic Level

Undergraduate

Description

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.)

Lecture Hours

3

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - COSC1337 - Programming Fundamentals II (3)

Introduction to Construction

CNBT1011 - Const Methods & Materials
Course Title

Const Methods & Materials

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CNBT1016 - Construction Technology I
Course Title

Construction Technology I

Academic Level

Continuing Education

Description

Introduction to site preparation foundations, form work, safety, tools, and equipment.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

72

Credits

0

Semester Credit Hours

0

CNBT1300 - Residential and Light Commercial Construction Drawings
Course Title

Residential and Light Commercial Construction Drawings

Academic Level

Undergraduate

Description

Introduction to construction drawings with a focus on residential and light commercial construction.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT1302 - Mechanical, Electrical & Plumbing Systems in Construction I
Course Title

Mechanical, Electrical & Plumbing Systems in Construction I

Academic Level

Undergraduate

Description

A presentation of the basic mechanical, electrical, and plumbing components in construction and their relationship to residential and light commercial buildings.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT1311 - Construction Methods and Materials I
Course Title

Construction Methods and Materials I

Academic Level

Undergraduate

Description

Introduction to construction materials and methods and their applications.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT1313 - Concrete I
Course Title

Concrete I

Academic Level

Undergraduate

Description

Various techniques for concrete utilization in residential and light commercial construction.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT1315 - Field Engineering I
Course Title

Field Engineering I

Academic Level

Undergraduate

Description

Surveying equipment, sketches, proper field note taking, methods of staking, layout of building site, and horizontal and vertical controls.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT1316 - Construction Technology I
Course Title

Construction Technology I

Academic Level

Undergraduate

Description

Introduction to site preparation, foundations, form work, safety, tools, and equipment.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT1342 - Building Codes and Inspections
Course Title

Building Codes and Inspections

Academic Level

Undergraduate

Description

Building codes and standards applicable to building construction and inspection processes.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT1346 - Construction Estimating I
Course Title

Construction Estimating I

Academic Level

Undergraduate

Description

Fundamentals of estimating materials, equipment, and labor costs in construction.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT1350 - Construction Technology II
Course Title

Construction Technology II

Academic Level

Undergraduate

Description

Framing in residential and light commercial construction. Includes safety, tools, and equipment used in floor, wall, ceiling, and roof framing methods and systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT1359 - Project Scheduling
Course Title

Project Scheduling

Academic Level

Undergraduate

Description

A study of conventional scheduling using critical-path-method, precedence networks, bar charts, monthly reports, and fast-track scheduling.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT1411 - Construction Materials and Methods I
Course Title

Construction Materials and Methods I

Academic Level

Undergraduate

Description

Introduction to construction materials and methods and their applications.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

CNBT1449 - Concrete II
Course Title

Concrete II

Academic Level

Undergraduate

Description

Various techniques for concrete utilization in commercial and heavy construction.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - CNBT1313 - Concrete I (3)

CNBT1450 - Construction Technology II

Course Title

Construction Technology II

Academic Level

Undergraduate

Description

Framing in residential and light commercial construction. Includes safety, tools, and equipment used in floor, wall, ceiling, and roof framing methods and systems.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - CNBT1316 - Construction Technology I (3)

CNBT1453 - Construction Technology III
Course Title

Construction Technology III

Academic Level

Undergraduate

Description

Exterior Trim and finish for residential and light commercial construction.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - CNBT1316 - Construction Technology I (3)

CNBT1680 - Cooperative Education - Construction Engineering Technology/Technician
Course Title

Cooperative Education - Construction Engineering Technology/Technician

Academic Level

Undergraduate

Description

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.

Additional Course Information

This course is the technicial elective for the BCT.CRF.CER1 with a minimun requirement of 40 hours per week for 15 weeks

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

39

Total Contact Hours

640

Credits

6

Semester Credit Hours

6

CNBT2014 - Leed Green Associate Exam Prep
Course Title

Leed Green Associate Exam Prep

Academic Level

Continuing Education

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Semester Credit Hours

0

CNBT2305 - Building and Contracting

Course Title

Building and Contracting

Academic Level

Undergraduate

Description

Basic process of organizing and operating a building or contracting business.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CNBT2342 - Construction Management I (3)

CNBT2310 - Commercial/Industrial Blueprint Reading

Course Title

Commercial/Industrial Blueprint Reading

Academic Level

Undergraduate

Description

Blueprint reading for commercial/industrial construction.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CNBT1300 - Residential and Light Commercial Construction Drawings (3)

CNBT2317 - Green Building
Course Title

Green Building

Academic Level

Undergraduate

Description

Methods and materials used for buildings that conserve energy, water, and human resources.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT2337 - Construction Estimating II
Course Title

Construction Estimating II

Academic Level

Undergraduate

Description

Advanced estimating concepts using computer software for construction and crafts.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT2339 - Construction Technology IV
Course Title

Construction Technology IV

Academic Level

Undergraduate

Description

Interior finish for residential and light commercial construction.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT2342 - Construction Management I
Course Title

Construction Management I

Academic Level

Undergraduate

Description

Overview of the construction industry and management skills on the job site. Topics include written and oral communications, leadership and motivation, problem solving, and decision making.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT2344 - Construction Management II
Course Title

Construction Management II

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

CNBT2404 - Construction Methods and Materials II

Course Title

Construction Methods and Materials II

Academic Level

Undergraduate

Description

Continuation of the study of the properties of building materials, methods and equipment for their integrated use in completing construction projects.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - CNBT1411 - Construction Materials and Methods I (4)

CNBT2439 - Construction Technology IV
Course Title

Construction Technology IV

Academic Level

Undergraduate

Description

Interior finish for residential and light commercial construction.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - CNBT1316 - Construction Technology I (3)

Jailer

CJLE1010 - Texas Alcoholic Beverage Code
Course Title

Texas Alcoholic Beverage Code

Academic Level

Continuing Education

Description

Overview of the Texas Alcoholic Beverage Code and the Texas Alcoholic Beverage Commission.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CJLE1011 - Basic Firearms
Course Title

Basic Firearms

Academic Level

Continuing Education

Description

Firearm safety, cleaning and care techniques, proper shooting principles, and firearm proficiency.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Semester Credit Hours

0

CJLE1023 - Firearms
Course Title

Firearms

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CJLE1026 - Basic Crime Prevention
Course Title

Basic Crime Prevention

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CJLE1041 - Sexual Assault Investigation
Course Title

Sexual Assault Investigation

Academic Level

Continuing Education

Description

General principles of conducting a sexual assault investigation including proper evidence handling.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

8

Semester Credit Hours

0

CJLE1042 - Legislative Update
Course Title

Legislative Update

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

4

Semester Credit Hours

0

CJLE1048 - Current Issues in Arrest, Sear
Course Title

Current Issues in Arrest, Sear

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CJLE1052 - Border Violence, Mx. Drug Cartels, Gangs
Course Title

Border Violence, Mx. Drug Cartels, Gangs

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

7

Semester Credit Hours

0

CJLE1059 - Intermediate Spanish for Law E
Course Title

Intermediate Spanish for Law E

Academic Level

Continuing Education

Description

Practical Spanish communication skills for law enforcement. Meets the requirements as established by the Texas Commission on Law Enforcement (TCLEOSE) Course 2110.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Semester Credit Hours

0

CJLE2000 - Professional Development: Criminal Justi
Course Title

Professional Development: Criminal Justi

Academic Level

Continuing Education

Description

Intensive training in an identified area(s) to meet continuing education and/or review/update requirements associated with professional licensure or certification. This course is designed to be repeated multiple times to improve student proficiency.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

7

Semester Credit Hours

0

CJLE2002 - Arrest, Search and Seizure
Course Title

Arrest, Search and Seizure

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CJLE2006 - Advance Crime Prevention
Course Title

Advance Crime Prevention

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CJLE2007 - Crime Prevention
Course Title

Crime Prevention

Academic Level

Continuing Education

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

24

Semester Credit Hours

0

CJLE2018 - Intermediate Criminial Investigation
Course Title

Intermediate Criminial Investigation

Academic Level

Continuing Education

Description

New investigative techniques and current information on arrest, search, seizure, and processing and collecting evidence.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

7

Semester Credit Hours

0

CJLE2025 - Crisis Communications
Course Title

Crisis Communications

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

CJLE2042 - Trfc. Law Enfor.&Accid.Invest
Course Title

Trfc. Law Enfor.&Accid.Invest

Academic Level

Continuing Education

Lecture Hours

5

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

80

Semester Credit Hours

0

CJLE2049 - Basic Instructor
Course Title

Basic Instructor

Academic Level

Continuing Education

Description

The adult learning process and the differences between adult and child learning. Includes the role of the instructor, the three domains of learning, and their impact on the learning process. Meets the Texas Commission on Law Enforcement (TCLEOSE) requirements.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

Laser Optics

LOTT1001 - Introduction to Fiber Optics
Course Title

Introduction to Fiber Optics

Academic Level

Continuing Education

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

Law

LAWT1301 - Copyright and Ethical Issues
Course Title

Copyright and Ethical Issues

Academic Level

Undergraduate

Description

Introduction to basic copyright law and related ethical issues as they apply to creation and use of copyrighted material. Emphasis on practical application of copyright law through case studies.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Lineworker-Electrical Tran Systems

LNWK1211 - Climbing Skills
Course Title

Climbing Skills

Academic Level

Undergraduate

Description

Theory and application of pole climbing. Includes safety, climbing techniques, tool inspection, poles inspection, personal protective equipment, and fall protection.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

LNWK1231 - Transformer Connections
Course Title

Transformer Connections

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

LNWK1241 - Distribution Operations
<u>**Course Title**</u>

Distribution Operations

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

A study of the theoretical and practical operation of electric utility distribution systems. Topics include customer service voltages, capacitors, and coordination of protection equipment.

<u>**Lecture Hours**</u>

1

<u>**Lab Hours**</u>

3

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

64

<u>**Credits**</u>

2

<u>**Semester Credit Hours**</u>

2

<u>**Prerequisites**</u>

- Complete the following:
    - LNWK1311 - Climbing Skills (3)

LNWK1301 - Orientation and Line Skill Fundamentals
Course Title

Orientation and Line Skill Fundamentals

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

LNWK1311 - Climbing Skills
Course Title

Climbing Skills

Academic Level

Undergraduate

Description

Theory and application of pole climbing. Includes safety, climbing techniques, tool inspection, poles inspection, personal protective equipment, and fall protection.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

LNWK1331 - Transformer Connections
Course Title

Transformer Connections

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - LNWK1311 - Climbing Skills (3)

LNWK1370 - Rigging for Electrical Lineworker

Course Title

Rigging for Electrical Lineworker

Academic Level

Undergraduate

Description

Introduction to rigging and hoisting in the line industry. Includes selecting proper rigging equipment; rope knots and splices; slings and hitches; signaling.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

LNWK1391 - Special Topics in Lineworker
<u>**Course Title**</u>

Special Topics in Lineworker

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

3

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

80

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - LNWK1311 - Climbing Skills (3)

LNWK1470 - Electrical Safety, Tools and Calculations

Course Title

Electrical Safety, Tools and Calculations

Academic Level

Undergraduate

Description

Introduction to electrical safety and use of tools; includes selection, use, and maintenance of tools; calculations used in line worker's Industry.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - LNWK1311 - Climbing Skills (3)

LNWK2024 - Troubleshooting Distribution Systems

Course Title

Troubleshooting Distribution Systems

Academic Level

Continuing Education

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

LNWK2321 - Live Line Safety

<u>**Course Title**</u>

Live Line Safety

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
  - LNWK1311 - Climbing Skills (3)

LNWK2322 - Distribution Line Construction

Course Title

Distribution Line Construction

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - LNWK1311 - Climbing Skills (3)

LNWK2324 - Troubleshooting Distribution Systems
Course Title

Troubleshooting Distribution Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

LNWK2370 - Transmission and Underground Utilities

Course Title

Transmission and Underground Utilities

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - LNWK1311 - Climbing Skills (3)

LNWK2371 - Maintenance, Testing, and Reconducting For Lineworker

Course Title

Maintenance, Testing, and Reconducting For Lineworker

Academic Level

Undergraduate

Description

Proper and safe use of testing equipment for linemen industry and maintenance of test equipment and tools.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

LNWK2372 - Work Procedures and Safety in Electrical Lineworker

Course Title

Work Procedures and Safety in Electrical Lineworker

Academic Level

Undergraduate

Description

Identification 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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - LNWK1311 - Climbing Skills (3)

Logistics & Materials Management

LMGT1325 - Warehouse and Distribution Center Management
Course Title

Warehouse and Distribution Center Management

Academic Level

Undergraduate

Description

Emphasis on physical distribution and total supply chain management. Includes warehouse operations management, hardware and software operations, bar codes, organizational effectiveness, just-in-time, and continuous replenishment.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

LMGT2002 - Distribution and Logistics Mgn
Course Title

Distribution and Logistics Mgn

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

LMGT2034 - Logistics
Course Title

Logistics

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

Machining

MCHN1010 - Grinders, Tool and Cutter
Course Title

Grinders, Tool and Cutter

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

MCHN1026 - Intro to Computer Aided Manufacturing
Course Title

Intro to Computer Aided Manufacturing

Academic Level

Continuing Education

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

0

MCHN1032 - Bench Work and Layout
Course Title

Bench Work and Layout

Academic Level

Continuing Education

Description

An introduction to bench work and layout. Application of the use and theory of tools such as hand tools, height gages, pedestal grinders, and layout tools.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

0

MCHN1201 - Beginning Machine Shop
Course Title

Beginning Machine Shop

Academic Level

Undergraduate

Description

Fundamental machine shop safety, math, and measurement.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

MCHN1300 - Beginning Machine Shop
Course Title

Beginning Machine Shop

Academic Level

Undergraduate

Description

Fundamental machine shop safety, math, and measurement.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

MCHN1302 - Print Reading for Machining Trades
Course Title

Print Reading for Machining Trades

Academic Level

Undergraduate

Description

A study of blueprints for machining trades with emphasis on machine drawings.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

MCHN1320 - Precision Tools and Measurement
Course Title

Precision Tools and Measurement

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

MCHN1326 - Introduction to Computer-Aided Manufacturing (CAM)
Course Title

Introduction to Computer-Aided Manufacturing (CAM)

Academic Level

Undergraduate

Description

A study of Computer-Aided Manufacturing (CAM) software which is used to develop applications for manufacturing.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - MCHN1302 - Print Reading for Machining Trades (3)

Corequisites

- Concurrently enrolled in:
  - MCHN2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls (3)

MCHN1338 - Basic Machine Shop I
Course Title

Basic Machine Shop I

Academic Level

Undergraduate

Description

A course that introduces the student to machining fundamentals. The student will use 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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

MCHN1343 - Machine Shop Mathematics
Course Title

Machine Shop Mathematics

Academic Level

Undergraduate

Description

Designed to prepare the student with technical, applied mathematics that will be necessary in future machine shop-related courses.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

MCHN1371 - Engineering Computer Graphics I
Course Title

Engineering Computer Graphics I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

MCHN1416 - Machine Tool Repair

Course Title

Machine Tool Repair

Academic Level

Undergraduate

Description

Basic repair of machine tools, disassembly, parts fabrication, and assembly of machine types, including related math, blueprint reading, and safety.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

MCHN1438 - Basic Machine Shop I
Course Title

Basic Machine Shop I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

MCHN1454 - Intermediate Machining II

Course Title

Intermediate Machining II

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - MCHN1438 - Basic Machine Shop I (4)

MCHN1493 - Special Topics in Tool and Die Maker/Technologist
Course Title

Special Topics in Tool and Die Maker/Technologist

Academic Level

Undergraduate

Description

A study of basic stamping dies: topics including the basic terminology, blanking, piercing, bending and related basic operations to shape metal in stamping and forging operations. To operates various machine tools to make and repair molds, special machinery, tools, dies, jigs, fixtures and die cast dies including the use of CAM/CNC software.

Lecture Hours

2

Lab Hours

6

Total Contact Hours

112

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - PLTC1343 - Mold Design and Maintenence (3)

MCHN2002 - Intermediate Milling Operation
Course Title

Intermediate Milling Operation

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

MCHN2003 - Fund of Comp Num Cont Mach

Course Title

Fund of Comp Num Cont Mach

Academic Level

Continuing Education

Description

An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

MCHN2004 - Intermediate Millwright

Course Title

Intermediate Millwright

Academic Level

Continuing Education

Description

Identification of common bearings and seals. Emphasis on design and installation of seals, bearings, and couplings.

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

96

Semester Credit Hours

0

MCHN2035 - Advanced CNC Machining

Course Title

Advanced CNC Machining

Academic Level

Continuing Education

Description

The study of advanced CNC operation with an emphasis on programming and operations of machining and turning centers. CNC machines will include Fanuc, Mazak and others.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

MCHN2037 - Advanced Milling Operations

Course Title

Advanced Milling Operations

Academic Level

Continuing Education

Lecture Hours

9

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

144

Semester Credit Hours

0

MCHN2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls

Course Title

Fundamentals of Computer Numerical Controlled (CNC) Machine Controls

Academic Level

Undergraduate

Description

Programming and operation of Computer Numerical Controlled (CNC) machine shop equipment.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Corequisites

- Completed or concurrently enrolled in:
    - MCHN1326 - Introduction to Computer-Aided Manufacturing (CAM) (3)

MCHN2305 - Millwright III

Course Title

Millwright III

Academic Level

Undergraduate

Description

An introduction to bearings and seals. Identification of common bearings and seals. Emphasis on design and installation of seals and bearings.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

96

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - INMT2303 - Pumps, Compressors & Mechanical Drives (3)

MCHN2335 - Advanced CNC Machining

<u>**Course Title**</u>

Advanced CNC Machining

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

The study of advanced CNC operation with an emphasis on programming and operations of machining and turning centers.

<u>**Lecture Hours**</u>

1

<u>**Lab Hours**</u>

5

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - MCHN2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls (3)

MCHN2338 - Advanced Computer-Aided Manufacturing (CAM)
Course Title

Advanced Computer-Aided Manufacturing (CAM)

Academic Level

Undergraduate

Description

Advanced techniques in Computer-Aided Manufacturing (CAM).

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - MCHN1326 - Introduction to Computer-Aided Manufacturing (CAM) (3)

MCHN2341 - Advanced Machining I

Course Title

Advanced Machining I

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - MCHN1454 - Intermediate Machining II (4)

MCHN2344 - Computerized Numerical Control Programming

Course Title

Computerized Numerical Control Programming

Academic Level

Undergraduate

Description

An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - MCHN1302 - Print Reading for Machining Trades (3)

MCHN2435 - Advanced CNC Machining

Course Title

Advanced CNC Machining

Academic Level

Undergraduate

Description

Advanced CNC operation with an emphasis on programming and operations of machining and turning centers.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - MCHN2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls (3)

MCHN2441 - Advanced Machining I
Course Title

Advanced Machining I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - MCHN1454 - Intermediate Machining II (4)

MCHN2444 - Computerized Numerical Control Programmi CNC Programming (2-6-4)
Course Title

Computerized Numerical Control Programmi CNC Programming (2-6-4)

Academic Level

Undergraduate

Description

An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

MCHN2445 - Advanced Machining II

Course Title

Advanced Machining II

Academic Level

Undergraduate

Description

Advanced milling, grinding, and lathe operations to tolerance dimensions. Emphasis on job planning and advanced uses of precision measuring instruments.

Lecture Hours

2

Lab Hours

6

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - MCHN2441 - Advanced Machining I (4)

MCHN2447 - Specialized Tools and Fixtures

Course Title

Specialized Tools and Fixtures

Academic Level

Undergraduate

Description

An advanced course in the designing and building of special tools, such as jigs, fixtures, punch press dies, and molds. Machining and assembling of a production tool using conventional machine shop equipment. Application of production tool theory, care, and maintenance.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - MCHN1438 - Basic Machine Shop I (4)

MCHN2471 - Specialized Equipment and Processes
Course Title

Specialized Equipment and Processes

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - MCHN1438 - Basic Machine Shop I (4)

Manufacturing Engineering Tech

MFGT1406 - Mechanical Principles in Automated Manufacturing
Course Title

Mechanical Principles in Automated Manufacturing

Academic Level

Undergraduate

Description

Overview of mechanical principles used in automated manufacturing. Includes common measurement methods, engineering drawings, and mechanical methods used in automated manufacturing.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

MFGT2459 - Industrial Automation II
Course Title

Industrial Automation II

Academic Level

Undergraduate

Description

Advanced topics in automated manufacturing. Includes electrical and electronic principles, electro-pneumatic and electro-hydraulic controls, logic control methods, and basic programming techniques.

Lecture Hours

3

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

112

Credits

4

Semester Credit Hours

4

Marketing

MRKG1000 - Customer Service
Course Title

Customer Service

Academic Level

Continuing Education

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

26

Semester Credit Hours

0

MRKG1001 - Customer Relations
Course Title

Customer Relations

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

MRKG1011 - Principles of Marketing
Course Title

 Principles of Marketing

Academic Level

 Continuing Education

Lecture Hours

 0

Lab Hours

 0

Ext. Con. Hrs

 0

Total Contact Hours

 0

Semester Credit Hours

 0

MRKG1301 - Customer Relationship Management
Course Title

 Customer Relationship Management

Academic Level

 Undergraduate

Description

 General principles of customer relationship management including skills, knowledge, attitudes, and behaviors.

Lecture Hours

 2

Lab Hours

 2

Ext. Con. Hrs

 0

Total Contact Hours

 64

Credits

 3

Semester Credit Hours

 3

MRKG2033 - Principles of Selling
Course Title

Principles of Selling

Academic Level

Continuing Education

Description

Overview of the selling process. Identification of the elements of the communication process between buyers and sellers. Examination of the legal and ethical issues of organizations which affect salespeople.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

MRKG2349 - Advertising and Sales Promotion
<u>**Course Title**</u>

Advertising and Sales Promotion

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Integrated marketing communications. Includes advertising principles and practices. Emphasizes multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

48

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - ARTC1302 - Digital Imaging I (3)

Mathematics

MATH1314 - College Algebra (3 SCH version)
Course Title

College Algebra (3 SCH version)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

MATH1316 - Plane Trigonometry
Course Title

Plane Trigonometry

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

MATH1325 - Calculus for Business & Social Sciences

Course Title

Calculus for Business & Social Sciences

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

MATH1332 - Contemporary Mathematics (Quantitative Reasoning)

Course Title

Contemporary Mathematics (Quantitative Reasoning)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

MATH1342 - Elementary Statistical Methods
Course Title

Elementary Statistical Methods

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

MATH1350 - Math - Teachers I Fundamentals of Math I
Course Title

Math - Teachers I Fundamentals of Math I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

MATH1351 - Fundamentals of Mathematics II
Course Title

Fundamentals of Mathematics II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

MATH2312 - Pre-Calculus Math (3 SCH version)
<u>**Course Title**</u>

Pre-Calculus Math (3 SCH version)

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

In-depth combined study of algebra, trigonometry, and other topics for calculus readiness.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

48

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete at least 3 credits from the following:
    - MATH1314 - College Algebra (3 SCH version) (3)
    - MATH1316 - Plane Trigonometry (3)

MATH2313 - Calculus I

Course Title

Calculus I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

MATH2318 - Linear Algebra

Course Title

Linear Algebra

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

MATH2320 - Differential Equations (3 SCH version)

Course Title

Differential Equations (3 SCH version)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - MATH2414 - Calculus II (4 SCH version) (4)

MATH2342 - Elementary Statistical Methods

Course Title

Elementary Statistical Methods

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

MATH2413 - Calculus I (4 SCH version)
Course Title

Calculus I (4 SCH version)

Academic Level

Undergraduate

Description

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.

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

4

Semester Credit Hours

4

Prerequisites

- MATH 2413 prerequisite MATH 1316 or MATH 2312 or MATH 2412

MATH2414 - Calculus II (4 SCH version)

Course Title

Calculus II (4 SCH version)

Academic Level

Undergraduate

Description

Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals.

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - MATH2413 - Calculus I (4 SCH version) (4)

MATH2415 - Calculus III (4 SCH version)

Course Title

Calculus III (4 SCH version)

Academic Level

Undergraduate

Description

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.

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - MATH2414 - Calculus II (4 SCH version) (4)

MATH3MTH - Gen Ed Mathematics Elective
Course Title

Gen Ed Mathematics Elective

Academic Level

Undergraduate

Description

Gen Ed Mathematics Electives for Math Majors

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Mechatronics

MECH1370 - Introduction to Mechatronics

Course Title

Introduction to Mechatronics

Academic Level

Undergraduate

Description

Overview of mechatronics applications including controls, programming, electrical, and mechanical systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

MECH1371 - Industry Digital Devices

Course Title

Industry Digital Devices

Academic Level

Undergraduate

Description

A course interfacing digital devices using logic circuits, metering equipment and different numbering systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1303 - DC Circuits (3)

MECH1372 - Basic Programmable Logic Controllers

Course Title

Basic Programmable Logic Controllers

Academic Level

Undergraduate

Description

Basic course in programmable control systems with emphasis on basic program techniques to include hardware identification, basic ladder programming and PLC communications.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - CETT1305 - AC Circuits (3)

MECH1373 - Motion Control

Course Title

Motion Control

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1305 - AC Circuits (3)

MECH1471 - Hydraulic and Pneumatic Systems
Course Title

Hydraulic and Pneumatic Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

MECH2370 - Industrial Process Controls

Course Title

Industrial Process Controls

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1305 - AC Circuits (3)

MECH2372 - Essentials to Advance PLC

Course Title

Essentials to Advance PLC

Academic Level

Undergraduate

Description

Advanced applications of programmable logic controllers as used in industrial environments including concepts of networking, data collection, and troubleshooting of PLCs.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - MECH1372 - Basic Programmable Logic Controllers (3)

The image shows a diagram.

MECH2373 - Industry 4.0 Project
Course Title

Industry 4.0 Project

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - MECH2472 - Communication Protocols (4)
    - MECH1373 - Motion Control (3)

MECH2374 - Robotics Communication

Course Title

Robotics Communication

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

MECH2375 - Production Control

Course Title

Production Control

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - CETT1305 - AC Circuits (3)

MECH2378 - Internship-Mechatronics Technology
Course Title

Internship-Mechatronics Technology

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

10

Total Contact Hours

160

Credits

3

Semester Credit Hours

3

MECH2471 - Industrial Control Devices

Course Title

Industrial Control Devices

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - MECH1373 - Motion Control (3)

MECH2472 - Communication Protocols
<u>Course Title</u>

Communication Protocols

<u>Academic Level</u>

Undergraduate

<u>Description</u>

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.

<u>Lecture Hours</u>

2

<u>Lab Hours</u>

4

<u>Ext. Con. Hrs</u>

0

<u>Total Contact Hours</u>

96

<u>Credits</u>

4

<u>Semester Credit Hours</u>

4

Music

MUSI1306 - Music Appreciation
Course Title

Music Appreciation

Academic Level

Undergraduate

Description

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.)

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Non-Course Base Math

NCBM0040 - Pedal to the Metal
Course Title

Pedal to the Metal

Academic Level

Undergraduate

Description

A refresher designed to help students improve their score on the math portion of the TSI Assessment.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

4

Semester Credit Hours

0

NCBM0100 - BASE Math Lab
Course Title

 BASE Math Lab

Academic Level

 Undergraduate

Description

 This course supports students in DMTH 0100.

Lecture Hours

 0

Lab Hours

 2

Ext. Con. Hrs

 0

Total Contact Hours

 32

Credits

 0

Semester Credit Hours

 0

NCBM0314 - Math Basics for College Algebra
Course Title

 Math Basics for College Algebra

Academic Level

 Undergraduate

Description

 Development of math and higher order thinking skills necessary for college readiness.

Lecture Hours

 0

Lab Hours

 3

Ext. Con. Hrs

 0

Total Contact Hours

 48

Credits

Semester Credit Hours

 0

NCBM0316 - Math Basics for Trigonometry
Course Title

Math Basics for Trigonometry

Academic Level

Undergraduate

Description

Development of math and higher order thinking skills necessary for college readiness.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

Semester Credit Hours

0

NCBM0332 - Math Basics for Contemporary Math
Course Title

Math Basics for Contemporary Math

Academic Level

Undergraduate

Description

Development of math and higher order thinking skills necessary for college readiness.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

Semester Credit Hours

0

Nursing Information Systems

RNSG1046 - Legal Nurse Consulting
Course Title

Legal Nurse Consulting

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

RNSG1210 - Introduction to Community-Based Nursing
Course Title

Introduction to Community-Based Nursing

Academic Level

Undergraduate

Description

Overview of the delivery of nursing care in a variety of community-based settings to promote health; application of clinical reasoning processes and clinical judgment, 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.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

Corequisites

- Completed or concurrently enrolled in:
    - RNSG1261 - Clinical - Registered Nursing/Registered Nurse (2)

RNSG1227 - Transition to Professional Nursing

<u>**Course Title**</u>

Transition to Professional Nursing

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Content includes health promotion, expanded assessment, analysis of data, clinical reasoning processes and clinical judgment, 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.

<u>**Lecture Hours**</u>

1

<u>**Lab Hours**</u>

3

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

64

<u>**Credits**</u>

2

<u>**Semester Credit Hours**</u>

2

<u>**Corequisites**</u>

- Completed or concurrently enrolled in:
    - RNSG1261 - Clinical - Registered Nursing/Registered Nurse (2)

RNSG1261 - Clinical - Registered Nursing/Registered Nurse

Course Title

Clinical - Registered Nursing/Registered Nurse

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

8

Total Contact Hours

128

Credits

2

Semester Credit Hours

2

Corequisites

- Completed or concurrently enrolled in:
    - RNSG1227 - Transition to Professional Nursing (2)
    - RNSG1210 - Introduction to Community-Based Nursing (2)

RNSG1300 - Health Assessment Across the Lifespan

Course Title

Health Assessment Across the Lifespan

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

RNSG1301 - Pharmacology
Course Title

Pharmacology

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

RNSG1343 - Complex Concepts of Adult Health
Course Title

Complex Concepts of Adult Health

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - RNSG1227 - Transition to Professional Nursing (2)

Corequisites

- Concurrently enrolled in:
    - RNSG2262 - Clinical - Registered Nursing/Registered Nurse (2)

RNSG1412 - Nursing Care of the Childbearing and Childrearing Family

Course Title

Nursing Care of the Childbearing and Childrearing Family

Academic Level

Undergraduate

Description

Study of the concepts related to the provision of nursing care for childbearing and childrearing families. Application of clinical reasoning processes and clinical judgment including a focus on the childbearing family during the prenatal, perinatal, postnatal periods and the childrearing family from birth through adolescence; and competency in knowledge, judgment, skill, and professional values within a legal/ethical framework. This course lends itself to a blocked approach.

Lecture Hours

3

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

4

Semester Credit Hours

4

Corequisites

- Completed or concurrently enrolled in:
  - RNSG2262 - Clinical - Registered Nursing/Registered Nurse (2)

RNSG1463 - Clinical - Registered Nursing/Registered Nurse

Course Title

Clinical - Registered Nursing/Registered Nurse

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

12

Total Contact Hours

192

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - RNSG2162 - Clinical - Registered Nursing/Registered Nurse (1)

Corequisites

- Completed or concurrently enrolled in:
    - RNSG2432 - Enhanced Concepts of Adult Health (4)

RNSG2017 - Dialysis Training-Theory
Course Title

Dialysis Training-Theory

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

RNSG2162 - Clinical - Registered Nursing/Registered Nurse

Course Title

Clinical - Registered Nursing/Registered Nurse

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

6

Total Contact Hours

96

Credits

1

Semester Credit Hours

1

Prerequisites

- Complete the following:
    - RNSG1261 - Clinical - Registered Nursing/Registered Nurse (2)

Corequisites

- Completed or concurrently enrolled in:
    - RNSG2213 - Mental Health Nursing (2)

RNSG2213 - Mental Health Nursing

Course Title

Mental Health Nursing

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

2

Semester Credit Hours

2

RNSG2221 - Professional Nursing: Leadership and Management
Course Title

Professional Nursing: Leadership and Management

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
  - RNSG2162 - Clinical - Registered Nursing/Registered Nurse (1)

RNSG2230 - Professional Nursing Review and Licensure Preparation

Course Title

Professional Nursing Review and Licensure Preparation

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
    - RNSG2162 - Clinical - Registered Nursing/Registered Nurse (1)

RNSG2262 - Clinical - Registered Nursing/Registered Nurse
Course Title

Clinical - Registered Nursing/Registered Nurse

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

9

Total Contact Hours

144

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
  - RNSG1261 - Clinical - Registered Nursing/Registered Nurse (2)

Corequisites

- Completed or concurrently enrolled in:
  - RNSG1343 - Complex Concepts of Adult Health (3)

RNSG2432 - Enhanced Concepts of Adult Health
Course Title

Enhanced Concepts of Adult Health

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - RNSG2262 - Clinical - Registered Nursing/Registered Nurse (2)

Corequisites

- Completed or concurrently enrolled in:
    - RNSG1463 - Clinical - Registered Nursing/Registered Nurse (4)

Pharmacy Technician/Assistant

PHRA1060 - Pharmacy Technician/Asst
Course Title

Pharmacy Technician/Asst

Academic Level

Continuing Education

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

50

Semester Credit Hours

0

PHRA1091 - Pharmacy
Course Title

Pharmacy

Academic Level

Continuing Education

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

70

Semester Credit Hours

0

Philosophy

PHIL1301 - Introduction to Philosophy
Course Title

Introduction to Philosophy

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

PHIL1304 - Introduction to World Religions
Course Title

Introduction to World Religions

Academic Level

Undergraduate

Description

A comparative study of world religions, including but not limited to Hinduism, Buddhism, Judaism, Christianity, and Islam.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

PHIL2303 - Introduction to Formal Logic
Course Title

Introduction to Formal Logic

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

PHIL2306 - Introduction to Ethics
Course Title

Introduction to Ethics

Academic Level

Undergraduate

Description

The systematic evaluation of classical and/or contemporary ethical theories concerning the good life, human conduct in society, morals, and standards of value.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Phlebotomy(Blood Collection)

PLAB1023 - Phlebotomy
Course Title

Phlebotomy

Academic Level

Continuing Education

Description

Skill development in the performance of a variety of blood collection methods using proper techniques and universal precautions. Includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, proper patient identification, labeling of specimens and quality assurance, specimen handling, processing, and accessioning. Topics include professionalism, ethics, and medical terminology.

Lecture Hours

5

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

80

Semester Credit Hours

0

PLAB2000 - Professional Development Phleb
Course Title

Professional Development Phleb

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

Physics

PHYS1101 - College Physics Laboratory I
Course Title

College Physics Laboratory I

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

Corequisites

- Completed or concurrently enrolled in:
    - PHYS1301 - College Physics I (lecture) (3)

PHYS1102 - College Physics Lab II

Course Title

College Physics Lab II

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

Corequisites

- Completed or concurrently enrolled in:
    - PHYS1302 - College Physics II (lecture) (3)

PHYS1110 - Elementary Physics
Course Title

Elementary Physics

Academic Level

Undergraduate

Description

Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

PHYS1115 - Physical Science Lab I
Course Title

Physical Science Lab I

Academic Level

Undergraduate

Description

Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

1

Semester Credit Hours

1

PHYS1117 - Physical Science Lab II

Course Title

Physical Science Lab II

Academic Level

Undergraduate

Description

Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

1

Semester Credit Hours

1

PHYS1301 - College Physics I (lecture)
<u>**Course Title**</u>

College Physics I (lecture)

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

48

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete all of the following
  - Complete the following:
    - MATH1314 - College Algebra (3 SCH version) (3)
  - Complete at least 1 of the following:
    - MATH1316 - Plane Trigonometry (3)
    - MATH2312 - Pre-Calculus Math (3 SCH version) (3)

<u>**Corequisites**</u>

- Completed or concurrently enrolled in:
  - PHYS1101 - College Physics Laboratory I (1)

PHYS1302 - College Physics II (lecture)
Course Title

College Physics II (lecture)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete all of the following
    - Complete the following:
        - PHYS1301 - College Physics I (lecture) (3)
    - Complete at least 1 of the following:
        - PHYS1101 - College Physics Laboratory I (1)
        - PHYS1401 - College Physics I (4)

Corequisites

- Completed or concurrently enrolled in:
    - PHYS1102 - College Physics Lab II (1)

PHYS1310 - Elementary Physics
Course Title

Elementary Physics

Academic Level

Undergraduate

Description

Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

PHYS1315 - Physical Science I (lecture)
Course Title

Physical Science I (lecture)

Academic Level

Undergraduate

Description

Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

PHYS1317 - Physical Science II
Course Title

Physical Science II

Academic Level

Undergraduate

Description

Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

PHYS1401 - College Physics I
Course Title

College Physics I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

PHYS1402 - College Physics II

Course Title

College Physics II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

PHYS1410 - Elementary Physics

Course Title

Elementary Physics

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

PHYS1415 - Physical Science I
Course Title

Physical Science I

Academic Level

Undergraduate

Description

Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

PHYS1417 - Physical Science II Physical Science II
Course Title

Physical Science II Physical Science II

Academic Level

Undergraduate

Description

Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meterology.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

PHYS2125 - University Physics Laboratory I (lab)

Course Title

University Physics Laboratory I (lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

Corequisites

- Completed or concurrently enrolled in:
    - PHYS2325 - University Physics I (lecture) (3)

PHYS2126 - University Physics Laboratory II (lab)
Course Title

University Physics Laboratory II (lab)

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

Corequisites

- Completed or concurrently enrolled in:
    - PHYS2326 - University Physics II (lecture) (3)

PHYS2325 - University Physics I (lecture)

<u>**Course Title**</u>

University Physics I (lecture)

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

48

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - MATH2413 - Calculus I (4 SCH version) (4)

<u>**Corequisites**</u>

- Completed or concurrently enrolled in:
    - PHYS2125 - University Physics Laboratory I (lab) (1)

PHYS2326 - University Physics II (lecture)

<u>**Course Title**</u>

University Physics II (lecture)

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

48

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - PHYS2325 - University Physics I (lecture) (3)
    - MATH2414 - Calculus II (4 SCH version) (4)

<u>**Corequisites**</u>

- Completed or concurrently enrolled in:
    - PHYS2126 - University Physics Laboratory II (lab) (1)

PHYS2425 - University Physics I
Course Title

University Physics I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

PHYS2426 - University Physics II
Course Title

University Physics II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Pipefitting

PFPB1007 - Introduction to Pipefitting
Course Title

Introduction to Pipefitting

Academic Level

Continuing Education

Description

Instruction in pipefitting hand and power tools, ladder, and scaffold safety motorized equipment, and underground pipe installation.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

PFPB1020 - Tradesman Plumber Training Rev
Course Title

Tradesman Plumber Training Rev

Academic Level

Continuing Education

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

18

Semester Credit Hours

0

PFPB1024 - Journeyman Plumber Training Review

Course Title

Journeyman Plumber Training Review

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

PFPB1051 - Commercial and Industrial Gas Installati

Course Title

Commercial and Industrial Gas Installati

Academic Level

Continuing Education

Description

Principles, code requirements, and practical knowledge needed to identify, design, and install commercial and industrial gas supply systems. Includes safety procedures for installation and testing.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

PFPB1306 - Basic Blueprint Reading for Plumbers

Course Title

Basic Blueprint Reading for Plumbers

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PFPB1319 - Commercial Plumbing I

Course Title

Commercial Plumbing I

Academic Level

Undergraduate

Description

Skills, procedures, and techniques used in the installation of hot and cold potable water supply systems and drain, waste, and vent (DWV) systems in commercial buildings.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - PFPB1323 - Plumbing Codes I (3)
    - PFPB1306 - Basic Blueprint Reading for Plumbers (3)
    - PFPB2349 - Field Measuring, Sketching, and Layout (3)

PFPB1321 - Plumbing Maintenance and Repair
Course Title

Plumbing Maintenance and Repair

Academic Level

Undergraduate

Description

Instruction in the practices and procedures employed by a plumber including public relations.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PFPB1323 - Plumbing Codes I
Course Title

Plumbing Codes I

Academic Level

Undergraduate

Description

State and local plumbing codes and the application of potable water, waste water, and gas systems relating to residential and light commercial settings.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PFPB1347 - Backflow Prevention
Course Title

Backflow Prevention

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PFPB1682 - Cooperative Education - Plumbing Technology/Plumber

Course Title

Cooperative Education - Plumbing Technology/Plumber

Academic Level

Undergraduate

Description

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.

Additional Course Information

Students are required to complete 640 total contact hours in the semester. The student should complete 39 external contact hours per week and 1 lecture contact hour per week with a contact hour being at least 55 minutes.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

39

Total Contact Hours

640

Credits

6

Semester Credit Hours

6

PFPB1683 - Cooperative Education - Plumbing Technology/Plumber
Course Title

Cooperative Education - Plumbing Technology/Plumber

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

39

Total Contact Hours

640

Credits

6

Semester Credit Hours

6

PFPB2001 - Plumbing Review
Course Title

Plumbing Review

Academic Level

Continuing Education

Description

License renewal course. Includes laws and rules, cross-connection control and backflow prevention, mold contamination, fall protection, hepatitis protection, and copper tubing and piping.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

6

Semester Credit Hours

0

PFPB2008 - Piping Standards and Materials

Course Title

Piping Standards and Materials

Academic Level

Continuing Education

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

PFPB2308 - Piping Standards and Materials

Course Title

Piping Standards and Materials

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PFPB2309 - Residential Construction Plumbing I
Course Title

Residential Construction Plumbing I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PFPB2315 - Intermediate Technologies for Piping Trades
Course Title

Intermediate Technologies for Piping Trades

Academic Level

Undergraduate

Description

Piping techniques and materials within the pipe trades. Includes pipefitting procedures for applications and upgrades on techniques and practices designed to deal with federal, state, and local environmental and safety regulations.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PFPB2336 - Commercial Construction and Fixture Setting
Course Title

Commercial Construction and Fixture Setting

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PFPB2343 - Advanced Pipe Practices
Course Title

Advanced Pipe Practices

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PFPB2345 - Residential Construction Plumbing II
Course Title

Residential Construction Plumbing II

Academic Level

Undergraduate

Description

Installation of residential plumbing fixtures used in single- and multi-family housing.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - PFPB2309 - Residential Construction Plumbing I (3)

PFPB2349 - Field Measuring, Sketching, and Layout
Course Title

Field Measuring, Sketching, and Layout

Academic Level

Undergraduate

Description

Field dimensioning, measuring, sketching, and layout of future process piping and the use, care, and setup of transit and level.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PFPB2357 - Plumbing Codes II
Course Title

Plumbing Codes II

Academic Level

Undergraduate

Description

The application of state and local plumbing codes to potable water, waste water, and gas systems relating to residential and commercial settings.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Plastics Technology

PLTC1343 - Mold Design and Maintenence

Course Title

Mold Design and Maintenence

Academic Level

Undergraduate

Description

A study of the basic design parameters of plastic injection molds including mold flow, nominal walls projection, depressions, ejector systems, runners, gates, parting lines, and general mold configurations. Emphasis on maintenance techniques on in house molds

Lecture Hours

2

Lab Hours

4

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - MCHN1454 - Intermediate Machining II (4)

Practical Nurse

VNSG1119 - Leadership and Professional Development
Course Title

Leadership and Professional Development

Academic Level

Undergraduate

Description

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.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Credits

1

Semester Credit Hours

1

VNSG1219 - Leadership and Professional Development

Course Title

Leadership and Professional Development

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

VNSG1230 - Maternal-Neonatal Nursing

Course Title

Maternal-Neonatal Nursing

Academic Level

Undergraduate

Description

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 and clinical judgement model 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.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

VNSG1261 - Clinical - Licensed Practical/Vocational Nurse Training

Course Title

Clinical - Licensed Practical/Vocational Nurse Training

Academic Level

Undergraduate

Description

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.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

12

Total Contact Hours

192

Credits

2

Semester Credit Hours

2

VNSG1304 - Foundations of Nursing

Course Title

Foundations of Nursing

Academic Level

Undergraduate

Description

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, patient preference, nursing process using clinical judgement model, and holistic awareness.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

VNSG1327 - Essentials of Medication Administration
Course Title

Essentials of Medication Administration

Academic Level

Undergraduate

Description

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.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

VNSG1329 - Medical-Surgical Nursing I

Course Title

Medical-Surgical Nursing I

Academic Level

Undergraduate

Description

Application of the nursing process and clinical judgement model to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

VNSG1331 - Pharmacology

Course Title

Pharmacology

Academic Level

Undergraduate

Description

Fundamentals of medications and their diagnostic, therapeutic, and curative effects. Includes nursing interventions utilizing the nursing process and clinical judgement model.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

VNSG1334 - Pediatrics

Course Title

Pediatrics

Academic Level

Undergraduate

Description

Study of the care of the pediatric patient and family during health and disease. Emphasis on growth and developmental needs utilizing the nursing process and clinical judgement model.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

VNSG1402 - Applied Nursing Skills I

Course Title

Applied Nursing Skills I

Academic Level

Undergraduate

Description

Introduction to and application of primary nursing skills. Emphasis on utilization of the nursing process and related scientific principles and the clinical judgement model.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

VNSG1432 - Medical-Surgical Nursing II

Course Title

Medical-Surgical Nursing II

Academic Level

Undergraduate

Description

Continuation of Medical-Surgical Nursing I with application of the nursing process and clinical judgement model to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

3

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

4

Semester Credit Hours

4

VNSG1462 - Clinical - Licensed Practical/Vocational Nurse Training

Course Title

Clinical - Licensed Practical/Vocational Nurse Training

Academic Level

Undergraduate

Description

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.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

12

Total Contact Hours

192

Credits

4

Semester Credit Hours

4

VNSG2050 - NCLEX-PN Review Course

Course Title

NCLEX-PN Review Course

Academic Level

Continuing Education

Description

Review of nursing knowledge and skills, study skills, stress management techniques, and test taking strategies to prepare the graduate vocational nurse (GVN) to take the National Licensure Examination-Practical Nurse (NCLEX-PN).

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

VNSG2413 - Applied Nursing Skills II

Course Title

Applied Nursing Skills II

Academic Level

Undergraduate

Description

Application of nursing skills to meet complex patient needs utilizing the nursing process, clinical reasoning/judgment model, and related scientific principles.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

3

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

112

Credits

4

Semester Credit Hours

4

VNSG2463 - Clinical - Licensed Practical/Vocational Nurse Training

Course Title

Clinical - Licensed Practical/Vocational Nurse Training

Academic Level

Undergraduate

Description

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.

Additional Course Information

Differentiated Essential Competencies (DEC): DECs are defined as competencies determined by the Texas Board of Nursing for each level of nursing education that should typically be achieved by exit from the program. The competencies document the background knowledge which can be used upon exit from the program to progress from beginner to expert. The DEC framework consists of knowledge and clinical judgment and behaviors in the following four nursing roles: Member of the Profession; Provider of Patient Centered Care; Patient-Safety Advocate; Member of the Health Care Team. The Course Competencies can be found in the Vocational Nursing Student Handbook.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

12

Total Contact Hours

192

Credits

4

Semester Credit Hours

4

Pre-Engineering

ENGR1201 - Introduction to Engineering

Course Title

Introduction to Engineering

Academic Level

Undergraduate

Description

An introduction to the engineering profession with emphasis on technical communication and team-based engineering design.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

Prerequisites

- Complete the following:
  - MATH1314 - College Algebra (3 SCH version) (3)

ENGR1304 - Engineering Graphics I (3 Sch version)

Course Title

Engineering Graphics I (3 Sch version)

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - MATH1314 - College Algebra (3 SCH version) (3)

ENGR2105 - Electrical Circuits I Laboratory

Course Title

Electrical Circuits I Laboratory

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

ENGR2301 - Engineering Mechanics - Statics (3 SCH version)
Course Title

Engineering Mechanics - Statics (3 SCH version)

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - PHYS2325 - University Physics I (lecture) (3)

ENGR2302 - Engineering Mechanics - Dynamics (3 SCH version)
<u>**Course Title**</u>

Engineering Mechanics - Dynamics (3 SCH version)

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

48

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - ENGR2301 - Engineering Mechanics - Statics (3 SCH version) (3)

ENGR2304 - Programming for Engineers

Course Title

Programming for Engineers

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ENGR2305 - Electrical Circuits I

Course Title

Electrical Circuits I

Academic Level

Undergraduate

Description

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

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - PHYS2325 - University Physics I (lecture) (3)
    - MATH2414 - Calculus II (4 SCH version) (4)

Professional Skills and Workforce Essentials

HIRE1100 - Foundations for Career Success

Course Title

Foundations for Career Success

Academic Level

Undergraduate

Description

All TSTC students participating in the TSTC Money Back Guarantee program are required to successfully complete HIRE 1100 Foundations for Career Success. This one-credit-hour course focuses on professional skills and workforce essentials: job readiness, resume writing, interview skills, soft skills, job search strategies, networking, and career planning in order to prepare students for workplace success. All students will automatically be enrolled in HIRE 1100; satisfactory grade completion of HIRE 1100 determines eligibility for the TSTC Money Back Guarantee initiative.

Lecture Hours

1

Lab Hours

1

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

1

Semester Credit Hours

1

Psychology

PSYC1100 - Learning Framework

Course Title

Learning Framework

Academic Level

Undergraduate

Description

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)

Lecture Hours

1

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

1

Semester Credit Hours

1

PSYC2301 - General Psychology
Course Title

General Psychology

Academic Level

Undergraduate

Description

General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes.

Lecture Hours

3

Lab Hours

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

PSYC2314 - Lifespan Growth & Development
Course Title

Lifespan Growth & Development

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

PSYT1007 - Crisis Intervention for Victims of Sexual Assault/Abuse
Course Title

 Crisis Intervention for Victims of Sexual Assault/Abuse

Academic Level

 Continuing Education

Description

 INTRODUCTION TO THE PAYCHOSOCIAL ASPECTS OF SEXUAL ABUSE/ASSAULT AND INTERVEWNTION STRATEGIES.

Lecture Hours

 0

Lab Hours

 0

Ext. Con. Hrs

 0

Total Contact Hours

 7

Semester Credit Hours

 0

PSYT1024 - Health Profession Concerns
Course Title

 Health Profession Concerns

Academic Level

 Continuing Education

Lecture Hours

 0

Lab Hours

 0

Ext. Con. Hrs

 0

Total Contact Hours

 7

Semester Credit Hours

 0

PSYT1091 - Autism Recognition & Response
Course Title

Autism Recognition & Response

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

8

Semester Credit Hours

0

PSYT1313 - Psychology of Personal Adjustment
Course Title

Psychology of Personal Adjustment

Academic Level

Undergraduate

Description

Overview of personal, social, and work adjustment skills.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Reading/Writing Refresher

NCBI0040 - Communication Blast Off
Course Title

Communication Blast Off

Academic Level

Undergraduate

Description

A refresher designed to help students improve their score on the reading and writing portions of the TSI Assessment.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

4

Semester Credit Hours

0

NCBI0100 - BASE Reading/Writing Lab
Course Title

BASE Reading/Writing Lab

Academic Level

Undergraduate

Description

This course supports students in INRW 0100.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

0

Semester Credit Hours

0

NCBI0301 - Reading and Writing Basics for Composition I
Course Title

Reading and Writing Basics for Composition I

Academic Level

Undergraduate

Description

Developmental reading and writing skills necessary for college readiness.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

Semester Credit Hours

0

NCBI0305 - Reading and Writing Fundamentals for Federal Government
Course Title

Reading and Writing Fundamentals for Federal Government

Academic Level

Undergraduate

Description

Developmental reading and writing skills necessary for college readiness.

Lecture Hours

0

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

32

Semester Credit Hours

0

NCBI0311 - Reading and Writing Fundamentals For Technical and Business Writing
Course Title

Reading and Writing Fundamentals For Technical and Business Writing

Academic Level

Undergraduate

Description

Developmental reading and writing skills necessary for college readiness.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

Semester Credit Hours

0

NCBI0312 - Reading and Writing Fundamentals for United States History II
Course Title

Reading and Writing Fundamentals for United States History II

Academic Level

Undergraduate

Description

Developmental reading and writing skills necessary for college readiness.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

0

NCBI0315 - Reading and Writing Fundamentals for Public Speaking
Course Title

Reading and Writing Fundamentals for Public Speaking

Academic Level

Undergraduate

Description

Developmental reading and writing skills necessary for college readiness.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

0

NCBI0321 - Reading and Writing Fundamentals for Introduction to Humanities
Course Title

Reading and Writing Fundamentals for Introduction to Humanities

Academic Level

Undergraduate

Description

Developmental reading and writing skills necessary for college readiness.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

0

NCBI0322 - Reading and Writing Fundamentals for General Psychology
Course Title

Reading and Writing Fundamentals for General Psychology

Academic Level

Undergraduate

Description

Developmental reading and writing skills necessary for college readiness.

Lecture Hours

0

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

Robotics

RBTC1009 - Pneumatics
Course Title

Pneumatics

Academic Level

Continuing Education

Description

A study of principles of pneumatics, including formulas, functions, and circuits with hands-on experience in these industrial automated systems.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

60

Semester Credit Hours

0

RBTC1047 - Electro-Mechanical Devices
Course Title

Electro-Mechanical Devices

Academic Level

Continuing Education

Description

A study of basic electro-mechanical devices found in robotic systems, including transformers, switches, and solid state relays.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Semester Credit Hours

0

RBTC1301 - Programmable Logic Controllers

Course Title

Programmable Logic Controllers

Academic Level

Undergraduate

Description

A study in programmable logic controllers (PLC). Topics include processor units, numbering systems, memory organization, relay type devices, timers, counters, data manipulators, and programming.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ELPT1341 - Motor Control (3)
    - INTC1357 - AC/DC Motor Control (3)

RBTC1309 - Pneumatics

Course Title

Pneumatics

Academic Level

Undergraduate

Description

A study of principles of pneumatics, including formulas, functions, and circuits with hands-on experience in these industrial automated systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - HYDR1305 - Basic Hydraulics (3)

RBTC1341 - Vision Systems

Course Title

Vision Systems

Academic Level

Undergraduate

Description

An overview of machine vision systems, including terminology and components. Topics include optics, sensors, lighting, image analysis, and user interfaces.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - RBTC2339 - Robot Programming and Diagnostics (3)

RBTC1343 - Robotics
Course Title

Robotics

Academic Level

Undergraduate

Description

Principles and applications of robots. Includes installation, interfacing, programming, maintenance, and safety of robots and robotic cells.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete at least 1 of the following:
    - CETT1303 - DC Circuits (3)
    - IEIR1302 - Introduction to Direct Current Circuits (3)

RBTC1345 - Robot Interfacing

Course Title

Robot Interfacing

Academic Level

Undergraduate

Description

A study of the basic principles of robot controllers, controller input/output, memory, and interfacing with computer integrated manufacturing.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - RBTC2339 - Robot Programming and Diagnostics (3)
  - RBTC1347 - Electro-Mechanical Devices (3)
  - RBTC1301 - Programmable Logic Controllers (3)

RBTC1347 - Electro-Mechanical Devices

Course Title

Electro-Mechanical Devices

Academic Level

Undergraduate

Description

A study of electro-mechanical devices found in robotic systems. Includes switches and relays.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

RBTC1355 - Sensors
Course Title

Sensors

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - RBTC2339 - Robot Programming and Diagnostics (3)
    - RBTC1347 - Electro-Mechanical Devices (3)

RBTC1371 - Industrial Motors and Drives
Course Title

Industrial Motors and Drives

Academic Level

Undergraduate

Description

Choosing, installation and troubleshooting of 3-phase motors and variable speed drives ,with emphasis on wiring and controls of industrial motors.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - RBTC1301 - Programmable Logic Controllers (3)
    - ELPT1341 - Motor Control (3)

RBTC1391 - Special Topics in Robotics Technology

Course Title

Special Topics in Robotics Technology

Academic Level

Undergraduate

Description

This course will design and construct automated robotics systems for training.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

RBTC2335 - Numerical Controlled/Computer Numerical Control Programming

Course Title

Numerical Controlled/Computer Numerical Control Programming

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - RBTC1345 - Robot Interfacing (3)
    - RBTC1355 - Sensors (3)

RBTC2339 - Robot Programming and Diagnostics
Course Title

Robot Programming and Diagnostics

Academic Level

Undergraduate

Description

Emphasis on the programming of industrial robots, the development of programming techniques, and the diagnosis of faults in systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - RBTC1343 - Robotics (3)

RBTC2345 - Robot Application, Set-up, and Testing

Course Title

Robot Application, Set-up, and Testing

Academic Level

Undergraduate

Description

A capstone course that provides the student with laboratory experience in the installation, set-up, and testing of robotic cells. Topics include maintenance.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - RBTC1345 - Robot Interfacing (3)
    - RBTC1355 - Sensors (3)

RBTC2347 - Computer Integrated Manufacturing
<u>**Course Title**</u>

Computer Integrated Manufacturing

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

The principles of computer integrated manufacturing, including case studies and implementation of process control techniques, CAD/CAM, operations, software, and networking for CIM systems.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - RBTC1345 - Robot Interfacing (3)
    - RBTC1355 - Sensors (3)

RBTC2375 - Human Machine Interface Programming and Interfacing
Course Title

Human Machine Interface Programming and Interfacing

Academic Level

Undergraduate

Description

An overview of Human Machine Interface (HMI) devices and their use in industrial automation. Programming HMIs for use with automated systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - RBTC1345 - Robot Interfacing (3)
  - RBTC1301 - Programmable Logic Controllers (3)

Safety and Health

OSHT1000 - Basic Safety and Health
Course Title

Basic Safety and Health

Academic Level

Continuing Education

Description

Basic concepts of safety and health.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

8

Semester Credit Hours

0

OSHT1003 - Workplace Safety
Course Title

Workplace Safety

Academic Level

Continuing Education

Description

Provides an introduction to specific training techniques involving the safe handling of blood and airborne pathogens as well as the general safety and security on the premises. Addresses the right to know and Manufacturers Safety Data Sheets (MSDS). Outlines Occupational Safety and Health regulations.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

10

Semester Credit Hours

0

OSHT1005 - Osha Regulations-Const. Indus
Course Title

Osha Regulations-Const. Indus

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

OSHT1015 - Safety and Accident Prevention
Course Title

Safety and Accident Prevention

Academic Level

Continuing Education

Description

Recognize and evaluate hazards in the workplace and implement control measures including engineering, administrative, and personal protective equipment.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

OSHT1017 - Basic Safety Communications
Course Title

Basic Safety Communications

Academic Level

Continuing Education

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

OSHT1091 - St in Occupational Safety and Health
Course Title

St in Occupational Safety and Health

Academic Level

Continuing Education

Description

ST IN OCCUPATIONAL SAFETY AND HEALTH TECHNOLOGY/TECHNICIAN

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

OSHT1209 - Physical Hazards Control
Course Title

Physical Hazards Control

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

OSHT1305 - OSHA Regulations - Construction Industry
Course Title

OSHA Regulations - Construction Industry

Academic Level

Undergraduate

Description

A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to the construction industry.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

OSHT1307 - Construction Site Safety and Health

Course Title

Construction Site Safety and Health

Academic Level

Undergraduate

Description

Introduction to safety requirements for construction sites including occupational health and environmental controls.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

OSHT1313 - Accident Prevention, Inspection, & Investigation

Course Title

Accident Prevention, Inspection, & Investigation

Academic Level

Undergraduate

Description

Provides a basis for understanding the nature of occupational hazard recognition, accident prevention, loss reduction, inspection techniques, and accident investigation analysis.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

OSHT1320 - Energy Industrial Safety
Course Title

Energy Industrial Safety

Academic Level

Undergraduate

Description

An overview for industrial workers of state/federal regulations and guidelines which require industrial safety training. Topics include the 29 C.F.R. 1910, 1926 and National Fire Protection Association (NFPA) 70E standards such as confined space entry, emergency action, lock out/tag out, arc flash, and other work related subjects.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

OSHT2001 - OSHA Regulations-General Industry
Course Title

OSHA Regulations-General Industry

Academic Level

Continuing Education

Description

A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to general industry.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

OSHT2209 - Safety Program Management
Course Title

Safety Program Management

Academic Level

Undergraduate

Description

Examine the major safety management issues that affect the workplace including safety awareness, loss control, regulatory issues, and human behavior modification.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

OSHT2320 - Safety Training Presentation Techniques
Course Title

Safety Training Presentation Techniques

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

OSHT2370 - Safety and Health First Aid Certification

Course Title

Safety and Health First Aid Certification

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

OSHT2388 - Internship - Occupational Safety and Health Technology/Technician
Course Title

Internship - Occupational Safety and Health Technology/Technician

Academic Level

Undergraduate

Description

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.

Additional Course Information

Students are required to complete 144 hours total in the semester. It is recommended that a student completes 9 hours per week for the 15 week semester.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

9

Total Contact Hours

144

Credits

3

Semester Credit Hours

3

OSHT2401 - OSHA Regulations - General Industry
Course Title

OSHA Regulations - General Industry

Academic Level

Undergraduate

Description

A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to general industry.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Science

SCIT1000 - Human Anatomy & Physiology
Course Title

Human Anatomy & Physiology

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

2

Total Contact Hours

24

Semester Credit Hours

0

SCIT1318 - Applied Physics
Course Title

Applied Physics

Academic Level

Undergraduate

Description

Introduction to physics for industrial applications including vectors, motion, mechanics, simple machines, matter, heat, and thermodynamics.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

SCIT1407 - Applied Human Anatomy and Physiology I
Course Title

Applied Human Anatomy and Physiology I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

SCIT1414 - Applied General Chemistry I
Course Title

Applied General Chemistry I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Small Engine Mechanic & Repair

SMER1434 - Small Engine Two Stroke Overhaul
Course Title

Small Engine Two Stroke Overhaul

Academic Level

Undergraduate

Description

Overhaul procedures for two stroke small engines as used in lawn and garden applications. Emphasis on proper shop procedures for overhaul of two stroke small engines.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

SMER1437 - Small Engine Four Stroke Engine
Course Title

Small Engine Four Stroke Engine

Academic Level

Undergraduate

Description

Overhaul procedures for four stroke small engines. Emphasis on shop procedures for overhauls.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

Sociology

SOCI1301 - Introduction to Sociology
Course Title

Introduction to Sociology

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

SOCI1306 - Social Problems
Course Title

Social Problems

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

SOCI2319 - Minority Studies I
Course Title

Minority Studies I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Solar Energy Technology

SOLR1272 - Foundations of Solar Photovoltaic Power Generation
Course Title

Foundations of Solar Photovoltaic Power Generation

Academic Level

Undergraduate

Description

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.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

SOLR1273 - Foundations of Solar Thermal Systems
Course Title

Foundations of Solar Thermal Systems

Academic Level

Undergraduate

Description

Discusses industry terminology, safety issues, solar thermal systems design and installation procedures.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

SOLR1371 - Introduction to Solar and Alternative Energy Technologies

Course Title

Introduction to Solar and Alternative Energy Technologies

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

SOLR1372 - Foundations of Solar Photovoltaic Power Generation
Course Title

Foundations of Solar Photovoltaic Power Generation

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

SOLR1373 - Foundations of Solar Thermal Systems
Course Title

Foundations of Solar Thermal Systems

Academic Level

Undergraduate

Description

Discusses industry terminology, safety issues, solar thermal systems design and installation procedures.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

SOLR2175 - Solar System Design, Installation, Troubleshooting & Repair
Course Title

Solar System Design, Installation, Troubleshooting & Repair

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

1

Semester Credit Hours

1

SOLR2275 - Solar System Design, Installation, Troubleshooting & Repair

Course Title

Solar System Design, Installation, Troubleshooting & Repair

Academic Level

Undergraduate

Description

Design considerations including site assessment and desired system operation, installation, commissioning, maintenance, operation, troubleshooting, repair and decommissioning. Review of safety issues, personal protection equipment, and tools of the trade associated with installation, operation, maintenance, troubleshooting and repair of solar systems.

Lecture Hours

1

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

2

Semester Credit Hours

2

SOLR2276 - Special Projects in Solar Energy Systems
<u>**Course Title**</u>

Special Projects in Solar Energy Systems

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

1

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

80

<u>**Credits**</u>

2

<u>**Semester Credit Hours**</u>

2

SOLR2374 - Photovoltaic Systems & Components
<u>**Course Title**</u>

Photovoltaic Systems & Components

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Design and operation of solar system equipment, components, subsystems, and balance of plant. Design considerations for large solar utility arrays to include environmental, architectural, structural, and legal requirements.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

SOLR2375 - Solar System Design, Installation, Troubleshooting & Repair
<u>**Course Title**</u>

Solar System Design, Installation, Troubleshooting & Repair

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - SOLR1371 - Introduction to Solar and Alternative Energy Technologies (3)
    - SOLR1372 - Foundations of Solar Photovoltaic Power Generation (3)
    - SOLR2374 - Photovoltaic Systems & Components   (3)

SOLR2376 - Special Projects in Solar Energy Systems

Course Title

Special Projects in Solar Energy Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - SOLR1371 - Introduction to Solar and Alternative Energy Technologies (3)
    - SOLR1372 - Foundations of Solar Photovoltaic Power Generation (3)
    - SOLR2374 - Photovoltaic Systems & Components   (3)

SOLR2377 - Codes for Alternative Energy, Efficiency & Conservation
<u>Course Title</u>

Codes for Alternative Energy, Efficiency & Conservation

<u>Academic Level</u>

Undergraduate

<u>Description</u>

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.

<u>Lecture Hours</u>

2

<u>Lab Hours</u>

4

<u>Ext. Con. Hrs</u>

0

<u>Total Contact Hours</u>

96

<u>Credits</u>

3

<u>Semester Credit Hours</u>

3

<u>Prerequisites</u>

- Complete the following:
    - SOLR1371 - Introduction to Solar and Alternative Energy Technologies (3)
    - SOLR1372 - Foundations of Solar Photovoltaic Power Generation (3)
    - SOLR2374 - Photovoltaic Systems & Components   (3)

Spanish

SPAN1311 - Beginning Spanish I
Course Title

Beginning Spanish I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

SPAN1312 - Beginning Spanish II
Course Title

Beginning Spanish II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

SPAN1411 - Beginning Spanish I

Course Title

Beginning Spanish I

Academic Level

Undergraduate

Description

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.

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

4

SPAN1412 - Beginning Spanish II

Course Title

Beginning Spanish II

Academic Level

Undergraduate

Description

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.

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

4

Special Topics Petroleum

PTRT1003 - Drilling
Course Title

Drilling

Academic Level

Continuing Education

Description

A study of practices and procedures that are involved in drilling operations. Topics on rig equipment, casing design, fishing, and proper procedures to successfully drill a well are implemented. Instruction in volume calculations, hydrostatic pressures, formations pressures, and analyzing problems in downhill drilling operations.

Lecture Hours

10

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

160

Semester Credit Hours

0

PTRT1006 - Drilling Fluids
Course Title

Drilling Fluids

Academic Level

Continuing Education

Description

A study of the functions and properties of the fluids used in drilling an oil or gas well. The various types of mud systems for different formations will be discussed and developed.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

40

Semester Credit Hours

0

PTRT1013 - Industrrial Safety
Course Title

Industrrial Safety

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

PTRT1301 - Introduction to Petroleum Industry
Course Title

Introduction to Petroleum Industry

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PTRT1307 - Recovery and Production Methods
Course Title

Recovery and Production Methods

Academic Level

Undergraduate

Description

Petroleum recovery and production methods.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

PTRT1317 - Natural Gas Processing I
Course Title

Natural Gas Processing I

Academic Level

Undergraduate

Description

An overview of natural gas processing operations. Topics include fundamentals of gas processing, the scientific principles and how they apply to the process, processing equipment, and procedures.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

48

Total Contact Hours

0

Credits

3

Semester Credit Hours

3

PTRT1401 - Introduction to Petroleum Industry
Course Title

Introduction to Petroleum Industry

Academic Level

Undergraduate

Description

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.

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

4

Semester Credit Hours

4

PTRT1413 - Industrial Safety
Course Title

Industrial Safety

Academic Level

Undergraduate

Description

An overview for petroleum and manufacturing workers of state/federal regulations and guidelines which require industrial safety training. Topics include the 29 C.F.R 1910, 1926 standards.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

PTRT1471 - Downhole Tool Redressing
Course Title

Downhole Tool Redressing

Academic Level

Undergraduate

Description

Topics address recently identified skills and knowledge pertinent to working in the oil and gas shop environments. This course has been designed to prepare a student for redressing the downhole tools used in the oil well servicing industry.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

PTRT2025 - Petroleum Safety and Environmental Hazar
Course Title

Petroleum Safety and Environmental Hazar

Academic Level

Continuing Education

Description

Various hazards associated with the petroleum industry.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

PTRT2323 - Natural Gas Production
Course Title

Natural Gas Production

Academic Level

Undergraduate

Description

An overview of the aspects of natural gas and oil production including various aspects of hydrocarbon production, processing equipment, and gas compression/transportation systems.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Speech

SPCH1311 - Introduction to Speech Communication
Course Title

Introduction to Speech Communication

Academic Level

Undergraduate

Description

Introduces basic human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

SPCH1315 - Public Speaking
Course Title

Public Speaking

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

SPCH1318 - Interpersonal Communication
Course Title

Interpersonal Communication

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

SPCH1321 - Business & Professional Communication
Course Title

Business & Professional Communication

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

SPCHX3XX - Gen Ed Speech Elective

Course Title

Gen Ed Speech Elective

Academic Level

Undergraduate

Description

Speech Elective - 3 credits

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Speech Elective
    - SPCH1311 - Introduction to Speech Communication (3)
    - SPCH1315 - Public Speaking (3)
    - SPCH1318 - Interpersonal Communication (3)
    - SPCH1321 - Business & Professional Communication (3)

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Surg Tech

SRGT1244 - Technological Sciences for the Surgical Technologist
Course Title

Technological Sciences for the Surgical Technologist

Academic Level

Undergraduate

Description

Specialized surgical modalities covered include endoscopy, microsurgery, therapeutic surgical energies, and other integrated science technologies.

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

32

Credits

2

Semester Credit Hours

2

SRGT1405 - Introduction to Surgical Technology
Course Title

Introduction to Surgical Technology

Academic Level

Undergraduate

Description

Orientation to surgical technology theory, surgical pharmacology and anesthesia, technological sciences, and patient care concepts.

Lecture Hours

3

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

112

Credits

4

Semester Credit Hours

4

SRGT1409 - Fundamentals of Perioperative Concepts and Techniques
Course Title

Fundamentals of Perioperative Concepts and Techniques

Academic Level

Undergraduate

Description

In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, wound healing and creation and maintenance of the sterile field.

Lecture Hours

3

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

112

Credits

4

Semester Credit Hours

4

SRGT1441 - Surgical Procedures I
Course Title

Surgical Procedures I

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

SRGT1442 - Surgical Procedures II
Course Title

Surgical Procedures II

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

SRGT1460 - Clinical - Surgical Technology/Technologist
Course Title

Clinical - Surgical Technology/Technologist

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

16

Total Contact Hours

256

Credits

4

Semester Credit Hours

4

SRGT1461 - Clinical - Surgical Technology/Technologist

Course Title

Clinical - Surgical Technology/Technologist

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

24

Total Contact Hours

384

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - SRGT1491 - Special Topics in Surgical/Operating Room Technician (4)

SRGT1491 - Special Topics in Surgical/Operating Room Technician

Course Title

Special Topics in Surgical/Operating Room Technician

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

112

Credits

4

Semester Credit Hours

4

SRGT1541 - Surgical Procedures I

Course Title

Surgical Procedures I

Academic Level

Undergraduate

Description

Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, otorhinolaryngology, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care.

Lecture Hours

3

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

144

Credits

5

Semester Credit Hours

5

SRGT1542 - Surgical Procedures II
Course Title

Surgical Procedures II

Academic Level

Undergraduate

Description

Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the cardiothoracic, peripheral vascular, plastic/reconstructive , ophthalmology, oral/maxillofacial, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care.

Lecture Hours

3

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

144

Credits

5

Semester Credit Hours

5

Prerequisites

- Complete the following:
    - SRGT1541 - Surgical Procedures I (5)

SRGT2130 - Professional Readiness

Course Title

Professional Readiness

Academic Level

Undergraduate

Description

Overview of professional readiness for employment, attaining certification, and maintaining certification status.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Credits

1

Semester Credit Hours

1

SRGT2462 - Clinical - Surgical Technology/Technologist

Course Title

Clinical - Surgical Technology/Technologist

Academic Level

Undergraduate

Description

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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

24

Total Contact Hours

384

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - SRGT1461 - Clinical - Surgical Technology/Technologist (4)

Surveying

SRVY1313 - Plane Surveying
Course Title

Plane Surveying

Academic Level

Undergraduate

Description

An introductory overview of surveying equipment and measurement techniques used in mapping. Emphasis on leveling and traversing.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

SRVY1341 - Land Surveying
Course Title

Land Surveying

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

SRVY2348 - Plane Surveying
Course Title

Plane Surveying

Academic Level

Undergraduate

Description

Surveying instruments, basic measuring procedures, vertical and horizontal control, and traverse closure.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Teacher Education

EDTC1090 - Systematic Curr. & Inst. Dev
Course Title

Systematic Curr. & Inst. Dev

Academic Level

Continuing Education

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

39

Semester Credit Hours

0

EDTC1164 - Practicum (or Field Experience) - Teacher Assistant/Aide
Course Title

Practicum (or Field Experience) - Teacher Assistant/Aide

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

10

Total Contact Hours

160

Credits

1

Semester Credit Hours

1

EDTC1301 - Educational Systems
Course Title

Educational Systems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

EDTC1307 - Introduction to Teaching Reading
Course Title

Introduction to Teaching Reading

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

EDTC1321 - Bilingual Education
Course Title

Bilingual Education

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

EDTC1325 - Multicultural Education

Course Title

Multicultural Education

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

EDTC1341 - Instructional Technology and Computer Applications
Course Title

Instructional Technology and Computer Applications

Academic Level

Undergraduate

Description

Examination of specialized educational technology. Topics include the integration of educational computer terminology, system operations, software, and multimedia in the contemporary classroom environment.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

EDTC1364 - Practicum (or Field Experience) - Teacher Assistant/Aide
Course Title

Practicum (or Field Experience) - Teacher Assistant/Aide

Academic Level

Undergraduate

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

21

Total Contact Hours

336

Credits

3

Semester Credit Hours

3

EDTC1373 - Writing Problems
<u>**Course Title**</u>

Writing Problems

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

48

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

EDTC1374 - Teaching Math & Science in the Elementary School
Course Title

Teaching Math & Science in the Elementary School

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

EDTC1375 - Issues in Special Needs Education
Course Title

Issues in Special Needs Education

Academic Level

Undergraduate

Description

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.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

EDTC2000 - Verbal and Physical Conflict Resolution
Course Title

Verbal and Physical Conflict Resolution

Academic Level

Continuing Education

Description

Intensive training in an identified area(s) to meet continuing education and/or review/update requirements associated with professional licensure or certification. This course was designed to be repeated multiple times to improve student proficiency.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

8

Semester Credit Hours

0

EDTC2305 - Reading Problems
Course Title

Reading Problems

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

EDTC2311 - Instructional Practices and Effective Learning Environments
Course Title

Instructional Practices and Effective Learning Environments

Academic Level

Undergraduate

Description

General principles for selecting developmentally appropriate strategies in core curriculum areas, planning the classroom environment, and instructional accommodations and modifications.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

EDTC2317 - Guiding Student Behavior

<u>Course Title</u>

Guiding Student Behavior

<u>Academic Level</u>

Undergraduate

<u>Description</u>

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.

<u>Lecture Hours</u>

2

<u>Lab Hours</u>

4

<u>Ext. Con. Hrs</u>

0

<u>Total Contact Hours</u>

96

<u>Credits</u>

3

<u>Semester Credit Hours</u>

3

Visual & Performing Art, Animt

ARTV1345 - 3-D Modeling and Rendering I

Course Title

3-D Modeling and Rendering I

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - ARTC1302 - Digital Imaging I (3)

ARTV1351 - Digital Video
Course Title

Digital Video

Academic Level

Undergraduate

Description

Producing and editing video and sound for multimedia or web productions. Emphasizes capture, editing, and outputting of video using a digital video workstation.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ARTV2341 - Advanced Digital Video

Course Title

Advanced Digital Video

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - ARTV1351 - Digital Video (3)

ARTV2345 - 3-D Modeling and Rendering II
Course Title

3-D Modeling and Rendering II

Academic Level

Undergraduate

Description

A studio course focused on advanced 3-D modeling and rendering techniques using industry standard software, modeling techniques, camera settings, lighting, and surfacing to develop detailed environments.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

ARTV2351 - 3-D Animation II
Course Title

3-D Animation II

Academic Level

Undergraduate

Description

Advanced level 3-D course utilizing animation tools and techniques used to develop movement. Emphasis on advanced animation techniques. null APRIL 17 2009 03:17pm Sauceda, Elizabeth null

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

WECM Course

WECM3AEC - Area of Emphasis Course
Course Title

Area of Emphasis Course

Academic Level

Undergraduate

Description

Area of Emphasis WECM 3 Credit Elective

Course Options

- Complete at least 3 credits from the following course set:
  keyboard_arrow_up
  Area of Emphasis
  - EDTC1321 - Bilingual Education (3)
  - EDTC1325 - Multicultural Education (3)
  - CDEC1321 - The Infant and Toddler (3)
  - CDEC1356 - Emergent Literacy for Early Childhood (3)
  - EDTC1373 - Writing Problems (3)
  - EDTC2305 - Reading Problems (3)
  - CDEC2340 - Instructional Techniques for Children with Special Needs (3)
  - EDTC1375 - Issues in Special Needs Education (3)

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

Welder/Welding Technologist

NDTE1310 - Liquid Penetrant/Magnetic Particle Testing

<u>Course Title</u>

Liquid Penetrant/Magnetic Particle Testing

<u>Academic Level</u>

Undergraduate

<u>Description</u>

Identify and select proper materials and equipment to perform a liquid penetrant test of a weldment; interpret the results of a liquid penetrant test to ascertain acceptability of the weldment; demonstrate knowledge of safety precautions relative to fire and toxic hazards; and identify and properly select equipment used in magnetic particle testing. Demonstrate knowledge of the principles of magnetic particle, magnetic fields, current requirements for testing and demagnetization; perform a magnetic particle examination on a weldment, following established procedures; and interpret the results of the above test to ascertain acceptability of the weldment.

<u>Lecture Hours</u>

2

<u>Lab Hours</u>

4

<u>Ext. Con. Hrs</u>

0

<u>Total Contact Hours</u>

96

<u>Credits</u>

3

<u>Semester Credit Hours</u>

3

<u>Prerequisites</u>

- Complete the following:
    - WLDG2413 - Intermediate Welding Using Multiple Processes (4)

NDTE2001 - Advanced Ultrasonics
<u>**Course Title**</u>

Advanced Ultrasonics

<u>**Academic Level**</u>

Continuing Education

<u>**Description**</u>

Designed to strengthen the students' knowledge and skills in ultrasonic testing. Emphasis is on examination of plate and pipe welds, characterization of flaws, immersion testing, written practices, and procedures.

<u>**Lecture Hours**</u>

0

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

0

<u>**Semester Credit Hours**</u>

0

NDTE2311 - Preparation Welding Inspection (2-2-3)
<u>**Course Title**</u>

Preparation Welding Inspection (2-2-3)

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

General principles of welding inspection including welding processes, terms and definitions, welding discontinuities, duties and responsibilities of inspectors, destructive and nondestructive testing, quality assurance/ quality control, welding codes and blueprints, procedures, and case studies. An overview of welding tools and equipment, metallurgy, chemistry, and joint design. '

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

2

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

64

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

Welding

WLDG1004 - Fundamentals of Oxy-Fuel Welding & Cutti
Course Title

Fundamentals of Oxy-Fuel Welding & Cutti

Academic Level

Continuing Education

Description

Oxy-fuel welding and cutting equipment. Includes equipment safety, setup, and maintenance.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

WLDG1007 - Intro Welding Using Multiple Processes
Course Title

Intro Welding Using Multiple Processes

Academic Level

Continuing Education

Description

An overview of the basic welding processes, including oxy-fuel welding and cutting, shielded metal arc (SMAW), gas metal arc (GMAW), and gas tungsten arc welding (GTAW).

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

WLDG1012 - Introduction to Flux Cored Arc Welding

Course Title

Introduction to Flux Cored Arc Welding

Academic Level

Continuing Education

Description

An overview of terminology, safety procedures, and equipment set-up. Practice in performing T-joints, lap joints, and butt joints using self-shielding and dual-shield electrodes.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

WLDG1017 - Introduction to Layout and Fabrication

Course Title

Introduction to Layout and Fabrication

Academic Level

Continuing Education

Description

A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.

Lecture Hours

10

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

160

Semester Credit Hours

0

WLDG1021 - Intro to Welding Fundamentals
Course Title

Intro to Welding Fundamentals

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

WLDG1023 - Welding Safety, Tools, & Equp
Course Title

Welding Safety, Tools, & Equp

Academic Level

Continuing Education

Description

An introduction to welding careers and safety practice, including welding safety; OSHA and the Hazardous Communication Act; Material Safety Data Sheets (MSDS); basic mathematics; measuring systems; shop operations; use and care of precision measuring tools; and the use and care of hand and power tools. Instruction on various types of welding equipment and processes, basic welding gases, fluxes, rods, electrodes, symbols, and blueprints.

Lecture Hours

4

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

72

Semester Credit Hours

0

WLDG1025 - Intro Oxy-Fuel Wldg & Cutting
Course Title

Intro Oxy-Fuel Wldg & Cutting

Academic Level

Continuing Education

Description

An Introduction to Oxy-Fuel Welding and Cutting, Safety, Setup And Maintenance of Oxy-Fuel Welding, and Cutting Equipment and Supplies.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Semester Credit Hours

0

WLDG1028 - Intro to Shielded Arc Welding (smaw)
Course Title

Intro to Shielded Arc Welding (smaw)

Academic Level

Continuing Education

Description

An introduction to 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.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

WLDG1030 - Introduction to Gas Metal Arc Welding (g
Course Title

Introduction to Gas Metal Arc Welding (g

Academic Level

Continuing Education

Description

A study of the principles of gas metal arc welding, setup and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools/equipment. Instruction in various joint designs.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

WLDG1035 - Intro to Pipe Welding
Course Title

Intro to Pipe Welding

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

WLDG1041 - Pipe Welding
Course Title

Pipe Welding

Academic Level

Continuing Education

Description

This course covers pipe welding techniques and applications.

Lecture Hours

0

Lab Hours

5

Ext. Con. Hrs

0

Total Contact Hours

80

Semester Credit Hours

0

WLDG1057 - Intermediate Smaw
Course Title

Intermediate Smaw

Academic Level

Continuing Education

Description

A Study of the Production of Various Fillets and Groove Welds. Preparation of Specimens for Testing in All Test Positions.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Semester Credit Hours

0

WLDG1072 - Welding Internship
Course Title

Welding Internship

Academic Level

Continuing Education

Description

A basic, intermediate, or advanced type of non-health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty or the work supervisor. An internship may be a paid or unpaid learning experience.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

WLDG1091 - Special Topics in Welding
Course Title

Special Topics in Welding

Academic Level

Continuing Education

Lecture Hours

2

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

24

Semester Credit Hours

0

WLDG1313 - Introduction to Blueprint Reading for Welders

<u>**Course Title**</u>

Introduction to Blueprint Reading for Welders

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

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.

<u>**Lecture Hours**</u>

3

<u>**Lab Hours**</u>

0

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

48

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - WLDG1313 - Introduction to Blueprint Reading for Welders (3)

<u>**Corequisites**</u>

- Completed or concurrently enrolled in:
    - WLDG1313 - Introduction to Blueprint Reading for Welders (3)

WLDG1327 - Welding Codes and Standards

Course Title

Welding Codes and Standards

Academic Level

Undergraduate

Description

An in-depth study of welding codes and their development in accordance with structural standards, welding processes, destructive and nondestructive test methods.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - WLDG2413 - Intermediate Welding Using Multiple Processes (4)

WLDG1337 - Introduction to Welding Metallurgy
Course Title

Introduction to Welding Metallurgy

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

WLDG1391 - Special Topics in Welder/Welding Technologist
Course Title

Special Topics in Welder/Welding Technologist

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

WLDG1407 - Introduction to Welding Using Multiple Processes
Course Title

Introduction to Welding Using Multiple Processes

Academic Level

Undergraduate

Description

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).

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

WLDG1412 - Intro to Flux Cored Arc Welding (fcaw)
Course Title

Intro to Flux Cored Arc Welding (fcaw)

Academic Level

Undergraduate

Description

An overview of terminology, safety procedures, and equipment set-up. Practice in performing T-joints, lap joints, and butt joints using Flux Cored Arc Welding(FCAW) equipment.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

WLDG1417 - Introduction to Layout and Fabrication

Course Title

Introduction to Layout and Fabrication

Academic Level

Undergraduate

Description

A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - WLDG1313 - Introduction to Blueprint Reading for Welders (3)

WLDG1428 - Introduction to Shielded Metal Arc Welding (SMAW)

Course Title

Introduction to Shielded Metal Arc Welding (SMAW)

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

WLDG1434 - Introduction to Gas Tungsten Arc (GTAW) Welding
Course Title

Introduction to Gas Tungsten Arc (GTAW) Welding

Academic Level

Undergraduate

Description

Principles of gas tungsten arc welding (GTAW), including setup, GTAW equipment. Instruction in various positions and joint designs.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - WLDG1407 - Introduction to Welding Using Multiple Processes (4)

WLDG1435 - Introduction to Pipe Welding

Course Title

Introduction to Pipe Welding

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - WLDG2435 - Advanced Layout and Fabrication (4)

WLDG1453 - Intermediate Layout & Fabrication
Course Title

Intermediate Layout & Fabrication

Academic Level

Undergraduate

Description

An intermediate course in layout and fabrication. Includes design and production of shop layout and fabrication. Emphasis placed on symbols, blueprints, and written specifications

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

WLDG1457 - Intermediate Shielded Metal Arc Welding (SMAW)
Course Title

Intermediate Shielded Metal Arc Welding (SMAW)

Academic Level

Undergraduate

Description

A study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - WLDG1428 - Introduction to Shielded Metal Arc Welding (SMAW) (4)

WLDG2032 - Welding Automation
Course Title

Welding Automation

Academic Level

Continuing Education

Description

Overview of automated welding and cutting applications. Special emphasis on safe use and operation of equipment.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

WLDG2043 - Advanced Smaw
Course Title

Advanced Smaw

Academic Level

Continuing Education

Description

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.

Lecture Hours

1

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

16

Semester Credit Hours

0

WLDG2047 - Advanced Gas Metal Arc Welding (gmaw)
Course Title

Advanced Gas Metal Arc Welding (gmaw)

Academic Level

Continuing Education

Description

Advanced topics in Gas Metal Arc Welding (GMAW). Includes welding in various positions.

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

100

Semester Credit Hours

0

WLDG2051 - Adv Gas Tungsten Arc Welding
Course Title

Adv Gas Tungsten Arc Welding

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

WLDG2052 - Advanced Flux Cored Arc Welding
Course Title

Advanced Flux Cored Arc Welding

Academic Level

Continuing Education

Description

Advanced concepts of flux cored arc welding of structural and fabricated steel products. Skill development in multi-pass fillet and v-groove welding.

Lecture Hours

6

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

100

Semester Credit Hours

0

WLDG2331 - Adv Blueprint Interpretation & Cost Anal Cost Analysis
Course Title

Adv Blueprint Interpretation & Cost Anal Cost Analysis

Academic Level

Undergraduate

Description

A continuation of the Blueprint for Welders course. Emphasis placed on inspection, cost analysis, and estimating.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

WLDG2355 - Advanced Metallurgy
Course Title

Advanced Metallurgy

Academic Level

Undergraduate

Description

Advanced study of metallurgy as it applies to welding. Includes structure, identification, and testing of metals. Also covers temperature changes and their effect on welded metals, properties of metals, and factors affecting weldability of ferrous and nonferrous metals.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

WLDG2406 - Intermediate Pipe Welding

Course Title

Intermediate Pipe Welding

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - WLDG2435 - Advanced Layout and Fabrication (4)

WLDG2413 - Intermediate Welding Using Multiple Processes

Course Title

Intermediate Welding Using Multiple Processes

Academic Level

Undergraduate

Description

Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: Oxy-fuel gas cutting and welding, shield, metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW), or any other approved welding process.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - WLDG1407 - Introduction to Welding Using Multiple Processes (4)

WLDG2432 - Welding Automation

Course Title

Welding Automation

Academic Level

Undergraduate

Description

Overview of automated welding and cutting applications. Special emphasis on safe use and operation of equipment

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - WLDG2413 - Intermediate Welding Using Multiple Processes (4)

WLDG2435 - Advanced Layout and Fabrication
<u>**Course Title**</u>

Advanced Layout and Fabrication

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

An advanced course in layout and fabrication. Includes production and fabrication of layout, tools, and processes. Emphasis on application of fabrication and layout skills.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

6

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

128

<u>**Credits**</u>

4

<u>**Semester Credit Hours**</u>

4

<u>**Prerequisites**</u>

- Complete the following:
    - WLDG1417 - Introduction to Layout and Fabrication (4)

WLDG2443 - Advanced Shielded Metal Arc Welding (SMAW)
<u>Course Title</u>

Advanced Shielded Metal Arc Welding (SMAW)

<u>Academic Level</u>

Undergraduate

<u>Description</u>

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.

<u>Lecture Hours</u>

2

<u>Lab Hours</u>

6

<u>Ext. Con. Hrs</u>

0

<u>Total Contact Hours</u>

128

<u>Credits</u>

4

<u>Semester Credit Hours</u>

4

<u>Prerequisites</u>

- Complete the following:
  - WLDG1457 - Intermediate Shielded Metal Arc Welding (SMAW) (4)

WLDG2447 - Advanced Gas Metal Arc Welding (gmaw)
Course Title

Advanced Gas Metal Arc Welding (gmaw)

Academic Level

Undergraduate

Description

Advanced topics in Gas Metal Arc Welding (GMAW). Includes welding in various positions.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
  - WLDG2413 - Intermediate Welding Using Multiple Processes (4)

WLDG2451 - Advanced Gas Tungsten Arc Welding (gtaw)
Course Title

Advanced Gas Tungsten Arc Welding (gtaw)

Academic Level

Undergraduate

Description

Advanced Topics in GTAW welding, including positions and directions.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - WLDG2413 - Intermediate Welding Using Multiple Processes (4)

WLDG2452 - Advanced Flux Cored Arc Welding

Course Title

Advanced Flux Cored Arc Welding

Academic Level

Undergraduate

Description

Advanced concepts of flux cored arc welding of structural and fabricated steel products. Skill development of multi-pass fillet and v-groove welding.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - WLDG2413 - Intermediate Welding Using Multiple Processes (4)

WLDG2453 - Advanced Pipe Welding

Course Title

Advanced Pipe Welding

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

6

Ext. Con. Hrs

0

Total Contact Hours

128

Credits

4

Semester Credit Hours

4

Prerequisites

- Complete the following:
    - WLDG2435 - Advanced Layout and Fabrication (4)

Wind Energy & Turbine Tech

WIND1000 - Introduction to Wind Energy
Course Title

Introduction to Wind Energy

Academic Level

Continuing Education

Description

Introduction of the evolution of wind technology, wind farm design, and characteristics of energy sources.

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

WIND1002 - Wind Safety
Course Title

Wind Safety

Academic Level

Continuing Education

Description

Introduction to safety procedures and practices relating to turbine towers. Includes first aid training and CPR certifications.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Semester Credit Hours

0

WIND1300 - Introduction to Wind Energy
Course Title

Introduction to Wind Energy

Academic Level

Undergraduate

Description

Introduction of wind technology, wind farm design, and wind power delivery.

Lecture Hours

3

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

48

Credits

3

Semester Credit Hours

3

WIND1302 - Wind Safety
Course Title

Wind Safety

Academic Level

Undergraduate

Description

Introduction to safety procedures and practices relating to turbine towers. Includes first aid training and CPR certifications.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

WIND1371 - Safety At Height Training

Course Title

Safety At Height Training

Academic Level

Undergraduate

Description

Develop basic safety at height skills, gain knowledge of how to react to dangerous situations in the turbine, and learn emergency evacuation skills.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - CETT1325 - Digital Fundamentals (3)

WIND1391 - Special Topics in Wind Energy
Course Title

Special Topics in Wind Energy

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

3

Semester Credit Hours

3

WIND1491 - Special Topics in Wind Energy
Course Title

Special Topics in Wind Energy

Academic Level

Undergraduate

Description

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.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

WIND2010 - Turbine Specific/Duke Energy Tech. Train
Course Title

Turbine Specific/Duke Energy Tech. Train

Academic Level

Continuing Education

Lecture Hours

0

Lab Hours

0

Ext. Con. Hrs

0

Total Contact Hours

0

Semester Credit Hours

0

WIND2310 - Wind Turbine Materials and Electro-Mechanical Equipment

Course Title

Wind Turbine Materials and Electro-Mechanical Equipment

Academic Level

Undergraduate

Description

Identification and analysis of the components and systems of wind turbine.

Lecture Hours

2

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

64

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
    - WIND1300 - Introduction to Wind Energy (3)
    - WIND1302 - Wind Safety (3)
    - CETT1303 - DC Circuits (3)

WIND2355 - Wind Turbine Troubleshooting and Repair
<u>**Course Title**</u>

Wind Turbine Troubleshooting and Repair

<u>**Academic Level**</u>

Undergraduate

<u>**Description**</u>

Operation, maintenance, troubleshooting, and repair of wind turbine electro-mechanical systems.

<u>**Lecture Hours**</u>

2

<u>**Lab Hours**</u>

4

<u>**Ext. Con. Hrs**</u>

0

<u>**Total Contact Hours**</u>

96

<u>**Credits**</u>

3

<u>**Semester Credit Hours**</u>

3

<u>**Prerequisites**</u>

- Complete the following:
    - CETT1305 - AC Circuits (3)
    - INMT1317 - Industrial Automation (3)

WIND2359 - Wind Power Delivery System

Course Title

Wind Power Delivery System

Academic Level

Undergraduate

Description

Components, equipment, and infrastructure used in the production and transmission of electricity as related to wind turbine power.

Lecture Hours

2

Lab Hours

3

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

3

Semester Credit Hours

3

Prerequisites

- Complete the following:
  - CETT1305 - AC Circuits (3)

WIND2455 - Wind Turbine Troubleshooting and Repair
Course Title

Wind Turbine Troubleshooting and Repair

Academic Level

Undergraduate

Description

Operation, maintenance, troubleshooting, and repair of wind turbine electro-mechanical systems.

Lecture Hours

2

Lab Hours

4

Ext. Con. Hrs

0

Total Contact Hours

96

Credits

4

Semester Credit Hours

4

WIND2459 - Wind Power Delivery System
Course Title

Wind Power Delivery System

Academic Level

Undergraduate

Description

Components, equipment, and infrastructure used in the production and transmission of electricity as related to wind turbine power.

Lecture Hours

3

Lab Hours

2

Ext. Con. Hrs

0

Total Contact Hours

80

Credits

4

Semester Credit Hours

4