COLLEGE CATALOG

Western Tech

MAIN CAMPUS
9624 Plaza Circle • El Paso, Texas 79927
915.532.3737 Phone
800.225.5984 Toll Free
915.532.6946 Fax

BRANCH CAMPUS
9451 Diana • El Paso, Texas 79924
915.566.9621 Phone
800.522.2072 Toll Free
915.565.9903 Fax

westerntech.edu

WESTERN TECHNICAL COLLEGE LOCATIONS

BRANCH CAMPUS
9451 Diana Drive
El Paso, TX 79924
(915) 566-9621 • 1-800-522-2072

MAIN CAMPUS
9624 Plaza Circle
El Paso, TX 79927
(915) 532-3737 • 1-800-225-5984

WELCOME—BIENVENIDOS
The students, staff, and faculty welcome you to
Western Technical College
Our Mission

The mission of WTC College is to: Provide quality training and education in a caring, professional environment that prepares new students and working adults with the skills they need to succeed and advance in their chosen careers.

ADMINISTRATIVE STAFF AND DEPARTMENT DIRECTORS

Randy Kuykendall	Chair, College Board
Bill Terrell	Vice-Chair, College Board
Brad Kuykendall	Chief Executive Officer
Mary Cano	Chief Operating Officer
Dr. Maxine Valencia	Campus President, Main Campus
Margie Aguilar	Campus President, Branch Campus
Laura Plummer	Controller
Martha Molinar	Director, Human Resource
Jack Werner	Vice President, Strategic Partners, and Employment
Jessie Kelley	Director, Career Services
Samuel Groover	Director, Customized Training
Marco Martinez	Director, Admissions/Field Admissions
Lynda Cervantes	Director, Marketing
Robert Hinojos	Manager, Information Technology
Javier Zavala	Academic Dean
Romeline Obonan, EdD	Administrator, Distance Education
Richard Morris	Program Director, Advanced Welding Program
Phil Giner	Program Director, Automotive & Heavy-Duty Trucks
Guadalupe Gonzalez	Program Director, Commercial Driver Training
Darius Davis	Program Director, Business Programs (MBA, BBA & BSTM)
Patricia Herbias, DNP	Dean of Nursing
Orlando Beltran	Program Director, Aerospace and Defense Technology & Electronics Engineering Technology
Erika Loya	Program Director, Computer Science & Computer Support Specialist
Roberta Pell	Program Director, Medical Billing and Coding
Amanda Avila	Program Director, Medical Clinical Assistant
Suzanne Nolan	Program Director, Physical Therapist Assistant
Harry Gruber	Program Director, Refrigeration/HVAC Technology
Ana Reza	Coordinator, General Education
Adam Amaya	Coordinator, Applied General Education and Career Development

TABLE OF CONTENTS

Program Offerings

Certificate Programs

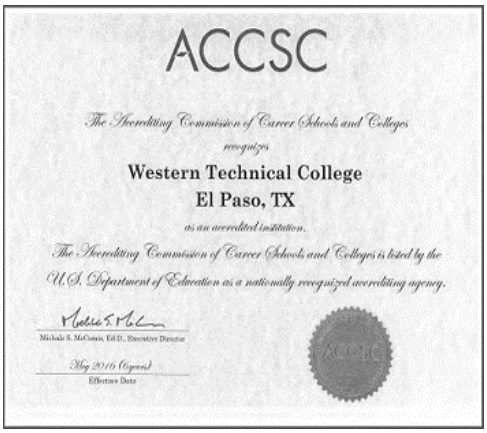
Associate of Occupational Studies Degrees

Associate of Applied Science Degrees

Bachelor Degrees

Master Degree

ACCREDITATION/APPROVALS



(The original accreditation and licensure documents are displayed at each campus)

Accreditation

Western Technical College is accredited by the Accrediting Commission of Career Schools and Colleges (ACCSC) which is listed by the U.S. Department of Education (USDOE) as a nationally recognized accrediting agency.

Approvals

Western Technical College is approved and regulated by the Texas Workforce Commission (TWC) Career Schools and Colleges Section, Austin, Texas. WTC's degree-granting programs are approved and regulated by the Texas Higher Education Coordinating Board (THECB). WTC's Nursing Program is regulated by the Texas Board of Nursing. The Physical Therapist Assistant program is programmatically accredited by the Commission on Accreditation in Physical Therapy education. The Medical Clinical Assistant program is programmatically Accredited by the Commission on Accreditation of Allied Health Education. The college's programs are approved to train veterans by the Texas Workforce Commission and the Texas Veterans Commission. Training of foreign students is approved by the U.S. Department of Immigration and Naturalization (INS).

WTC Website Address: www.westerntech.edu

Western Technical College 9624 Plaza Circle El Paso, Texas 79927 (915)532-3737 (915)532-6946 (fax)	Western Technical College 9451 Diana Drive El Paso, Texas 79924 (915)566-9621 (915)565-9903 (fax)

HOURS OF OPERATION

School Operations 7:00 am-10:00 pm
Office Hours: 8:00 am-8:00 pm, Monday through Thursday
Office Hours: Friday, 8:00 am – 4:30 pm

I certify that the information presented in this catalog is correct and true to the best of my knowledge and belief. The contents of this catalog are subject to change without notice.

Brad Kuykendall

Brad Kuykendall
CEO
Catalog Volume 1006
Effective April 2023-January 2024

HISTORY

Western Technical College (WTC) began operating as El Paso Trade School on January 1, 1970, and since that time has expanded both in size and enrollment. January 1, 2020, marked WTC's 50 years in business. It began with a basic welding curriculum, and new programs have been added periodically. Refrigeration and Air Conditioning was added in 1971, and in 1975, Automotive Mechanics was added.

In January of 1979, El Paso Trade School became accredited by the National Association of Trade and Technical Schools (NATTS), now known as the Accrediting Commission of Career Schools and Colleges (ACCSC). In 1980, the school expanded by adding a branch campus and the following programs: 1980, Electronics; 1983, Microcomputer Technology; 1984, Medical Assisting (name change to Medical Clinical Assistant 2014); 1985, AOS degree in Automotive Technology and AOS degree in Refrigeration/HVAC Technology; 1994, Health Information Technology (name change 2013 to Medical Billing and Coding). In June 1986, the school underwent a name change. Because the 1970 name no longer accurately reflected the "high tech" courses taught at the school, the name was changed to Western Technical Institute (WTI). The branch campus moved to a more modern facility in 2001. The Microcomputer Technology program was split to into two tracks: Electronics Engineering Technology and Information Systems and Security (AOS degrees converted to AAS degrees in 2009). In 2001, Massage Therapy became an offering (discontinued in 2004; reactivated in 2006 and discontinued again in 2020), and in 2007, WTC offered its first AAS degree in Physical Therapist Assistant. In 2015, WTC began offering an AAS in Business Administration and Management (discontinued in 2019), and in 2017, the school offered its first baccalaureate degree program, a BBA degree.

Upon advice from employer advisory boards, the courses and programs at WTC are constantly updated to conform to industry needs. As a result of the changes to the programs and locations, in March 2005, the school underwent another name change. The name Western Technical College better reflects the careers and degrees offered by the school. The main campus relocated into a spacious 150,000 square foot facility in late 2005 and was approved to offer the following certificate programs: Performance Tuner (PT); Diesel Mechanics (converted to an AOS degree in 2008); and Pipe Welding (Combined with Structural Welding in 2010 to become the current Advanced Welding Technology program). In 2014, WTC began two tracks for Automotive Technology, one in Light Duty Diesel (LDD) and the other in Performance Tuner, and the certificate programs in these areas were taught out.

In December 2014, WTC was approved to begin offering distance education at the branch campus. The launch occurred February 9, 2015, and other program offerings followed.

YEAR	PROGRAM	% ONLINE
2015	Medical Billing and Coding-Certificate	20%
2015	General Education Courses	50%
2016	Medical Clinical Assistant-Certificate	20% (Taught Out)
2017	AAS in Business Administration	20% (Taught Out)
2017	Bachelor of Business Administration	50%
2017	AAS in Electronics Engineering Technology	Up to 50%
2017	AAS in Information Systems and Security	Up to 50%
2017	Medical Billing and Coding-Certificate	Up to 50%
2019	AAS in Aerospace and Defense Technology	Up to 50%
2020	Master of Business Administration	100%
2020	Medical Billing and Coding-Certificate	100%
2020	AAS in Information Systems and Security	Up to 100%
2020	General Education Courses	Up to 100%
2020	Bachelor of Business Administration	100%
2021	Bachelor of Science in Technical Management	100%

In April 2017, WTC's main campus was approved to begin offering distance education in a hybrid platform.

YEAR	PROGRAM	% ONLINE
2016	Medical Clinical Assistant-Certificate	20%
2017	AAS in Business Administration	20% (Taught Out)
2017	AOS in Automotive Technology	20%
2017	AOS in Automotive Technology w/Sub-Specialty in LDD	20% (Taught Out)
2017	AOS in Automotive Technology w/Sub-Specialty in PT	20% (Taught Out)
2017	Bachelor of Business Administration	50%
2017	AOS in Diesel Mechanics	20%
2019	AOS in Refrigeration and HVAC Technology	20%
2019	Diesel Advanced Technology Education (DATE)-Certificate	20%
2021	Advanced Welding Technology-Certificate	20%
2021	Commercial Driver Training-Certificate	20%

In January 2018, the main campus was approved to begin offering the Commercial Driver Training Program (CDT). In March 2019, the Bachelor of Science in Nursing (BSN) was approved at the branch campus only. In April 2019, the Diesel Advanced Technology Education (DATE) certificate program was approved at the main campus only. In May 2019, the Medical Clinical Assistant (MCA) program became programmatically accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and was discontinued at the branch campus. In November 2019, the Aerospace and Defense Technology (ADT) program was approved at the branch campus only. In May 2020, WTC was approved to offer a Master of Business Administration (MBA). It was the first approved program to be offered fully online. In June 2021, the Bachelor of Science in Technical Management (BSTM) program was approved at the branch campus only. In October 2021, the FCA MOPAR Automotive Certificate program was approved for the main campus only. The Computer Support Specialist was approved in 2023 and is taught at the Branch Campus only. Western Technical College has partnered up with Ft. Bliss to assist transitioning soldiers out of the military to provide the opportunity for the soldiers to obtain skills needed to work in the technology field.

FACILITIES

WTC occupies two modern campuses designed to enhance learning and provide students a real-world entry-level experience prior to employment. Each campus houses different programs. WTC offers wireless network services throughout each campus so that all students, faculty, staff, and guests of the college can utilize the wireless network.

The Plaza Circle location (main campus) is housed in a 150,000 square foot facility on 13 acres, including spacious indoor and outdoor student break areas. The facility comfortably accommodates classrooms and shops for the following programs: Automotive Technology, Diesel Mechanics, Diesel Advanced Technology Education, Commercial Driver Training, Refrigeration/HVAC Technology, Advanced Welding Technology, Medical Clinical Assistant, FCA MOPAR, and the Bachelor of Business Administration. The main campus features a spacious Learning Resource Center (LRC) with 16 computer stations and a Pearson Testing Center. There is a restaurant and a MATCO Tool store as well. The campus has a total of 40 classrooms, to include six lab areas for the transportation, welding, HVAC, and medical programs. The classrooms can accommodate a maximum of 30 students.

The Diana location (branch campus) is housed in a 48,000 square foot building on five acres with an additional 2,000 square feet outside the student break area. This campus features program offerings that include a Master of Business Administration (MBA); Bachelor of Business Administration (BBA); Bachelor of Science in Nursing (BSN); Bachelor of Science in Technical Management (BSTM); and AAS degrees in Information Systems and Security, Aerospace and Defense Technology, Electronics Engineering Technology, and Physical Therapist Assistant. A Certificate of Completion is offered in Medical Billing and Coding. The campus has a total of 25 classrooms and seven labs. This campus a has a spacious library with 15 computers for student use, printing capabilities, and a Pearson Testing Center.

In February 2019 WTC received approval for a satellite campus (SL460566) that is located 3.75 miles from the main campus and serves as a driving range for the Commercial Driver Training program (CDT) and the Commercial Driver's License (CDL) for the Diesel Mechanics program. It has a break area and restroom facilities. The satellite campus is located at 11090 Gateway Blvd. East, El Paso, Texas 79927.

EQUIPMENT USED FOR TRAINING

(A more detailed list of equipment used in every program is available online at www.westerntech.edu)

ADVANCED WELDING
Lincoln Electric prism exhaust system
Lincoln Electric V-275 welding machine
Miller Dynasty 200 inverter welding machine
Hypertherm plasma cutter
Miller Bobcat 225 engine driven welding machine
Victor track torches

AEROSPACE AND DEFENSE TECHNOLOGY
Multimeters
Oscilloscopes
Electronic circuit trainers
Avionic systems testers
Time domain reflectometers
Altitude/airspeed testers
Wire harness trainers
Communication trainers
Hydraulic pressure testers

AUTOMOTIVE TECHNOLOGY
ProCut on the car brake lathe
Hunter-Hawkeye Elite alignment system
Launch fuel injector flow tester
Mopar WiTech diagnostic scan system
Matco R134 AC recovery and recharge machine
Mustang AWD-500 dynamometer
MegaTech electrical and hybrid trainers
Mopar training vehicles
Hunter Road force balancing system
Programmable tuning engines

BACHELOR OF SCIENCE IN NURSING
Hospital beds
Patient simulation mannequins
Blood pressure monitors
Incubators
Autoclaves
Microscope

COMMERCIAL DRIVER TRAINING
2011 International Prostar semi tractors
2014 International Prostar semi tractors
53' tractor trailers
Drum brake system training aid
Disc brake system training aid
Truck and trailer air brake system trainer

DIESEL MECHANICS AND DIESEL ADVANCED TECHNOLOGY EDUCATION
Volvo truck trainers
Freightliner truck trainers
Hydraulic fluid power simulators
MegTech electrical trainer
Volvo diagnostic scan system
Daimler diagnostic scan system
Hunter HD alignment system
Hunter HD wheel balancer
Electrical chassis trainer
AC system simulator
Matco R134 AC recovery and recharge machine

ELECTRONIC ENGINEERING TECHNOLOGY
Oscilloscopes
Multimeters
Electronic circuit trainers
Programmable logic controllers
Robotic arms
Pneumatic trainers

COMPUTER SCIENCE
Computer desktop parts (motherboard, CPU, memory sticks, video cards, hard drive SSDs, Power Supplies)
Cisco Packet Tracer 8.2
Various Cisco routers, Cisco switches, and Cisco wireless router
Microsoft Windows server and client operating systems
Various open-source Linux operating systems
Virtual Box, Hyper-V and VMware for the Palo Alto Academy platform

PHYSICAL THERAPIST ASSISTANT
Suspension gait system
Open gym area with squat rack
Mechanical traction units
Multiple selection of electrical stimulation and ultrasound units

MEDICAL CLINICAL ASSISTANT
Hemodialysis machines

Centrifuge machines
EKG machines
Cholesterol analyzer
Microhematocrit machines

REFRIGERATION/HVAC TECHNOLOGY
Residential split systems
Light commercial package units
Ductless mini-split systems
Chilled water system
Commercial package units
Electrical training stations
Ice machines (cube, nugget, flaker)
Building automation/energy management trainers
Heat pumps

Medical Billing and Coding, Bachelor of Science in Technical Management, Bachelor of Business Administration, and Master of Business Administration Fully online programs do not require specific equipment for training.

ADMISSIONS

Admission Standards

The applicant understands that they must satisfy any specific admission requirements for the programs that are described in the school's catalog, and that they will not be fully admitted to Western Tech until all admission requirements have been fulfilled to Western Tech's satisfaction. The applicant specifically affirms that they have earned a high school diploma, General Equivalency Diploma, or the equivalent, and authorizes Western Tech to verify that. The applicant acknowledges and agrees that they must comply with all admissions requirements and submit all proper documentation in the time allotted by Western Tech and that a failure to meet any admission requirement or failure to submit any documentation may result in denial of acceptance into the chosen program.

Admission Procedures

Individuals who seek admission to WTC are interviewed by an Admissions Representative. The pre-admission interview is designed to determine whether the applicant has a reasonable chance to successfully complete the chosen program of study. The purpose of the interview is to accomplish the following:

1. Assist prospective students in identifying the appropriate area of study
2. Provide information concerning curriculum offerings
3. Discuss support services available at WTC
4. Tour the facility

Prospective students will tour the campus as part of the enrollment process, and they will complete the necessary forms and documents prescribed by the college and its regulating and accrediting bodies. Arrangements for an interview and tour of WTC may be made by contacting the Admissions Department.

Prospective students interested in fully online programs will be provided a virtual tour of the campus as part of the enrollment process, and they will complete the necessary forms and documents prescribed by the college and its regulating and accrediting bodies. Prospective students will be allowed to enroll up until the second day of the scheduled class start.

WTC has a high school recruiting team whose members reside in the following states; however, they recruit and enroll solely for Western Technical College in El Paso, Texas.

1. Arizona
2. California
3. New Mexico
4. Utah
5. Texas

Statement of Non-Discrimination

No person shall be excluded from participation, denied any benefits, or subjected to any form of discrimination based on race, sex, religion, color, national origin, age, disability, military or veteran status, gender identity, or any other factor protected by law.

Western Tech does not discriminate in admission or access to programs based on any characteristic protected by law, including disabilities. Persons with disabilities are eligible for admission if they can carry out classroom, laboratory, and internship assignments; pass written, oral, and practical examinations; and meet all the requirements of the program and generally accepted requirements of the profession. with or without reasonable accommodation. Western Tech will make reasonable accommodations for disabilities. Applicants who require accommodations are required to submit a written request to the Campus President. Technical Standards and Essential Functions are listed in every program section in this catalog

Admission Requirements

To be eligible for any program offered by WTC, a prospective student must present a high school diploma, high school transcript, or equivalency certificate (GED) recognized by the United States Department of Education. The admissions representative will make a copy to keep on file. In the event the applicant is unable to produce a copy, WTC will submit a transcript request on behalf of the applicant to their previous school at no cost to the applicant, or the applicant can submit their own request. The applicant may not enroll unless they produce a high school diploma, a high school or other transcript, or GED certificate.

Classes are taught in English; therefore, an adequate level of proficiency in reading, writing, and speaking the English language is required. Prospective international students are required to take the Test of Adult Basic Education (TABE) and must achieve a minimum of a sixth-grade level in all areas of reading, comprehension, and math. All applicants must be at least 18 years of age or older; however, applicants who have already earned their high school diploma, GED, or high school equivalency may enroll if they have met their state's compulsory age requirements or have exemptions.

For Prospects Unable to Produce a High School Diploma or GED

In the event the prospective student experiences a problem acquiring their high school diploma or GED, WTC will make allowances provided that one of the following criteria is met:

1. The prospective student is required to produce a transcript from the post-secondary institution attended. The college or vocational training institution must be recognized by the U.S. Department of Education and must be an accredited institution. If the prospective student did not complete the program, they would be required to possess a minimum of (24) semester credit hours or equivalent of post-secondary training at a national or regionally accredited institution. The individual is required to submit transcripts with a minimum 2.0 cumulative grade point average. This does not apply to military Joint Services Transcripts (JST) from any military branch. Transcripts for high school equivalency are not required to be official.
2. The prospective student can produce an official military service DD214, and high school seniors can submit their most current partial transcript that indicates their expected graduation date.
3. For applicants who were home schooled, may be eligible for enrollment, provided their transcript meets equivalency standards with state requirements. Given that homeschool requirements and regulations vary by state, WTC requires the applicant provide a homeschool transcript (course dates, titles, a course grade or performance assessment for each course, period of enrollment with graduation date or expected graduation date); and documentation indicating that the schooling followed state regulations.

Fully Online and Hybrid Delivery

Hybrid and fully online courses are web-based and delivered over the Internet using Canvas, WTC's Learning Management System (LMS). The system provides both synchronous and asynchronous tools used for online delivery. The online content of the course is covered by using a variety of educational activities such as discussion boards, chat sessions, conference sessions, case studies, lab simulations, and quizzes. In a hybrid program, the face-to-face schedule is set on specific dates and times of the week while the online portion of the class is organized for the student to have the flexibility to complete the online classroom activities based on their personal/work schedules.

Regardless of the mode of delivery, students using fully online, or hybrid delivery can expect the same level of support as on-ground students have, to include tutoring services, technical support, employment preparation, assistance with job leads, and access to the school's library.

Participation in online classes is vital to successful program completion. Students are provided with a computer that meets the requirements of the hybrid and fully online programs. Students must have Internet access from somewhere outside the school to fulfill course requirements and succeed in their classes. In addition, students must have a minimum level of comfort with technology, as they may find a need to access course work online for as much as half of the time the class is in session.

For that reason, all prospective students considering enrollment in any of the hybrid and fully online programs are required to take a "Suitability for Distance Education" survey before they enroll in school. The survey is designed to identify the prospective student's level of proficiency in the use of technology. Students can expect support in the form of training tailored to their identified needs so that they can handle the demands of the Learning Management System that houses much of their work.

Certificate and Degrees

WTC offers Associate and Baccalaureate degrees. The applied associate degree (AAS) is an academic degree; the primary focus of the other degree (AOS) is to prepare students with practical knowledge so that they are ready to enter their chosen fields. The certificate programs are non-term programs that do not result in a degree but a Certificate of Completion. The graduate degree leads to a master's degree.

INTERNATIONAL STUDENTS

WTC is dedicated to serving the needs of the international student from the admission application process through transfer or graduation. Staff members are available to help students remain in compliance with Department of Homeland Security requirements while attending WTC. For the convenience of students, designated advisers are available.

How to Obtain a SEVIS I-20 Form

International students wishing to live in the United States while attending college must be admitted as full-time international students and maintain a full-time course load to stay in compliance with F-1/M-1 Visa requirements. Applicants seeking to enroll in valid student non-immigrant status must submit each of the following items:

1. A completed application for admissions.
2. A completed and signed enrollment agreement.
3. Original or official copies of educational transcripts (secondary school and, if applicable, university-level academic records) and diplomas. These educational transcripts and diplomas must be prepared in English or include a complete and official English translation. WTC will perform this function on behalf of the student who will assume the cost for the translation. The translation is generally completed within five to seven school days.
4. Transcripts from Puerto Rico are accepted.
5. Official evaluation of non-American educational credentials. The official transcript is translated by an approved independent third party.
6. Proof of English language proficiency. A TABE test will be administered and must meet a minimum of fifth grade level reading.
7. A completed and signed Sponsor's Statement of Financial Support (This statement is not required if the student is self-sponsored.).
8. Official financial statements (typically provided by a bank) must verify sufficient funds to cover the cost of the educational program as well as living expenses.
9. A photocopy of the student's passport to provide proof of birth date and citizenship (Students outside the United States who have not yet acquired a passport will need to submit a copy of their birth certificate.).
10. Non-immigrant applicants residing in the United States at the time of application will be required to provide a photocopy of the visa page contained within the student's passport as well as a photocopy of the student's I/94 arrival departure record (both sides).
11. For all non-immigrant applicants residing in the United States at the time of application in F, M, or J nonimmigrant classification: written confirmation of nonimmigrant status at previous school attended before transferring to WTC.

Issuance of the I-20 Form General Information

The I-20 form is issued in compliance with The Department of Homeland Security rules and the General Issuance Guidelines:

1. I-20 will be issued no earlier than 60 calendar days prior to first day of the program start for which the prospective student applied.
2. I-20 will generally be issued no later than 30 days prior to the first day of the program start for which the prospective student applied.

Sevis I-20/M-1 Visa Requirements

After receiving the SEVIS, I-20 form, and F-1/M-1 Visa, the candidate must comply with the following requirements:

1. Report to WTC's Student Financial Services Office within 10 days of entering the United States for the first time on the F-1/M-1 Visa.
2. Report changes to address and telephone number(s) to the Student Financial Services Office within (10) days. Report to the International Students Office to report any schedule changes that might result in an out-of-status condition, e.g., withdrawing from a class causing less than full-time attendance.
3. To extend an I-20 Form, report to the Student Financial Services Office for an extension four weeks prior to the expiration date. If the I-20 is not extended or renewed prior to the expiration date, it will be terminated, and the individual will not be allowed to continue to study after the expiration date and must leave the United States and re-apply for a new I-20 and a new F-1/M-1 Visa.

The student must contact the Student Financial Services Office immediately if they plan to transfer to another college or university. Another school will not be able to issue an I-20 unless WTC first releases the SEVIS record.

TRANSFER CREDITS

Transfer credit for previous education, training, military, or work experience must be evaluated by the Campus President and acceptability determined prior to an applicant's being accepted and starting school.

1. **S**tudents are eligible to receive course exemptions for general education courses completed over the last ten (10) years, with an earned grade of "B" or higher.
2. Applied General Education course exemptions can be considered only for AOS degree programs.
3. Students who took technical courses over the last five (5) years may be entitled to course exemptions provided they earned a "B" or higher. For military personnel, WTC will consider granting credit only for coursework, certifications earned, or military or work experience that has occurred within the last five years. (Except for PTA and BSN).
4. Effective January 1, 2019, alumni who wish to take an entire program different from the one from which they graduated from may do so for up to 50% off tuition for ONE PROGRAM ONLY. Alumni who enroll in a subsequent program must be in good standing with WTC, to include zero conduct issues with their previous program and good standing with their student loans and student accounts. Detailed information on the alumni discount is found in the Financial Aid section of this catalog.
5. The acceptance of transfer credit for technical courses is primarily based on the competencies achieved by the applicant in previously completed coursework, training, or employment and whether the competencies reasonably align with the WTC coursework and program into which the credit is to be transferred. In addition to transcripts, applicants may be required to provide course descriptions from the school where the coursework was performed to enable WTC to perform a course-by- course evaluation.
6. WTC may require applicants requesting transfer credit to take oral, written, or performance exams or a combination thereof. Applicants must achieve a minimum score of 75% on the exam(s) for course exemption.
7. WTC does not accept credits listed as "transfer" credits on transcripts from other institutions. Original transcripts are required for coursework from all institutions previously attended.
8. If the institution which the applicant previously attended is located within the United States, it must be accredited by an accrediting agency recognized by the United States Department of Education. Transcripts in Spanish from Puerto Rico or other United States territories are acceptable. If the institution is outside the

United States, it must be accredited or similarly acknowledged by an agency deemed acceptable at WTC's discretion. At the applicant's expense, WTC may also require evaluation of foreign transcripts to determine high school equivalency of credentials by an independent third party.

9. Students receiving course exemption(s) are not eligible to receive Title IV or VA funding for any coursework for which the student already received credit.
10. A minimum of 50% of credits earned for graduation must be earned at WTC.

High School Credit

A high school graduate may be eligible for credit from previous training in high school up to one year of graduating. The student must receive an 80% or higher on the articulated course(s) for credit purposes, and they must be upper division courses. The credit may result as a course exemption or a reduction in the cost of the course. The final determination is made by the Program Director and Campus President.

Evaluation of Transfer Credit for Veterans for Previous Military Experience and Education

Western Technical College strives to accelerate veterans' entry into the workforce. For this reason, skills obtained through military experience, education, and training are considered for the awarding of credit.

Veterans will be required to present the following:

1. Joint Services Transcript (JST). (WTC's VA Certifying Official can also order a JST transcript on behalf of the veteran.)
2. DD214
3. Any post-secondary transcripts from previous education training and/or education

WTC will consider granting credit for coursework, certifications, and military or work experience only for those activities that have has occurred within the last 10 years. The school may require applicants requesting transfer credit to take oral, written, or performance exams or a combination thereof, and applicants must achieve a minimum score of 75% on the exam(s) for course exemption.

Other tools at the school's disposal are the Classification of Instructional Programs (CIP) codes and the military occupations codes (MOC). Matching codes may result in an award of course credits that align with the program of interest.

Veteran applicants who receive credit are not eligible to receive Title IV student financial assistance or Veterans Administration (VA) funding for any coursework for which credit was granted. They may receive student financial assistance or VA funding for all other coursework at WTC contingent upon their eligibility.

It is worth noting that a minimum of 50% of credits earned for graduation must be earned from WTC.

Transfer Credit for Students Entering the BSN Program

Applicants who wish to have their previous education considered for credit must do so prior to starting the program. Students that have taken general education coursework over the last ten (10) years, may be entitled to course exemption credit provided that the grade(s) earned are a "B" or higher. General education courses that are nursing related (A & P, Microbiology, Nutrition, Pathophysiology) and that are considered for credit will need to be retaken even if financial credit is granted.

Students who have taken non-general education courses over the last five (5) years, may be entitled to course exemption credit provided they earned a B or higher. Although students receiving exemptions will receive financial credit, they will be required to retake the courses.

Transfer Credit for Students Entering the Medical Clinical Assistant Program

Medical Clinical Assistant applicants who wish to have their previous education reviewed for transfer credits must provide transcripts to be evaluated by the Campus President. The Program Director must ensure that transfer credit meets transfer credit standards established by CAAHEP.

Transfer Credit for Students Entering the Master of Business Administration program

Applicants may present an official transcript for evaluation, but WTC will accept an only maximum of 12 credits from other colleges. The official transcript must come directly from the college or university and sent to the Admissions Department in order to be considered.

Transfer Credit for Students Graduating from WTC to other Institutions of Higher Learning

WTC does not imply, promise, or guarantee that credits completed at WTC will be accepted by or transferable to any other college, university, or institution, and it should not be assumed that any credits earned at WTC can be transferred to another institution. In the United States higher education system, each institution has its own policies governing the acceptance of credit from other institution, and acceptance is determined by the receiving institution, considering such factors as course content, grades, accreditation, and licensing. Students seeking to transfer credits from WTC to another institution should contact the institution to which they seek admission to inquire about that institution's policies on credit transfer.

STUDENT FINANCIAL SERVICES

Student financial services professionals are available to provide students information on the financial aid programs available to them, assistance to complete application processes, and provide information on other resources to cover the cost of attendance. Student Financial Services is open during normal business hours at both campuses, including Monday through Thursday evenings. Students are encouraged to contact the office any time they have questions or concerns about financial aid or any aspect of college financing.

WTC participates in Federal Title IV Student Aid programs authorized under Title IV of the Higher Education Act of 1965 (as amended) and is approved for the training of veterans and other eligible persons in accordance with the provisions of Section 3675, Title 38, U.S. code. Financial assistance is made available to qualified students according to the rules of each individual student aid program.

The WTC website contains detailed information about the types of student aid available, application procedures, eligibility rules, and the rights and responsibilities of students receiving federal student aid at www.westerntech.edu.WTC complies with all applicable state, federal, and equal credit opportunity laws; however, WTC does not guarantee financial assistance to any student.

Common Terms Used in Financial Aid:

Grant or Scholarship is money that is used to help a student pay for school-related expenses. These items are awards that do not need to be re-paid.

Federal Work-Study award must be earned through work at an hourly wage. The student must qualify to participate in the Federal Work-study Program.

Loan must be re-paid at a future date through monthly payments. money that is used to help a student pay for school-related expenses. Be sure to read and understand the terms and conditions prior to agreeing to any loan or financing agreement.

Transfer Credit is credit awarded to a student for a similar course(s) taken at another institution of higher education, with the same or parallel objectives. Transfer credit may also be given based on an individual's work experience in the field of study. Also, updated industry certifications may be applied for transfer credit, depending on the program of study.

Course Exemption refers to course(s) of study that have been taken by the prospect at the same institution or different institution of higher education, with the same course objectives that allow the student to forgo having to take the same class, and not be charged for said course(s) in the new program.

An Award is an external monetary value that is provided through Military Appreciation Award and High School Articulation or scholarship and applied to tuition only.

Alumni Credit

Graduates who qualify for the alumni discount will also be required to maintain at least a 2.0 GPA per course to qualify for the alumni discount benefit. Students who do not meet this benchmark during the billing cycles (as described below) will not qualify for the alumni discount for that cycle.

Graduated Scale with a 50% Maximum

1st period 10% of tuition billed for period
2nd period 20% of tuition billed for period
3rd period 30% of tuition billed for period
4th period 40% of tuition billed for period
5th period 50% of tuition billed for period
6th period 50% of tuition billed for period

- Credit posted at the beginning of the next period
- Attendance and GPA requirements
- No probation for the applicable period
- Student Accounts Office will send an inquiry to Administrative Specialist before posting credit

NOTE: For the alumni to receive the full benefit of the tuition discount, the alumni entering the new program, must maintain minimum academic and attendance requirements.

FEDERAL STUDENT AID

The following are brief descriptions of the aid programs in which WTC participates. More detailed information is available on the college's website at www.westerntech.edu.

Federal Pell Grant

The Pell Grant does not require repayment. Eligible students who have not received a bachelor's degree may receive this grant based upon their Expected Family Contribution (EFC) as determined through the FAFSA application process. More details can be found in the WTC Financial Services Consumer Guide or the Department of Education's website at studentaid.gov.

Federal Supplemental Education Opportunity Grant (SEOG)

Pell-eligible students may also be eligible for an additional grant under this program. SEOG awards are limited to those eligible students with the lowest EFCs (generally only zero EFC's).

Federal Work-Study Program

This program enables students who demonstrate financial need to earn a portion of their education expenses. Students earn at least the current hourly minimum wage by working at the college, at non-profit organizations, or for other community employers.

Federal Stafford Loan Program

Eligible students at WTC can borrow a traditional "student loan" from the Federal Direct Student Loan Program. These loans are called Federal Stafford Loans, and the interest on these loans may be subsidized and/or unsubsidized. For maximum loan amounts, explanations of the differences between the "subsidized" and "unsubsidized" loan programs, and other important information, the candidate should visit the College's website at: www.westerntech.edu or Department of Education's website at studentaid.gov.

Federal PLUS Loan (Parents)

Parents of dependent students at WTC are generally able to borrow a Federal Parent PLUS Loan based on approved credit. Parents can borrow up to the full cost of education minus any other aid received.

Alternative Financing

In the event the student is unable to pay completely for their education with Federal Student Aid funds, WTC offers students other options:

Monthly Payment Plans, WTC works with Tuition Options to offer monthly payment plans. Tuition Options Payment Plan allows students to make equal monthly payments across the school year for any remaining balance after other forms of financial assistance are considered. In some cases, Tuition Options may also extend payments up to a maximum of 1.5 times the length of the training program the student has enrolled in.

Private student loans are also available to students through College AVE. Loan eligibility is based on approved credit.

Personal Financing

If a student and/or parent would like to obtain personal financing through their own lender, they must consult with the Student Financial Services Office to discuss a personalized payment schedule.

SCHOLARSHIPS AND AWARDS

The primary purpose of this program is to encourage high school seniors to pursue high-tech career training. The secondary purpose is to assist disadvantaged students facing financial hardships who, although academically capable, may not otherwise be able to afford specialized career training. The following are brief descriptions of the scholarships that WTC offers for qualified students.

High School Senior Scholarships

The WTC High School Senior Scholarship awards five (5) total scholarships from each of the (15) eligible programs to all school districts throughout the Southwest region. The process to complete the High School Senior Scholarship application is as follows:

- Submit two letters of recommendation from an appropriate source (teachers, employers, counselors). Submit an essay explaining why you want a career in the field you are applying for (minimum 300 words). Describe your activities in school, work experience, previous training, and goals.
- Provide an official copy of your current high school transcripts (after the first Senior year semester).
- Schedule a Wonderlic Basic Skills Test (WBST) to be administered at WTC.

Awarded scholarships will be applied towards current tuition using the following formula**:**

1st place will receive 25% off tuition
2nd place will receive 20% off tuition
3rd place will receive 15% off tuition
4th place will receive 10% off tuition
5th place will receive 5% off tuition

All seniors who will be graduating from high school in the spring are eligible to apply for the High School Senior Scholarships. Students who wish to apply should see their high school career center or school counselor for a scholarship application or visit the Westerntech.edu website. The selection process is completed by a committee of local high school personnel. The application and review process are completed in mid-April.

High School Senior scholarships and awards are valid for one year after the date and are not a cash award. They are applied only towards tuition fees. They are non-transferable and redeemable only at WTC. Scholarships and awards are deducted from tuition only when a student successfully completes their program.

Skills USA Scholarships

WTC offers scholarships to the winners of the Skills USA competition (El Paso regional area). The High School Senior participants who place 1st through 3rd in each category will receive a scholarship using the following formula:

1st place will receive 20% off tuition
2nd place will receive 15% off tuition
3rd place will receive 10% off tuition

The High School Junior participants who place 1st through 3rd in each category will receive a scholarship using the following formula:

1st place will receive 10% off tuition
2nd place will receive 7.5% off tuition
3rd place will receive 5% off tuition

Skills USA Scholarships for Seniors and Juniors are valid for one year after the date and are not a cash award. They are applied only towards tuition fees. They are non-transferable and redeemable only at WTC. Scholarships are deducted from tuition only when a student successfully completes their program.

Military Appreciation Award

Active duty and reserve service members, honorably discharged veterans, or National Guard members, and their dependents qualify for 10% reduction to current tuition. Supporting documentation to be considered for the award is as follows:

1. Veteran. A copy of the prospective student's DD214 and a picture ID.
2. Military Dependent Spouse. A copy of military spouse's DD214 and/or proof of active duty (active orders); picture ID; and marriage certificate.
3. Military Dependent Child. NOTE THE DISTINCTIONS:

    a) Biological Child: birth certificate, parent's DD214 (honorable discharge) or military parent's ID. B)
    b) Stepchild: birth certificate, marriage license, stepparent's DD214 (honorable discharge), or military parent's ID and/or proof of active duty, service, or national guard.
    c) Adopted Child: adoption paperwork, DD214 or military parent's ID.

The 10% reduction does not apply to books, tools, or any other charges

Career Colleges and Schools of Texas (CCST) Scholarships

WTC participates in the Career Colleges and Schools of Texas (CCST) scholarship program, which is available for high school seniors in both public and private high schools in Texas. The scholarship award is valued at $1,000.00, and each school receives 10 scholarship certificates per calendar year. The scholarship can be redeemed at participating colleges and universities throughout the state. The selection process is done at each high school and only high school counselor(s) may award a scholarship. The career school and high school counselor are both notified when a scholarship is issued. Scholarship recipients must graduate from high school in the same school year (September-June) as the issue date of the scholarship, and the deadline for awarding scholarships is August 31 of the year that the student graduates from high school. Prospects who submit a CCST scholarship that falls outside of the accepted dates will not be eligible for acceptance at WTC. Interested students should see their Texas high school career center or school counselor for CCST scholarship information.

Academic Requirements for Scholarships and Awards

Each scholarship/award may have academic requirements for a student to remain eligible for continued payments. Recipients of each scholarship will be notified in writing of any such requirements. This will be administered by the College Education Liaison staff.

Limit on Awards

Prospective students who are enrolling will not be granted more than 50% off tuition in total scholarship and course exemption awards.

Scholarships from Other Institutions

Prospective students who are enrolling will have the option to use institutional-specific scholarship awards granted to high school students, made out to other colleges and universities, not to exceed the total amount of $5,000.00 towards tuition. Scholarships and awards are valid for one year after the date and are not a cash award. They are applied only to tuition fees. Scholarships are non-transferable and are redeemable only at WTC.

ACADEMIC PROGRESS FOR FINANCIAL AID ELIGIBILITY

All WTC students must maintain satisfactory progress toward completion of their academic programs. Students who fail to meet the academic progress standards of the college are subject to both academic penalties and the potential loss of eligibility for federal aid. The standards below apply exclusively to eligibility for federal student financial aid.

Definitions Effective 2019

- **Degree Program** are defined as programs that lead to an Associate, Baccalaureate, or master's degree.
- **Certificate Programs** are non-term programs that do not result in a degree but do offer a Certificate of Completion.
- **Graduate degrees** are programs that lead to master's degrees.

Degree programs are measured in traditional Semester Credit Hours, while certificate programs are measured in Clock-to-Credit Conversion Credit Hours.

Payment Periods

The measurement of Academic Progress for Financial Aid occurs in increments that correspond to the "payment periods" for Federal Title IV Financial Aid. Academic Progress is measured at the end of each payment period. For degree programs, the payment period is the Semester. For Certificate programs, the payment period is defined as one-half (as measured in both weeks and credit hours--instructional hours) of the student's scheduled academic year or the remaining scheduled period of instruction until program completion (whichever is less). If the remaining period of instruction is less than one-half of the standard academic year, (fewer than 12 credit hours) it is considered a single payment period.

Academic Progress Standards for Financial Aid	Minimum Cumulative Grade Point Average	Cumulative Hours Completed/ Attempted
End of 1st payment period	1.50	67 percent
End of 2nd payment period	1.75	67 percent
End of 3rd or subsequent payment period	2.00	67 percent

Additional "Maximum Timeframe" Standard

Eligibility is also limited to students completing their programs within one and one-half times the usual program length. The maximum timeframe is reached when the student has attempted more than one and one-half times the number of clock or credit hours required to graduate from their program. The maximum timeframe standard evaluation for transfer students will consider all credits attempted at WTC or accepted for transfer or proficiency

credit. Students who change programs may request that their maximum timeframe be re-calculated based solely on the hours that are applicable to the current program of study. A determination of ineligibility based upon the maximum timeframe standard may be reversed based upon a mitigating circumstance. Students should refer to the "Regaining Academic Eligibility" section (below).

Exempted Course(s) Credit

Twelve credit hours constitute a full semester, and students exempt from course(s) will not be charged for the course exemptions; however, students enrolled in degree semester programs that are eligible for Title IV funds will receive financial aid appropriate to their enrollment status for the semester. For more information, students should see their Student Financial Services Specialist.

GPA and Grading Policy

All issues of grading policy, Grade Point Average (GPA) calculation, attendance, and so on are calculated in accordance with the regular academic policies of WTC.

For Degree Programs "Attempted Hours"

"Attempted hours" are any credit hours for which the student was charged or received financial aid. "Completed Hours" refers to the number of "attempted" credit hours for which a student received a passing grade. For Certificate programs, "Attempted Hours" means the number of scheduled credit hours in the program as listed in the academic calendar to the measurement point. "Completed Hours" means the number of "attempted" credit hours a student attended.

Transfer Students

Accepted transfer credit is considered completed coursework for purposes of this policy. Because no grades are assigned to transfer courses, they will not impact the student's GPA. Academic years and payment periods for transfer students are defined individually based upon the remaining period of instruction.

Return after a Leave of Absence

A student who returns after a leave of absence, withdrawal, or other extended absence of 180 calendar days or fewer, will not have the period of absence considered in the calculation of academic progress. In all other aspects, the student's progress will be evaluated in the same manner as if the absence had not occurred, except for any necessary changes to the start and end dates of planned payment periods. A student who returns after a withdrawal, dismissal, or other absence of more than 180 days will be measured in a manner consistent with a transfer student (see above). Students who do not return on their scheduled return date from their LOA will be dropped.

Financial Aid Warning Status

Students who fail to meet the standards defined above will be placed on Financial Aid Warning Status for their subsequent payment period. Students in Warning Status remain eligible for federal student aid. A student who has not returned to "good" academic standing by the end of the Financial Aid Warning Status payment period will lose eligibility for federal student aid from that point forward. Such dismissal/loss of eligibility may be subject to appeal (see below).

Data Corrections

If a student's academic record is corrected after the evaluation date, a student may submit a written request to the Student Financial Services Director for re-evaluation of the student's financial aid eligibility.

REGAINING ACADEMIC ELIGIBILITY FOR FINANCIAL AID

The Mitigating Circumstances Appeal

A determination of loss of eligibility for federal financial aid may be appealed based on mitigating circumstance(s). A mitigating circumstance is defined as an exceptional or unusual event(s) beyond the student's direct control, which contributed to or caused the academic difficulty. Examples include the death of a relative, an injury or illness

of the student, or other special circumstances. Appeal letters should be addressed to the Financial Services Director and must include a complete description of the circumstances that led to the academic difficulty, how those circumstances have changed, and a plan for future academic success. Copies of supporting documentation should be included. All appeals are reviewed by a committee of academic and administrative staff whose determination is final. A mitigating circumstance appeal may also be used to override the Maximum Timeframe Standard. A student for whom a mitigating circumstance appeal is approved will be placed on Financial Aid Probation Status for one payment period. If the student has not returned to good academic standing by the end of a probationary payment period, they will lose eligibility for future financial aid.

Regaining Eligibility Other Than through Appeal

Students who have lost federal financial aid eligibility may potentially regain academic eligibility by one or more of the following methods: be accepted into a different academic program at WTC, if the re-evaluated student's record (based upon the courses applicable to the new program) is found in compliance with all academic standards and/or make up the academic deficiencies at WTC without benefit of federal financial aid. In each of these circumstances, approval left to the discretion of the Campus President.

Return to Good Standing

Once a student has returned to good academic standing, any previous academic difficulty, warning, or probation will have no future bearing on the student's status. Those students will have benefit of all provisions of this policy, including a warning payment period.

CANCELLATION AND REFUND POLICY

Cancellation Policy

If a student wishes to cancel their contract, and thereby cancel their enrollment in the program designated above, they must provide written notice addressed to Administration. If using U. S. mail delivery, the student should send the notice of cancellation via registered mail to the appropriate campus address listed above. If the student cancels the enrollment contract within 72 hours after the enrollment contract is signed (until midnight of the third day excluding Saturdays, Sundays, and legal holidays), a full refund will be made. If the student cancels the contract or fails to begin their program within 14 school days of the program start date, a full refund will be made, less the $100 Registration Fee. The student will be eligible for a full refund of books and supplies for any of those items returned to Western Tech in good condition. Any books and supplies that are distributed and are not returned to Western Tech will be billed to the student. Any balances that remain for non-returned items will be billed to the student, and any balance owed must be paid within three months to avoid the account's being sent to collections.

Refund Policy

If a student withdraws or is withdrawn from Western Tech more than 14 school days following the program start date, and prior to the completion of the program, refunds will be calculated as appropriate. If a student withdraws from Western Tech, they must submit a written withdrawal request to the Program Director or Registrar. Refunds will be calculated as set forth below.

1. Refund computations will be based on scheduled clock hours of class attendance through the last date of attendance. Leaves of absence, suspensions, and school holidays will not be counted as part of the scheduled class attendance.
2. The effective date of termination for refund purposes will be the earliest of the following:
    a. The last day of attendance if the student is terminated by Western Tech
    b. The date of receipt of written notice from the student or
    c. Ten school days following the last date of attendance.
3. If the student account shows a credit balance, Western Tech will refund the amount according to the completed Student Account Closeout form on file with the Financial Aid office. Refunds are issued only when a credit balance exists.

4. If the student enters a residence or synchronous distance education program and withdraws or is otherwise terminated, Western Tech will not refund the $100 registration fee. The refund of the remaining tuition and fees will be the pro rata portion of tuition, fees, and other charges that the number of hours remaining in the portion of the course or program for which the student has been charged after the effective date of termination bears to the total number of hours in the portion of the course or program for which the Student has been charged, except that the Student may not collect a refund if the Student has completed 75 percent or more of the total number of hours in the portion of the Program for which the Student has been charged on the effective date of termination.
5. Refunds for books and supplies will be handled separately from refund of tuition and other academic fees. The student will not be required to purchase books and supplies until these materials are required for the program. Once these materials are purchased, no refund will be made.
6. If a student withdraws for a reason unrelated to their academic status after the 75 percent completion mark and requests a grade at the time of withdrawal, they will be given a grade of "Incomplete" and permitted to re-enroll in the course or program during the 12-month period following the date they withdrew without payment of additional tuition for that portion of the course or program.
7. A full refund of all tuition and fees is due and refundable in each of the following cases:
    a. A prospective student is not accepted by Western Tech
    b. If the course of instruction is discontinued by the school and this action prevents the student from completing the course
    c. If a student's enrollment was procured because of any misrepresentation in advertising, promotional materials of the school, or representations by the owner or representatives of Western Tech
    d. A full or partial refund may also be due in other circumstances of program deficiencies or violations of requirements for career schools and colleges.
8. If, during the program, Western Tech determines that a student is unlikely to be successful in his or her program, the school reserves the right to terminate the student's training. In that instance, tuition will be refunded in accordance with the refund policy.

Refund Policy for Students Called to Active Military Service

If a student withdraws because they are called to active duty in a military service of the United States or the Texas National Guard, the student may elect one of the following refund options:

a. If tuition and fees are collected in advance of the withdrawal, a pro rata refund of any tuition, fees, or other charges paid by the student for the program and a cancellation of any unpaid tuition, fees, or other charges owed by the student for the portion of the program the student does not complete following withdrawal.
b. A grade of Incomplete with the designation "withdrawn military" for the courses in the program, other than courses for which the student has previously received a grade on the transcript, and the right to reenroll in the program, or a substantially equivalent program if that program is no longer available, not later than the first anniversary of the date the student is discharged from active military duty without payment of additional tuition, fees, or other charges for the program other than any previously unpaid balance of the original tuition, fees, and charges for books for the program
c. The assignment of an appropriate final grade or credit for the courses in the program but only if the instructor or instructors of the program determine that the student has performed either of these:
    i. satisfactorily completed at least 90 percent of the required coursework for the program.
    ii. demonstrated sufficient mastery of the program material to receive credit for completing the program.

2. The payment of refunds will be completed so that the refund instrument has been negotiated or credited into the proper account(s) within 60 days after the effective date of termination.
3. In all cases, refunds issued under this section will meet or exceed the requirements of TEC, §§132.061 and 0611.

RETURN OF TITLE IV FUNDS

Return to Title IV/ Refund Repayments Policy

This policy applies to recipients of Federal Title IV Financial Aid funds who cease enrollment for any reason prior to graduation. Students who are no longer attending may owe funds to the college to cover unpaid tuition, fees, and other charges. The college will attempt to collect from the student any funds that the college was required to return to the financial aid programs under this policy.

The college will calculate how much federal aid may be retained or disbursed for a student who withdraws prior to the end of a payment period. The calculation is referred to as "Return of Title IV Funds" (R2T4). The calculation of Title IV funds earned by the student has no relationship to the student's tuition and fees that may be owed to the college. All students subject to this policy will have their eligibility calculated according to the following definitions and procedures as prescribed by regulation.

Withdrawal before 60%:

The college must compare the amount of Title IV aid the student earned to the amount disbursed and determines whether funds must be returned, or the student is eligible for a post-withdrawal disbursement. The college determines the amount of earned aid up through the 60% point in each payment period and uses the Department of Education's proration formula to determine the amount of financial aid funds the student has earned at the time of withdrawal.

Withdrawal after 60%:

After the 60% point in the payment period or period of enrollment, a student has earned 100% of the Title IV funds they were scheduled to receive during the period. For a student who withdraws after the 60% point-in-time, there are no unearned funds; however, the college will calculate the student's eligibility for a post-withdrawal disbursement.

Calculating R2T4

Title IV funds are earned in a prorated manner up to the 60% point in the payment period. The proration is based upon scheduled classroom/instructional hours (clock hours) for clock-hour programs and calendar days for credit-hour programs. The college will determine the earned and unearned Title IV aid as of the student's last date of attendance (LDA) and the college's academic calendar.

In accordance with federal regulations, when Title IV financial aid is involved, the calculated amount of the R2T4 funds is allocated in the following order: Unsubsidized Direct Loans, Subsidized Direct Loans, Direct PLUS loans followed by Federal Pell Grants and Federal Supplemental Educational Opportunity Grants (FSEOG). The calculation steps are outlined as follows:

1. Calculate the percentage of Title IV aid earned by the student. Days or clock hours scheduled through LDA/days or clock hours in the payment period.) = 15.3% (% of completed calendar days within the payment period) 118 (scheduled days). Calculate the dollar amount of Title IV aid earned by the student. The percentage as calculated in step one above yields amount of aid which was disbursed to the student or could have been disbursed to the student.
2. If the earned amount is greater than the total Title IV aid disbursed for the payment period, a Post-Withdrawal Disbursement will be calculated; if the amount is less than the amount of Title IV aid disbursed, the difference will be returned to the federal student aid programs.

Return to Title IV Funds Timeframe

WTC adheres to the maximum timeframes prescribed by regulation to return unearned funds. The date of the determination of the student's withdrawal remains 14 days from the student's last day of attendance; with exception of students determined to be on an approved leave of absence. The institution will return any unearned funds within 45 days after the date the institution determined that the students withdrew.

Post-Withdrawal Disbursement

If a student earned more aid than was disbursed to them, the student may be eligible for a post-withdrawal disbursement. The college will notify the student in writing if they are eligible for a post-withdrawal disbursement of Title IV loan funds. A student or parent borrower must first confirm in writing whether they accept/decline all or some of any loan funds offered as a post-withdrawal disbursement. A post-withdrawal disbursement of Federal Pell Grant funds does not require student acceptance or approval. The college will seek the student's authorization to use a post-withdrawal disbursement for all other educationally related charges in addition to tuition and fees.

Overpayments

Any amount of unearned grant funds that a student must return directly is considered an overpayment. The maximum amount of a grant overpayment that a student must repay is half of the Pell Grant funds received or were scheduled to receive. Students in this circumstance must decide with the college and/or the U.S. Department of Education to return the unearned grant funds. Failure to do so will result in ineligibility for future federal financial aid.

ACTIVE MILITARY AND VETERAN AFFAIRS

WTC will help students complete required forms and submit documentation for veterans' educational benefits under chapters 1606, 30, 31, 33, 35, MyCAA, and Tuition Assistance. WTC provides ongoing services to veterans and their dependents and is responsible for creating and maintaining records used to certify a student's status for the VA.

Flexibility of programs and procedures particularly in admissions, advising, credit transfer, course articulations, recognition of nontraditional learning experiences, scheduling, course format and residency requirements are provided to enhance access to WTC's education programs

For More Information, Students Should Refer to WTC's Veterans Guide
https://www.westerntech.edu/financial-assistance-for-military-veterans/

For immediate information candidates and students may call for assistance at either campus.

- Main Campus (915)532-3737 or 1(800)225-5984
- Branch Campus (915)566-9621 or 1(800)225-5984

Any evaluation of a military training record must apply to the student's declared degree or certificate program for consideration of course exemption.

All new and returning students who intend to receive VA educational benefits while enrolled at WTC must be aware of the following:

1. Registration for WTC classes does not automatically certify an individual for VA benefits. If a candidate has never used VA benefits, they must visit Veterans Resource Center to apply for a Certificate of Eligibility (COE) from the VA. Any candidate that has previously used VA benefits, can visit the Veterans Resource Center to verify eligibility.
2. Candidates are required to submit copies of all transcripts from each institution previously attended or currently attending, to the Veterans Resource Center.; VA regulations stipulate that all prior training, where VA educational benefits were previously used, must be evaluated by the Campus President and Program Director for a candidate to receive educational benefits. Any consideration for course exemption based on previous training and/or education must be processed before the student begins school. This includes military Joint Services Transcripts (JST) from any military branch.
3. It is the student's responsibility to report promptly and to submit supporting documentation of any changes in their degree plan or preliminary program of study, degree objective, course(s) substitution(s), enrollment (part of terms), or address to the Veterans Resource Center.
4. If a student receives a non-punitive grade, WTC will notify the Department of Veteran Affairs. VA educational benefits will not be paid if a student withdraws from a course or for a course that will not be used in computing requirements for graduation. The VA may reduce or terminate benefits if a student cannot show mitigating circumstances.

Mitigating circumstances are those unanticipated or unavoidable events that interfere with a student's pursuit of a course or program. A student may submit evidence to substantiate mitigating circumstances; however, the Department of Veteran Affairs will determine eligibility for resumption of benefit payments.

Non-punitive grades are these: a "W" grade for withdrawing from a course; an "I" grade for an incomplete course that is not made up during the time required by the school.

A student must maintain satisfactory attendance and progress toward completion of their educational objective. If they do not meet the school standards, WTC will notify the Department of Veteran Affairs.
VA regulations are subject to change without notice. For current information, check with the WTC Veterans Affairs Office, or contact the Department of Veterans Affairs, Muskogee, OK at 1-888-442-4551.

Course Retakes

Students who have failed a course will be required to repeat the course (or courses) and will be charged for the cost of the course(s). Students are reminded that retaking a course may affect the student's graduation date, and depending on course schedules and availability, may require the student to change class schedules for the remainder of their training. Retakes may also affect agency and/or Title IV funding. Students should check with Veterans Resource Center, Student Financial Services and Student Accounts.

Exempted Course(s) Credit

Twelve credit hours constitute a full semester, and students exempt from course(s) will not be charged; however, students enrolled in degree programs are that are eligible for Title IV benefits will receive financial aid appropriate to their enrollment status. Basic Allowing Housing (BAH)will be paid in accordance with a student's enrollment status. Students should check with the WTC's Veterans Resource Center for details.

Veterans Information Sources

Department of Veterans Affairs (VA) www.va.gov or www.gibill.va.gov

Department of Veterans Affairs
Muskogee Regional Processing Office (Education) PO Box 8888
Muskogee, OK 74402-8888

Educational Benefits Inquiries: 1-888-442-4551 (1-888-GIBILL-1)
Website: www.vba.va.gov/Muskogee.htm
E-mail: muskrpo@vba.va.gov

AIR FORCE: Community College of the Air Force	ARMY, COAST GUARD, MARINE CORPS, AND NAVY: Joint Services Transcript (JST)
CCAF/DFRS 100 South Turner Blvd., Gunter Annex, AL 36114-3011 http://www.au.af.mil/au/ccaf/	NETPDTC ATTN: JST Operations Center N615, 6490 Saufley Field Road, Pensacola, FL 32509 Email: jst@doded.mil https://jst.doded.mil/

Military Transcript Requests

. Veterans Resource Center will request Joint Service Transcript JST, for Veteran or Active-Duty candidates, to submit for credit evaluation prior to any certifications.

Veteran Leave of Absence Policy (LOA)

All LOAs requested by veterans must be approved by the Program Director and the VA Certifying Official. All Chapter 31 students are required to receive authorization for a Leave of Absence from their designated Vocation Rehabilitation Counselor before they are granted a LOA. Any student requesting an LOA will be notified that their veteran benefits may be suspended until they have returned at which time; the veteran will be reinstated and recertified. Veterans are encouraged not to take an LOA in the middle of a course but rather at the end of a course. If a veteran requests an LOA in the middle of the course, the veteran will be responsible for paying back the money received. Furthermore, upon recertification, the Veterans Affairs office can take up to two (2) months to process recertifications, which may result in further delay of payments.

Military Obligations, Attendance, and Make-up Work

Many students choose to serve while pursuing their education. Standing by its reputation as a military friendly school, WTC attempts to accommodate a student's desire for continuing service. For members of the National Guard and Reserves, there may be times when students might miss a class or two due to a weekday drill or similar military training. If orders are not issued, the student must contact the Administrative Specialist and bring a signed letter (usually from the unit CO) that specifically outlines the date(s) on which the student was in a military status. The Registrar, upon verifying the letter, will send a clearance notification via email directly to the student. Notification will be sent to the instructor, either in person or through email. Students are responsible for keeping their course instructor(s), Program Director, Registrar, and VA certifying official informed of all military absences to agree upon and document make-up work or a leave of absence.

Internship

VA students must complete their internship by the end of the module or their expected graduation date, whichever comes first.

Time Codes

The following time code is used on all courses in every program to illustrate the amount of time students will spend in class or lab per course and the subsequent number of credit hours awarded.

44/48/4.0- Theory hours per course / Lab hours per course / Semester Credit Hours

PROGRAM OFFERINGS

C E R T I F I C A T E P R O G R A M S

CERTIFICATE OF COMPLETION IN ADVANCED WELDING TECHNOLOGY

Available at 9624 Plaza Circle Campus

Individuals portrayed in photos are actual students, graduates, or employees of WTC.

Career Opportunities in Advanced Welding Technology

Employment of welders, cutters, solderers, and brazers is projected to grow 2 percent from 2021 to 2031, slower than the average for all occupations. Despite limited employment growth, about 47,600 openings for welders, cutters, solderers, and brazers are projected each year, on average, and over a decade from 2016 to 2026, to grow 4 percent. Employment growth reflects the need for welders in manufacturing because of the importance and versatility of welding as a manufacturing process. Welders work in a wide variety of industries, from car racing to manufacturing. The work that welders do and the equipment they use vary with the industry. There are more than 100 different processes that a welder can use. The type of weld normally is determined by the types of metals being joined and the conditions under which the welding is to take place.
(Source: D.O.L. *Occupational Outlook Handbook*, 2021-2022 Edition)

Labor Market Information (2021 thru 2031 Projections)	**Texas**	**National**
Labor Market Information Employment 2021	46,580	428,000
Projected Employment 2021	59,530	476,000
Absolute Change 2021-2031	6,790	6,900
Percent Change 2021-2031	23.0%	2.0%
Average Hourly Wage 2021	$24.31	$22.60
Average Openings per year due to Replacement	Not available	Not available
Average Openings per year due to Growth	7,183	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

CERTIFICATE OF COMPLETION IN ADVANCED WELDING TECHNOLOGY
COURSES 1-10
1030 CLOCK HOURS
39.0 Semester Credit Hours

Educational Objectives

The objective of the Advanced Welding Technology program is to train the student as a qualified welder. The qualified welder is capable of interpreting welding blueprints, cutting and welding with oxyacetylene, and doing plate welding with Shielded Metal Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW), Gas Metal Arc

Welding (GMAW), Innershield (IS), and Flux Core Arc Welding (FCAW). In addition, students will learn skills for pipe lay-out and fit-up, flange applications, rolling offset, and pipe blueprint reading.
Those who complete the program successfully will be prepared to work in entry-level positions as structural or pipe welders in various welding environments such as construction companies, shipyards, factories, fabrication companies, welding shops, and other enterprises.

Certifications

*Structural Certifications: 2G/3G/4G SMAW - 1/4" V-groove
*Pipe Certifications:
6G SMAW - 3" sch. 40
6G Combo: SMAW / GTAW - 3" sch. 40

Note: Students must pass all structural certification tests as a prerequisite for the pipe welding portion of the program. WTC welding certifications will be awarded only upon completion of the program.

Graduation Requirements

Students will be required to demonstrate an entry-level degree of proficiency in each competency as outlined in each course description. A student who fails to achieve the required levels of competency will not be able to graduate. Students graduating from this program must meet general graduation requirements.

Technical Standards and Essential Functions

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. Ability to adhere to concise safety policies/procedures.
2. Ability to stand for extended periods of time.
3. Ability to flex, bend, or twist with body, arms, and legs.
4. Ability to see detail at close range.
5. Ability to maintain prescribed attendance/performance levels that meet academic requirements.

Note: The sequential order of classes may differ from than what is listed in the program outline below. Courses with prerequisites are indicated in the course outline with an asterisk (*).

CERTIFICATE OF COMPLETION IN ADVANCED WELDING TECHNOLOGY

#	Course Number	Course Title	Hrs.	Theory/ Lab	% On-Ground/ Online	Semester Credit Hours
1	FOU 101	Foundations	48	26/22	80/20	2.0
2	OR 101	Orientation	48	26/22	80/20	2.0
*3	PR 102	Blueprint Reading Fundamentals	111	27/84	80/20	4.5
*4	PR 103	Blueprint Structural Shapes & Symbols	111	27/84	80/20	4.5
*5	PM 104	Pipe Welding Symbols & Metallurgy	111	27/84	80/20	4.5
6	CW 105	Structural Code Welding	111	27/84	80/20	4.5
7	PW 301	Pipe Welding & OSHA Safety	111	27/84	80/20	4.5
8	PW 302	Combination Pipe Welding	111	27/84	80/20	4.5
9	PW 303	Code Pipe Welding	96	23/73	80/20	3.5
10	CD 100	Career Development	32	20/12	80/20	1.5
*11	IN 108	Internship	140	0/0/140	00/00	3.0
		Total Hours and Credits - Certificate of Completion in Advanced Welding	**1030**	**257/633/140**		**39.0**

ADVANCED WELDING TECHNOLOGY COURSE DESCRIPTIONS

FOU 101 **FOUNDATIONS** **26/22/2.0**

Upon completion of this course, the student will be able to identify and state individual educational goals and formulate specific plans to work towards the goals; design and implement a personal time management plan; identify preferred learning style and employ strategies for effective reading and studying; describe and employ critical thinking and creative thinking skills; describe effective listening, note taking, memory retention, writing skills, communication skills, and methods for improving these skills; describe and use various methods of exam preparation; explain test anxiety and list strategies for reducing it; describe the interview process and strategies for successful interviewing; create a resume and a cover letter; perform basic computer, email, and internet operations; create simple word documents; design and deliver a simple presentation; and use the learning management system (Canvas) that will be used for the distance education platform

OR 101 **ORIENTATION** **26/22/2.0**

Upon completion of this course, students will be able tell the history of welding; describe the oxy/acetylene process for welding and cutting; apply basic math concepts follow safety precautions; and demonstrate the proper use of hand tools and measuring equipment. Students will develop positive safety and work habits for their entry into the workforce.

PR 102 **BLUEPRINT READING FUNDAMENTALS** **27/84/4.5**

In this course students will become familiar with the fundamentals of blueprint reading and understand the use of various engineering drawings and terminology. Students will interpret and fabricate weldments from a blueprint using the SMAW process and begin welding in the 2F/3F/4F positions.

PR 103 **BLUEPRINT STRUCTURAL SHAPES & SYMBOLS** **27/84/4.5**

Upon completion of this course students will be able to identify shapes and welding symbols used in structural blueprints; operate a track torch and weld in the 2G position using the SMAW process; and be able to explain the role of “destructive” testing.

PM 104 **PIPE WELDING SYMBOLS AND WELDING METALLURGY** **27/84/4.5**

Upon completion of this course students will be able to describe the requirements of AWS D1.1 Code Welding; use the principles of structural weld testing and perform practice structural welding tests; and take the prescribed AWS structural certification tests using the SMAW welding process.

CW 105 **STRUCTURAL CODE WELDING** **27/84/4.5**

In this course students will be introduced to the requirements of AWS D1.1 Code Welding, understand the principles of structural weld testing, perform practice structural welding tests, and take the prescribed AWS Structural certification tests using the SMAW welding process.

PW 301 **PIPE WELDING AND OSHA SAFETY** **27/84/4.5**

Upon the completion of this course, students will be able to perform pipe welding using the SMAW process and explain the certification requirements of the API 1104 pipe welding codebook; follow OSHA safety procedures for excavation/trench, fall protection, and confined space safety; and perform in 2G/5G/6G pipe welding positions.

PW 302 **COMBINATION PIPE WELDING** **27/84/4.5**

In this course students will learn the procedures for SMAW/GTAW (Combination) pipe welding and advanced pipe fit-up techniques. Practice certification tests using the ‘Combo’ process will be administered and students will fabricate from piping blueprints using the required formulas and layout procedures.

PW 303 **CODE PIPE WELDING** **23/73/3.5**

In this course students will take API 1104 pipe welding certification tests, receive a comprehensive review of all previous courses, and complete a final exam.

CD 100 **CAREER DEVELOPMENT** **20/12/1.5**

Upon completion of this course, students will be able to produce a resume, cover letter, reference list, and relevant documentation in alignment with their career field and personal background. Students will learn and apply techniques concerning the job search process, navigation of electronic and traditional employment applications, various forms of interviews, and follow-up correspondence. Students will utilize research methods in preparation for successful interviews, career mobility, and advancement.

IN 108 **INTERNSHIP** **0/0/140/3.0**

In this course students will experience the daily routines of a Welding/Fabrication shop or 'on site' work environment. Students will have the opportunity to apply the skills and knowledge acquired in the Advanced Welding Technology program and gain real world work experience in the industry.

CERTIFICATE OF COMPLETION IN COMMERCIAL DRIVER TRAINING

Available at 9624 Plaza Circle Campus

Individuals portrayed in photos are actual students, graduates, or employees of WTC

Career Opportunities for Commercial Driver Training

Employment of heavy and tractor-trailer truck drivers is projected to grow 4 percent from 2021 to 2031, about as fast as the average for all occupations. About 259,900 openings for heavy and tractor-trailer truck drivers are projected each year, on average, over the decade. The economy depends on truck drivers to transport freight and keep supply chains moving. Trucks transport most of the freight in the United States, and as households and businesses increase their spending, the trucking industry will grow. The number of heavy trucks on the road has not reached prerecession levels despite the increasing demand for freight transportation. Demand for truck drivers is expected to remain strong in the oil and gas industries as more drivers are needed to transport materials to and from extraction sites. (Source D.O.L. *Occupational Outlook Handbook*. 2021-2022 Edition). Drivers of heavy trucks and semi-trucks are usually paid by how many miles they have driven plus bonuses. The per-mile rate varies from employer to employer and may depend on the type of cargo and the experience of the driver. Some long-distance drivers, especially owner–operators, are paid a share of the revenue from shipping.

Labor Market Information (2021 thru 2031 Projections)	**Texas**	**National**
Labor Market Information Employment 2021	203,040	2,094,700
Projected Employment 2021	248,370	259,300
Absolute Change 2021-2031	32,278	2,185,600
Percent Change 2021-2031	22.0%	4.0%
Average Hourly Wage 2021	$23.15	$23.23
Average Openings per year due to Replacement	Not available	Not available
Average Openings per year due to Growth	29,080	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

CERTIFICATE OF COMPLETION IN COMMERCIAL DRIVER TRAINING
COURSES 1-3
200 CLOCK HOURS

Educational Objectives

The Commercial Driver Training offered at WTC College is a 200-hour program, conducted in five weeks for day classes and ten weeks for night classes when offered. The program is designed to prepare individuals.

Entrance Requirements

Applicants who are unable to produce a high school diploma or GED are required to take the Wonderlic Basic Skills Test (WBST), and they must score a minimum of a seventh-grade level on Verbal Skills, Quantitative Skills, and Skills Composite assessments to qualify for enrollment in the program. If the applicant does not achieve the required scores, they may elect to re-take the Wonderlic exam. An applicant may take a second WBST on the same day; however, a substantially different test will be administered. Those wishing to make a third attempt may do so not less than one week after the second attempt. Those wishing to re-take the exam after the third attempt must wait six months before their fourth attempt. If a student does not pass a section, they must re-take only the section they did not pass.

Wonderlic Cut-Off Scores

- Verbal Skills: 211-229 is at seventh grade level
- Quantitative Skills: 227-240 is at seventh grade level
- Skills Composite: 211-229 is at seventh grade level

Prospective students who are unable to earn the cut-off scores will be referred to the GED Coordinator.

The Texas Department of Motor Vehicles has published requirements for applicants interested in obtaining a Commercial Driver's License (CDL):

1. Applicants must be a minimum of 18 years of age.
2. Applicants must be a minimum of 21 years of age for interstate licensing for Texas and New Mexico.
3. Applicants must possess a valid driver's license from the USA for at least six (6) months prior to their admission into the program.
4. Applicants must meet the requirements of the Motor Carrier Federal Regulations, Part 391.11(b)(2) which states that drivers "must read and speak the English language sufficiently to converse with the general public, and to understand traffic signs and signals in English."
5. Applicants "must provide to the State proof of citizenship or lawful permanent residency" per 49 CFR 383.71 with proof such as either of the following:
    a. Social Security card or proof of the number
    b. Another document such as a birth certificate or green card
6. Training is provided with trucks equipped with a ten-speed manual drive transmission.
7. Applicants must meet the requirements for licensure as a commercial driver established by the Texas Department of Transportation Federal Motor Carrier Safety Regulations (FMCSR) and TX DOT.
8. Applicants for a Texas CDL must be a Texas resident for at least six months and have a vehicle registration.
9. Applicants must be a minimum of 21 years of age for interstate licensing. Note: New Mexico residents must be 21 years of age to obtain a CDL from New Mexico.
10. The applicant cannot possess more than one (1) license and cannot have had their driving privilege suspended in any state nor have any unpaid traffic tickets in any state.
11. Applicants testing in Texas from out of state must surrender their auto driver's license and accept a Texas CDL.
12. Applicants must provide to the DMV vehicle insurance and registration on all vehicle(s) registered in their name.

Note: Program costs must be paid by the applicant PRIOR to their enrollment in the CDT program. (Subject to change).

The following is a list of charges for the CDT program that must be paid by the applicant before they will be allowed to enroll in the program. Proof of said requirements must be provided to the WTC Admissions Representative prior to enrollment.

DOT Physical	$45.00
DOT Criminal Background/Urinalysis and drug screen	$45.00
Driving Record (MVR)	$12.00
CDL Permit and License Fee	$86.00
TOTAL	$188.00

1. Background, driving and felony records.
2. Applicants must undergo a background check that includes the driving record. Felony charges will prevent the DMV from issuing a CDL. Candidates should check with an admissions representative for the list of those charges before choosing to take this program.
3. Applicants must possess a clear driving record and background check with the following stipulations:
    a. No DWI or DUI in the past three (3) years
    b. No careless or reckless driving in the past three (3) years
    c. No more than three (3) moving violations in the last two (2) years.
    d. No drug- or alcohol-related misdemeanors during the previous three (3) years
    e. No felony convictions in the last five (5) years
    f. No drug- or alcohol-related felonies within the past ten (10) years
    g. No felony parole or probation within the past two (2) years
    h. No felony charges pending. Students may reapply after their case has been adjudicated.
4. Applicants must undergo and pass a Department of Transportation (DOT) physical that includes vision testing and drug testing. A positive drug test, if deemed valid after review by a designated medical officer, will result in the student's being ineligible for training. Applicants must provide the WTC admissions representative with the results.
5. Applicants must be fingerprinted and have a photo taken.
6. Applicants must release permission to the school to obtain a verifiable Motor Vehicle Report (MVR). For non-residents, or in cases where the school cannot accept MVR's, the applicant must obtain one (1) pre-hire prior to enrollment.

Note: Individuals who have gone through the training for the CDL but were unable to obtain a CDL for failure to produce any of the items or pass any of the tests listed above or if they fail their driver's test will be charged for the entire program. Graduates from this program may transfer their credential towards the Diesel Mechanics AOS degree program for the full 96-hour course exemption.

Graduation Requirement

To receive a Certificate of Completion for this program, a student must maintain a cumulative grade average of 70 and obtain a Commercial Driver License by the final day of the program, depending on driving test scheduling availability. WTC works to ensure students are prepared to challenge the CDL exams through the Texas Department of Safety. The Department allows examinees as many as three chances to test in each of the sections: "The Pre-Trip, The Backing Skills, and The Driving Skills." When students fail to pass an exam, WTC provides additional time for practice and involves instructor(s), trucks, trailers, and fuel costs at no additional charge. The use of time and equipment has strained WTC's resources so that after any CDT student fails three road test exams, they will be required to pay WTC an additional $250.00 to cover the costs involved with practicing maneuvers, the use of equipment, and additional road tests. Students must also meet the general graduation requirements.

Technical Standards and Essential Functions

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. The ability to read and communicate effectively in English.
2. The ability to operate a manual drive transmission and standard automatic.
3. The ability to detect or tell the differences between sounds that vary in pitch and loudness.
4. The ability to sit for long periods of time.
5. The ability to drive at night.
6. The ability to drive long distances and always stay alert.
7. The ability to climb steps.
8. The ability to match or detect differences between colors, including shades of color and brightness.
9. The ability to bend, stretch, twist, or reach with arms extended, and/or legs.
10. The ability to adjust the controls of a vehicle quickly and repeatedly to exact positions.
11. The ability to lift up to 50 pounds

CERTIFICATE OF COMPLETION IN COMMERCIAL DRIVER TRAINING

#	Course	Title	Theory/Lab	% On-Ground/ Online	Clock Hours
1	PCDT 101	Practical Application to Truck Driving	75/5	80/20	80
2	PCDT 102	Basic Vehicle Operations/Range Training	13/27	80/20	40
3	PCDT 103	Advanced Vehicle Operations/Road Training	5/75	80/20	80
Total Hours – Certificate of Completion in Commercial Driver Training			**93/107**		**200**

COMMERCIAL DRIVER TRAINING COURSE DESCRIPTIONS

PCDT 101 PRACTICAL APPLICATIONS TO TRUCK DRIVING 75/5

Upon completion of this course students will be able to explain the rules, regulations, and procedures that govern and regulate the trucking industry. After the first week of training, students will be able to prepare for the required Department of Transportation knowledge tests and receive their driving permits once all endorsement tests have been successfully completed. After the second week of training, students will be able to demonstrate the correct use and inspection of each vehicle control, instrument, and component; describe and/or demonstrate the methods and procedures for correct cargo handling and documentation, accident reporting, logbook entries, and trip planning; describe the culture of the trucking industry to prepare themselves and their families for life on the road; recognition and help to prevent human trafficking; Upon completion of this course, students will be able to inspect a vehicle, complete industry forms, prepare for a trip, recognize and take actions to prevent human trafficking, and become certified under the National Safety Council Professional Truck Driver Defensive Driving Course.

PCDT 102 BASIC VEHICLE OPERATIONS/RANGE TRAINING 13/27

Prerequisite: PCDT 101

Upon completion of this course students will be able to, in a secure environment, become proficient in the basic maneuvers and skills needed to control a tractor-trailer safely and effectively; participate in range instruction that will include hands-on training in vehicle inspection procedures that will prepare students for the CDL Pre-trip Inspection Skills Test; demonstrate maneuvering skills and vehicle controls necessary to pass the CDL Basic Control Skills Test and become successful trainee drivers; Upon completion of this course, students will be able to demonstrate the correct procedures for coupling and uncoupling, backing, and hooking up a tractor-trailer unit to safely dock and pickup and deliver freight as a working driver.

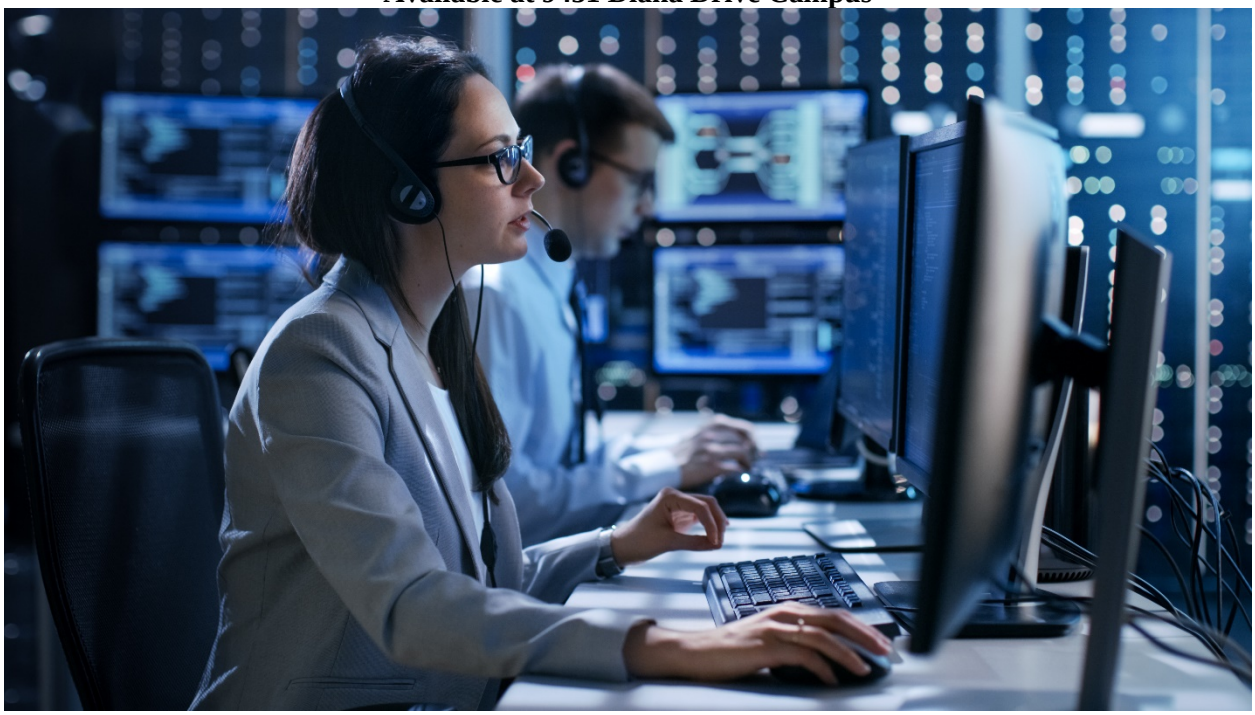
PCDT 103 ADVANCED VEHICLE OPERATIONS/ROAD TRAINING 5/75

Prerequisite: PCDT 102

Upon completion of this course, students will be able to operate a tractor-trailer on city streets and highway environments in regular traffic; through road instruction develop the skills prepare for the CDL Road Test conducted by a state examiner and to safely operate a tractor-trailer on public roadway. Upon completion of this course, students will be able to drive on public roads, develop the skills necessary to safely operate the tractor trailer, and demonstrate the skills needed to challenge and pass the CDL road test. Students must successfully complete this course to become a fully certified driver.

COMPUTER SUPPORT SPECIALIST CERTIFICATION

Available at 9451 Diana Drive Campus



Individuals portrayed in photos are actual students, graduates, or employees of WTC.

Career Opportunities for Computer Support Specialist

Computer support specialists held about 875,700 jobs in 2021. They work in many different industries, including information technology (IT), education, finance, healthcare, and telecommunication. It is projected to grow 15 percent from 2021 to 2031, much faster than the average for all occupations; this increase is expected to result in about 682,800 new jobs over the decade. In addition to new jobs from growth, opportunities arise from the need to replace workers who leave their occupations permanently. About 418,500 openings each year, on average, are projected to come from growth and replacement needs. The median annual wage for this group was $97,430 in May 2021, which was higher than the median annual wage for all occupations of $45,760.

More support services will be needed as organizations upgrade their computer equipment and software. The computer support staff will be needed to respond to the installation and repair requirements of increasingly complex computer equipment and software. Most computer support specialists have full-time work schedules; however, many do not work typical 9-to-5 jobs. Because computer support is important for businesses, support specialists must be available 24 hours a day (Source: D.O.L. Occupational Outlook Handbook, 2018-2019 Edition).

Labor Market Information (2021 thru 2031 Projections)	Texas	National
Labor Market Information Employment 2021	56,400	835,300
Projected Employment 2026	66,644	923,800
Absolute Change 2021-2026	10,277	88,500
Percent Change 2021-2026	18.23%	11%
Average Hourly Wage 2021	$27.84	$32.46
Average Openings per year due to Replacement	418,500	Not available
Average Openings per year due to Growth	645	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

COMPUTER SUPPORT SPECIALIST CERTIFICATION COURSES
1-4
480 CLOCK HOURS
20 SEMESTER CREDIT HOURS

Educational Objectives
The graduate of the Computer Support Specialist Certification program gains knowledge and experience in the following areas: Networking, Cabling, Network and End Point Security, sales, and service. The skill set presented in this program will prepare the graduate for entry-level careers in PC service and repair, Network Support, Desktop support, and Network Security administration. They will be prepared for the following professional certification examinations (CompTIA A+, CompTIA Net+, and CompTIA Sec+) and will take the exams during the training.

Entrance Requirements
To be eligible for any program offered by WTC, a prospective student must present a high school diploma, high school transcript, or equivalency certificate (GED) recognized by the United States Department of Education. The admissions representative will make a copy to keep on file. In the event the applicant is unable to produce a copy, WTC will submit a transcript request on behalf of the applicant to his/her previous high school at no cost to the applicant, or the applicant can submit their own request. The applicant cannot enroll unless he/she produces a high school diploma, high school transcript, or GED.

Classes are taught in English; therefore, an adequate level of proficiency in reading, writing, and speaking the English Language is required. Prospective international students are required to take the Test of Adult Basic Education (TABE) and must achieve a minimum of a 6th grade level in all areas of reading, comprehension, and math. All applicants must be at least 18 years of age or older. However, applicants who have already earned their high school diploma, GED, or high school equivalency may enroll if they have met their state's Compulsory Age requirements, or exemptions.

The computer support specialist certification will require prospective students to take a comprehensive entrance exam to assess basic IT knowledge skills.
Students must bring their laptops with at least the following specifications:

HP ProBook G9
Ryzen 7
32 G/512HD/1TB SSD

Certifications
The experience gained from this program will prepare the student for the following professional certification examinations: CompTIA A+, CompTIA Net+, and CompTIA Sec+.

Graduation Requirements
To graduate from WTC, all students must obtain a minimum of 2.0 cumulative GPA, meet attendance requirements, and pass all required courses. Students graduating from this program are required to achieve (three) of the professional certifications and will receive a certificate upon completion.

Technical Standards and Essential Functions
Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. Must be able to apply critical thinking / problem-solving skills.
2. Must be able to analyze a system's problem and apply principles of computing, networking, and security to identify solutions.
3. Must be able to describe and explain the fundamentals of networking, security, hardware, and software.

COMPUTER SUPPORT SPECIALIST CERTIFICATION

#	Course	Title	Hrs.	Lec/ Lab/ Total	% On Campus/Online	Semester Credit Hours
1	CPMT 1401	A+ Core 1: Computer Infrastructure	120	40/80	100/0	5.0
*2	CPMT 1441	A+ Core 2: Operating Systems and Security	120	40/80	100/0	5.0
3	ITNW 1451	Fundamentals of Networks	120	40/80	100/0	5.0
4	ITSY 1401	Security Fundamentals	120	40/80	100/0	5.0
Total Hours and Credits – Computer Support Specialist Certification			**480**	**160/320**		**20**

NOTE: *Courses with prerequisites are denoted in the course outline with an asterisk (*).*

COMPUTER SUPPORT SPECIALIST CERTIFICATION COURSE DESCRIPTIONS

CPMT 1401 A+ Core 1: Computer Infrastructure 40/80/5.0

This is an entry-level course that will help the students to understand and explain the computer components, how are assembled, install software including an operating system, and install and connect peripherals and network devices. In addition to this, students will use simulation and virtual software to troubleshoot different scenarios. Students will have ample lab time to reinforce learning in each process.

CPMT 1441 A+ Core 2: Operating Systems and Security 40/80/5.0

Upon completion of this course, students will be able to diagnose, analyze and repair a basic computer system. They will develop critical thinking skills to apply troubleshooting techniques and procedures by using simulation software. Students will identify security vulnerabilities in hardware and software and recognize different protocols and terminology used in networking. Students will have ample lab time to reinforce learning in each process.

ITNW 1451 Fundamentals of Networks 40/80/5.0

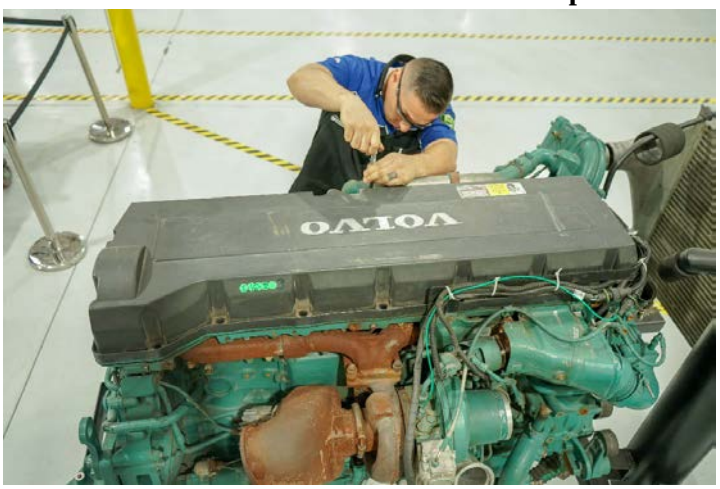
At the end of this course, the student will be able to identify and explain network terminology, the purpose of ports, protocols, hardware, and software that is used in computer networks. The students will demonstrate how to assign IP addresses, install and configure protocols, and different network topologies and how to use the appropriate documentation and diagrams to manage and troubleshoot network connectivity and security. Students will have ample lab time to reinforce learning in each process.

ITSY 1401 Security Fundamentals 40/80/5.0

This course will provide the students with the knowledge and virtual tools necessary to compare the different types of attacks, use some penetration tests to identify sources of computer threats, analyze different scenarios to detect the type of malware, and scan other vulnerabilities. The students will implement secure protocols and apply procedures to secure and monitor audit logs and set system administrator alerts and develop an organizational operating system security plan that provides for periodic reviews of security policies, procedures, authorized users list, and software update patches. Students will have ample lab time to reinforce learning in each process.

CERTIFICATE OF COMPLETION IN DIESEL ADVANCED TECHNOLOGY EDUCATION (DATE)

Available at 9624 Plaza Circle Campus



Individual portrayed in photos are actual students, graduates, or employees of WTC.

Career Opportunities for Diesel Advanced Technology Education (DATE)

Employment of diesel service technicians and mechanics is projected to grow 14 percent from 2016 to 2026, faster than the average for all occupations About 28,500 openings for diesel service technicians and mechanics are projected each year, on average, over the decade. They occasionally repair vehicles on roadsides or at worksites. Most diesel technicians work full time. Overtime is common, as many repair shops extend their service hours during evenings and weekends. As more freight is shipped across the country, additional diesel-powered trucks will be needed to carry freight where trains and pipelines are not available or economical. Additionally, diesel cars and light trucks are becoming more popular, and more diesel technicians will be needed to maintain and repair these vehicles. Diesel engine maintenance and repair is becoming more complex as engines and other components use more electronic systems to control their operation. For example, fuel injection and engine timing systems rely heavily on microprocessors to maximize fuel efficiency and minimize harmful emissions. In most shops, workers often use hand-held or laptop computers to diagnose problems and adjust engine functions.
(Source: D.O.L. Occupational Outlook Handbook, 2021-2031 Edition).

Labor Market Information (2021 thru 2031 Projections)	Texas	National
Labor Market Information Employment 2021	23,950	293,200
Projected Employment 2031	28,500	305,500
Absolute Change 2021-2031	3,100	12,600
Percent Change 2021-2031	19%	4%
Average Hourly Wage 2021	$24.37	$23.41
Average Openings per year due to Replacement	410	Not available
Average Openings per year due to Growth	310	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

Educational Objectives

The objective of the Diesel Advanced Technology Education (DATE) program is to prepare the student for entry-level employment as a Volvo/Mack Truck diesel technician with the basic knowledge and skills to diagnose malfunctions, perform preventive maintenance, and make necessary repairs on the following systems: diesel engines, suspension and steering, air brakes, electrical/electronics, drive train, and heating ventilation and air conditioning. The student who completes the program will be prepared to work as an entry-level diesel service technician in medium/heavy-duty Volvo/Mack Truck dealerships, diesel repair facilities, and fleet maintenance facilities. Students will receive a Certificate of Completion.

Entrance Requirements

To be eligible to participate in the Standalone Volvo/Mack Truck DATE program, the student must meet the following criteria:

- Be a graduate of the WTC Diesel Mechanics program within the last five years.
- Be in good financial standing with WTC.
- Be in good standing with Federal Student Loans (if applicable)
- Submit a written application to attend the Volvo/Mack Truck DATE program.
- Pass the application interview and be accepted into the program.
- Possess a valid driver's license.

Note: After being accepted into the Volvo/Mack Truck DATE program, students who fail to maintain the minimum 3.0 GPA and 97% attendance requirements are subject to being removed from the program.

CDL Course in the Diesel Advanced Technology Education Program

The Texas Department of Motor Vehicles has published requirements for candidates interested in obtaining a Commercial Driver's License (CDL).

1. Candidates who are 18-20 years of age can qualify for an intrastate CDL.
2. Candidates 21 years of age or older may apply for an interstate CDL.
3. Candidates must present a current driver's license from any state; however, candidates must surrender their auto driver's license and accept a Texas CDL.
4. Candidates must undergo a background check. Felony charges will prevent the DMV from issuing a CDL. Candidates should check with an admissions representative for the list of those charges before choosing to take this course.
5. Candidates must present a Social Security identification card.
6. Candidates must produce vehicle insurance and registration on all vehicle(s) all registered in their name.
7. The applicant must undergo a Department of Transportation (DOT) physical.
8. The applicant must have a negative result on the DOT drug test.
9. The applicant must pass a vision exam.
10. The applicant must be fingerprinted and have a photo taken.

Note: Individuals who have gone through the training for the CDL but are unable to obtain a CDL for failure to produce any of the documentation or pass any of the tests listed above will be charged for the entire CDL course. Students pursuing a CDL in the Diesel Advanced Technology Education program are required to undergo a background check before beginning their internship.

Graduation Requirements

Students graduating from this program must pass one professional level medium/heavy truck series exam prior to their scheduled graduation date and must actively participate in all assigned OEM training modules and meet general graduation requirements.

Technical Standards and Essential Functions

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. The ability to detect or tell the differences between sounds that vary in pitch and loudness.
2. The ability to see detail at close range (within a few feet of the observer).
3. The ability to match or detect differences between colors, including shades of color and brightness.
4. The ability to bend, stretch, twist, or reach with the body, arms, and/or legs.
5. The ability to adjust the controls of a machine or a vehicle quickly and repeatedly to exact positions.
6. The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
7. The ability to quickly move the hand, the hand together with an arm, or two hands to grasp, manipulate, or assemble objects.

8. The ability to coordinate two or more limbs while sitting, standing, or lying down.
9. The ability to use abdominal and lower back muscles to support and balance part of the body repeatedly or continuously over time without "giving out" or fatiguing. Work may be done up to six feet off the ground.
10. The ability to lift to 50 lbs.

CERTIFICATE OF COMPLETION IN DIESEL ADVANCED TECHNOLOGY EDUCATION COURSES COURSES 1-12
672 CLOCK HOURS
28.0 SEMESTER CREDIT HOURS

CERTIFICATE OF COMPLETION IN DIESEL ADVANCED TECHNOLOGY EDUCATION

#	Course	Course Title	Hrs.	Theory/ Lab	% On-Ground/ Online	Semester Credit Hours
1	VMVF 201	Vehicle Familiarization	48	24/24	80/20	2.0
2	VMCM 202	Computer Navigation	48	24/24	80/20	2.0
3	VME 203	Volvo/Mack Electronics	48	24/24	80/20	2.0
4	VMAD & SRS 204	Aftertreatment Devices & Secondary Restraint Systems	48	24/24	80/20	2.0
5	VMA 205	Volvo/Mack Advanced Diagnostics I & II	96	40/56	80/20	4.0
6	VMEN 206	Volvo/Mack Engines	48	24/24	80/20	2.0
7	VMH 207	Volvo/Mack HVAC	48	24/24	80/20	2.0
8	VMPT 208	Volvo Mack Powertrains	48	24/24	80/20	2.0
9	VMB 209	Volvo/Mack Brake Systems	48	24/24	80/20	2.0
10	VMSS 210	Volvo/Mack Steering & Suspension	48	24/24	80/20	2.0
11	VMAD 211	Volvo/Mack Advanced Diagnostics III	48	24/24	80/20	2.0
12	CDL 212	CDL Training	96	40/56	00/00	4.0
		Or				
	DTW 212	Basic Cutting & Welding	96	40/56	00/0	4.0
Total Hours and Credits - Certificate of Completion in Diesel Advanced Technology Education			**672**	**320/352/00**		**28.0**

DIESEL ADVANCED TECHNOLOGY EDUCATION COURSE DESCRIPTIONS

VMVF 201 VEHICLE FAMILIARIZATION 24/24/2.0
Upon completion of this course, students will be able to explain Mack and Volvo trucks' OEM information, model identification, and product-specific theory; perform preventive maintenance on Mack and Volvo trucks; practice time management; and explain warranty, safety, and basic shop management; and demonstrate organizational skills. The student can expect 12 hours of homework and OEM factory training modules during this course.

VMCM 202 COMPUTER NAVIGATION 24/24/2.0
Upon completion of this course, students will be able to demonstrate basic computer skills needed to for the Truck Dealer Portal (TDP) to view OEM information based on model and vehicle identification numbers; access all technician support portals within TDP, including Impact, E-media, Electronics Schematics Viewer, VMAC, Mack Electronic Information Systems (EIS), MV Assist, E-Service, and a Learning Management System (LMS). The student can expect 12 hours of homework and OEM training modules during this course.

VME 203 VOLVO/MACK ELECTRONICS 24/24/2.0
Upon completion of this course students will be able to review electricity theory and tell how it is used in a vehicle; explain the differences among voltage, amperage, current and series, parallel, and series-parallel circuit; and read and interpret wiring schematics, identifying proper wiring and harness repairs. The student can expect 12 hours of homework and OEM modules during this course.

VMAD&SRS 204 AFTERTREATMENT DEVICES & SECONDARY RESTRAINT SYSTEMS 24/24/2.0
Upon completion of this course students will be able to describe Diesel Particulate Filter (DPF) systems and secondary restraint systems; explain the workings of the emissions systems on Mack and Volvo trucks and learn how to identify exhaust after treatment system (EATS) components and perform correct troubleshooting procedure; and apply the recommended Mack and Volvo truck procedures to diagnose and repair aftertreatment devices, the regeneration of diesel particulate filter (DPF), and the selective catalyst reduction (SCR) systems. The student can expect 12 hours of homework and OEM training modules during this course.

VMA 205 VOLVO/MACK ADVANCED DIAGNOSTICS I & II 40/56/4.0
Upon completion of this course students will be able to apply general and advanced diagnostic troubleshooting procedures, techniques; identify fault codes using proprietary TDP and PTT diagnostic software; use HD-OBD, J1939, and J1587/1708 data link systems and multiplexing, oscilloscopes to test injectors, cam and crank sensing timing, and data link troubleshooting; follow the recommended Mack and Volvo Truck procedures for diagnostic troubleshooting, identify fault codes using proprietary diagnostic software, diagnosis J1939, and J1587/1708 data link, and multiplexing systems; and use oscilloscopes to troubleshoot electrical faults.

VMEN 206 VOLVO/MACK ENGINE 40/24/2.0
Upon completion of this course students will be able to identify and explain the components of a Volvo D- series and/or Mack MP-series engine; disassemble, inspect, and overhaul a Volvo or Mack engine; follow the recommended Mack Truck and Volvo Truck procedures and use special tools for engine overhaul, parts failure analysis, and practice correct repair parts selection. The student can expect 12 hours of homework during this course. This course includes OEM training modules.

VMH 207 VOLVO/MACK HVAC 40/24/2.0
Upon completion of this course students will be able to identify Mack and Volvo HVAC component location and function; operate the cab and sleeper HVAC controls; service, diagnose, and repair HVAC systems, using a/c recovery/recycling equipment; and follow the recommended Mack Truck and Volvo Truck procedures using special tools for HVAC system diagnosis and repair. The student can expect 12 hours of homework and OEM training modules in this course.

VMPT 208 VOLVO/MACK POWERTRAINS 40/24/2.0
Upon completion of this course students will be able to diagnose and repair Mack and Volvo I-shift and M-drive transmissions; follow the recommended Mack Truck and Volvo Truck procedures using special tools for transmission and differential diagnosis and repair. Students can expect 12 hours of homework and OEM training modules during this course.

VMB 209 VOLVO/MACK BRAKE SYSTEMS 24/24/2.0
Upon completion of the course students will be able to describe Mack and Volvo mechanical and electronic braking systems and details of the air braking systems; service, diagnose, repair, and adjust the vehicle's brakes; identify the type of ABS system in use on an individual truck; and test, repair, or replace sensor and ABS controls. The student can expect 12 hours of homework and OEM training modules during this course.

VMSS 210 VOLVO/MACK STEERING & SUSPENSION 24/24/2.0
Upon completion of this course students will be able to explain Mack and Volvo steering and suspension systems; service and adjust air ride suspension systems and steel leaf spring systems; identify and diagnose steering and stability system issues and correct alignment angles; identify tire wear patterns and explain how steering and

suspension systems affect tires; and follow the recommended Mack and Volvo Truck procedures using special tools for steering and suspension systems diagnostics and repairs, alignment of tires and correction of tire-wear problems. The student can expect 12 hours of homework and OEM training modules during this course.

VMAD 211 VOLVO/MACK ADVANCED DIAGNOSTICS III 24/24/2.0

Upon completion of this course students will be able to explain general diagnostic procedures and techniques; apply advanced diagnostics to identify fault codes using Mack and Volvo Trucks proprietary software; demonstrate the advanced use of TDP and PTT with HD-OBD, ISO, J1939, J1587/1708 data link systems and multiplexing; practice advanced use of an oscilloscope on injectors, cam and crank sensing timing, and data links; follow the recommended Mack and Volvo truck procedures using special tools for diagnostic, procedures; and use techniques for correction of vehicle fault codes. The student can expect 12 hours of homework and OEM training modules during this course.

CDL 212 OPTION #1 CDL TRAINING 40/56/4.0

Upon completion of this course students will be able to demonstrate entry-level training in commercial vehicle operation and driving with classroom and behind-the-wheel instruction; follow laws relating to intrastate commercial motor vehicle operations; perform pre-trip inspections; explain the principles of vehicle safety, and operational equipment; place a commercial motor vehicle in safe operation; use controls and emergency equipment; inspect mechanical components; demonstrate defensive driving techniques; explain the role of documentation, DOT logbook, and reporting; describe ways to prevent accidents and fires; and demonstrate basic driving maneuvers. Successful completion of this class prepares students to pass the Commercial Driver's License Class B (CDL) skill examination.

DTBCW 204 OPTION #2 BASIC CUTTING AND WELDING 40/56/4.0

Upon completion of this course students will be able to set up the oxyacetylene process for cutting and welding; and demonstrate the basic techniques for basic fillet welds; demonstrate metal cutting and horizontal welding; and and follow welding safety precautions for shop and personal safety.

Certificate of Completion Lineworker

Available at the Plaza Campus

Individuals portrayed in photos are actual students, graduates, or employees of WTC.

CAREER OPPORTUNITIES IN LINEWORKER

Electrical power-line installers and repairers install and maintain the power grid the network of power lines that moves electricity from generating plants to customers. They routinely work with high-voltage electricity, which requires extreme caution. The electrical current can range from hundreds of thousands of volts for long-distance transmission lines that make up the power grid to less than 10,000 volts for distribution lines that supply electricity to homes and businesses. Line workers who maintain the interstate power grid work in crews that travel to locations throughout a large region to service transmission lines and towers. Workers employed by local utilities work mainly with lower voltage distribution lines, maintaining equipment such as transformers, voltage regulators, and switches.

Overall employment of line installers and repairers is projected to grow 6 percent from 2021 to 2031, about as fast as the average for all occupations. About 23,500 openings for line installers and repairers are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire. Employment of electrical power-line installers and repairers is expected to grow, largely due to increasing electrical grid needs. With each new housing development or business complex, new electric power lines are installed and will require maintenance. In addition, the interstate power grid will continue to become more complex to ensure reliability. **https://www.bls.gov/ooh/installation-maintenance-and-repair/line-installers-and-repairers.htm#tab-1**

Labor Market Information (2021 thru 2031 Projections)	Texas	National
Labor Market Information Employment 2021	119,510	230,400
Projected Employment 2021	2,390	13,824
Percent Change 2021-2031	2%	6%
Average Hourly Wage 2021	$35.83	$39.79
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

CERTIFICATE OF COMPLETION FOR LINEWORKER
COURSES 1-9 504 CLOCK HOURS
21.0 SEMESTER CREDIT HOURS

EDUCATIONAL OBJECTIVES

The graduate of this program will gain valuable knowledge in installing and repairing electrical devices, understanding of basic electricity and electronics, pole climbing techniques, mathematics, first aid, CPR, electrical safety, use of hand tools. The graduate will also gain valuable hands-on experience in a diverse set of technical areas.

CERTIFICATIONS:

The experience gained from this program will prepare the student for the following professional certification examinations: First Aid Certification, CPR certification, and OSHA 10-Hour ET&D.
To include course specific certifications: Pole Climbing Certification, Pole-Top Rescue Certification, and Enclosed Space Rescue Certification

GRADUATION REQUIREMENT: Students graduating from this program are required to achieve all three professional certifications and all three course specific certifications and must meet general graduation requirements.

TECHNICAL STANDARDS AND ESSENTIAL FUNCTIONS

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. Maximum of 15 students allowed in a classroom or lab area.
2. Must pass a background check through state of residence.
3. Must pass a 10-panel drug screening.
4. Must meet a 300 lbs. weight limit, to include equipment and tools.
5. Must be able to see details at close range (within a few feet of the observer).
6. Must possess sufficient finger dexterity and steadiness to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble objects.
7. Must possess sufficient manual dexterity and steadiness to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
8. Must be able to perform physical activities that require considerable use of your arms and legs moving your whole body, such as climbing, lifting, balancing, walking, stopping, and handling of materials.
9. Must be able to operate computers and computer systems (including hardware and software), setup functions, enter data, or process information.
10. Must possess the ability to utilize computers and perform basic computer functions with programs in the Microsoft Suite, Word, Outlook, and Excel.

CERTIFICATE OF COMPLETION FOR LINEWORKER

#	Course	Title	Hrs.	Lec/Lab	Semester Credit Hours
1	ATM 131	Mathematics for Electrical Lineman	48	48/0	3.0
2	FCR 112	Competent First Responder	16	16/0	1.0
3	ELI 140	Electrical Lineman Introduction	90	10/80	3.0
4	ELM 141	Electrical Lineman I	90	10/80	3.0
5	ELE 131	Basic Electricity and Electronics	48	48/0	3.0
6	ELM 142	Electrical Lineman II	90	10/80	3.0
7	ELM 143	Electrical Lineman III	90	10/80	3.0
8	ELO 110	OSHA 10-Hour ET&D	16	16/0	1.0
9	EP 110	Employment Preparation	16	16/0	1.0
Total Hours and Credits – CERTIFICATE OF COMPLETION FC LINEWORKER			**504**	**184/320**	**21.0**

NOTE: The sequential order of classes may differ from that included in the program outline. Courses with prerequisites are denoted in the course outline with an asterisk (*).

CERTIFICATE OF COMPLETION FOR LINEWORKER

ATM 131 Mathematics for Electrical Lineman (48/00/3.0)
Analysis and problem solving of technical problems using techniques of basic arithmetic and gradually incorporates algebraic material.

FCR 112 Competent First Responder (16/00/1.0)
Students learn to safely perform as a competent first responder in an environment that requires use of basic first aid, and basic cardiopulmonary resuscitation (CPR). Successful completion of this course results in a nationally recognized first aid certification and a nationally recognized CPR certification.

ELI 140 Electrical Lineman Introduction (10/80/3.0)
Students will learn proper methods for using their climbing gear and hand tools and must successfully complete climbing competency I. Students must show comprehension of the use of climbing gear and proper techniques for working from wood poles. Ascending, descending, and rotating at lower elevations of wood poles.

ELM 141 Electrical Lineman I (10/80/3.0)
An introduction to transmission, sub-transmission, and distribution components used to construct lines and troubleshooting those components, to include the use of hot sticks and must successfully complete climbing competency II. Student must show comprehension of positioning and climbing techniques for working from wood poles. Ascending, descending, and rotating at higher elevations, enhancing pole-top work skills. Additional training on chainsaw safety, maintenance and use will be provided to the students, and must successfully complete chainsaw use competency.

ELE 131 Basic Electricity and Electronics (48/00/3.0)
An introduction to electricity theory and practice, including electron theory, Ohm s law, series and parallel circuits, direct and alternating currents, magnetism, transformers, and practical applications.

ELM 142 Electrical Lineman II (10/80/3.0)
Theory of power generation and distribution with emphasis on three phase systems to include transformers, voltage regulators, surge arrestors and must successfully complete climbing competency III. Student must show ability to perform work-related tasks at pole-top.

ELM 143 Electrical Lineman III (10/80/3.0)
Practice in the installation of electrical power lines including transformers, voltage regulators, and surge arrestors. Also advanced hot sticking procedures, troubleshooting, underground systems procedures, and pole-top rescue. Pole-top and enclosed-space rescue competencies must be successfully completed.

ELO 110 OSHA 10-Hour ET&D (16/00/1.0)
This certificate is earned upon successful completion of certified third-party OSHA trainer. Each successful participant will earn an OSHA Electrical Transmission and Distribution 10-hour card.

EP 110 Employment Preparation (16/00/1.0)
This course will be spent in the classroom working on the skills needed to be successful in the workplace. Students will work on their interpersonal skills, to include soft skills and customer service skills. Students will learn how to prepare a functional resume and cover letter. Students will also work on their interview skills, and how to dress appropriately for an interview.

Certificate of Completion FCA MOPAR Automotive

Available at the Plaza Campus

Individuals portrayed in photos are actual students, graduates, or employees of Western Tech

Career Opportunities in the Automotive Industry

Employment of automotive service technicians and mechanics is projected to show little or no change from 2021 to 2031. Roughly 73,300 openings for automotive service technicians and mechanics are projected each year, on average, over the decade. Most of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire. The number of vehicles in use continues to rise, and more entry-level service technicians will be needed to perform basic maintenance and repair, such as replacing brake pads and changing oil. New technologies, however, such as electric vehicles, may limit future demand for automotive service technicians and mechanics because they will be more reliable and thus require less maintenance and repair. Of these workers, those who have completed formal postsecondary training programs or achieved ASE certification should enjoy the best job prospects. (Source: D.O.L. Occupational Outlook Handbook, 2021-2022).

Labor Market Information (2021 thru 2031 Projections)	**Texas**	**National**
Labor Market Information Employment 2021	51,540	701,100
Projected Employment 2022	60,680	731,500
Absolute Change 2012-2022	9,140	60,400
Percent Change 2012-2022	17.70%	8.60%
Average Hourly Wage 2021	$18.85	$19.22
Average Openings per year due to Replacement	1,305	Not available
Average Openings per year due to Growth	915	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

Flat Chrysler Automotive (FCA), MOPAR CAP Local School Training

There is great demand for *high quality and skilled* automotive technicians at FCA Dealerships. This demand has outpaced the number of technicians the regular OEM programs can produce and FCA (Fiat Chrysler Automobiles) is the first to look at high quality colleges to help their local dealers find the technicians they need. The foundational training that you receive in class paired with the factory FCA training sets you apart from the other applicants in the industry when applying at an FCA dealer. The fact that you will be able to show success and completion in actual dealership OEM training demonstrates your ability to learn and a solid baseline of technical knowledge. These credentials make you employable, more so than just a college education alone. Together they prepare you for success

right now and into the future. Chrysler modules are a ***required*** part of the program, and accounts for 30% of the student's grade. Successful graduates upon leaving the program who has completed Levels 0, 1 and 2 can then begin working at an FCA dealership *at a Level 2 and* complete the warranty work that comes into the Dealership.

The Service-to-Service Program

You Served Us. Now, Let Us Serve You: Western Technical College has partnered with Mopar CAP to provide soldiers transitioning out of the military in the Ft Bliss area an opportunity to obtain skills needed to work at Stellantis dealerships on some of the best brands in the industry – Chrysler, Dodge, Fiat, Jeep and Ram.

Certifications: Upon completion of this program, you will earn a Certificate of Completion and graduate as a Level 2 Technician with Mopar CAP.

Fast Track: We're driving futures forward….faster! You'll be graduating before you know it, allowing you to start working and doing what you love in only 12 weeks!

Learn From the Best: Western Tech takes great pride in training. Our instructors not only have ASE certifications but have gone through specialized training directly with Mopar. Your training will consist of extensive 50-hour weeks that combine classroom theory and Real-World hands-on training directly on Mopar equipment.

Hit the Ground Working: Be work ready! For 80 years Mopar has been the parts, service and customer care division of the former Chrysler Corporation, now Stellantis. Mopar services parts for Dodge, Chrysler, Jeep, Ram and Fiat and has 1,100 Mopar Express Lane Service Drivers across the country. Mopar Cap has 2,500 dealerships nationwide. Before you graduate, you will have the opportunity to start interviewing and working with a dealership in your interested area.

Experienced Instructional Staff

Our instructors are required to have recent and sufficient field experience and training before joining the Western Tech team. They share insights with our students that might otherwise take years to learn. We continually update our instructors with seminars and workshops to keep them abreast of new technology. In turn, they pass this knowledge on to our students. All Western Tech's automotive instructors are required to be ASE and Mopar Certified. A large percentage of the instructional staff is Master Certified in all areas of the automobile.

Technical Standards and Essential Functions

Western Tech's FCA Mopar Automotive Certificate program has established technical standards and essential functions for the program as listed below. The ability to meet these standards and essential functions with or without reasonable accommodation is required to complete the program satisfactorily.

1. The ability to understand course materials and maintain a grade/performance level that meets the established academic requirements.
2. The ability to always maintain a professional demeanor and interact professionally with fellow students, internship site employees and clientele, administration, and faculty.
3. The ability to adhere to a professional dress code acceptable to the profession and as set by Western Tech.
4. The ability to listen, understand, and communicate ideas presented through spoken words and sentences.
5. The ability to detect or tell the differences between sounds that vary in pitch and loudness.
6. The ability to see detail at close range (within a few feet of the observer).
7. The ability to match or detect differences between colors, including shades of color and brightness.
8. The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
9. The ability to adjust the controls of a machine or a vehicle quickly and repeatedly to exact positions.
10. The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
11. The ability to quickly move the hand, the hand together with the arm, or two hands to grasp, manipulate, or assemble objects.
12. The ability to coordinate two or more limbs while sitting, standing, or lying down.
13. The ability to use abdominal and lower back muscles to support part of the body repeatedly or continuously over time without "giving out" or fatiguing.
14. The ability to lift to 50 lbs.
15. The ability to utilize computers and perform basic computer functions with programs such as Word, Outlook, and Excel.
16. The ability to utilize E-books.

CERTIFICATE OF COMPLETION IN FCA-MOPAR AUTOMOTIVE
COURSES 1-7
600 CLOCK HOURS
24 SEMESTER CREDIT UNITS (TWC & THECB)
24 SEMESTER CREDIT HOURS (ACCSC)

Educational Objectives

The objective of the FCA-Mopar Automotive Certification program is to prepare the student to become an entry-level Mopar technician by providing the skills and knowledge to repair today's highly technical Mopar vehicles. The student will be trained in Mopar-specific diagnosis, service, and repair. Graduates of this program will be prepared for entry-level positions as technicians at FCA and Mopar dealerships.

Entrance Requirements:

Military Requirements

Must be within 180 days of ETS (Estimated Time of Separation) and have the Fort Bliss/ Army required appointments and classes complete.
Must get approval from their chain of command through Fort Bliss required forms.

- Agreement for Army Career Skills Program Individual Internship/Approved DoD Skill Bridge Program. (Must be completed by their official legal team)
- Soldier Participation Memorandum-Army Career Skills Program (must be signed by their company commander, battalion commander, and approved TAP (Transition Assistance Program) coordinator.

Driver's License Requirement

To be accepted into the FCA Mopar Automotive Certificate program, in addition to the general admissions requirements and enrollment procedure, a prospective student must possess a valid driver's license before being allowed to start class.

MOPAR pre-entrance exam and interview
Must complete the pre-entrance exam score will be used in conjunction with the face-to-face interview. The interview will be conducted by selected leadership from the director of the program. Regardless of exam score the final decision will be based on the recommendation of those conducting the interview.

Note: The sequential order of classes may differ from that shown in the program outline below.

Graduation Requirements

Students must successfully complete all assigned course work with a GPA of 2.0 or higher, maintain an attendance rate of 85% or greater, and complete all required MOPAR modules before they are allowed to graduate and receive their certificate.

Certificate of Completion in FCA-Mopar Automotive

#	COURSE NUMBERS FOR AUTOMOTIVE TECHNOLOGY	AUTOMOTIVE TECHNOLOGY COURSE TITLE	HOURS	THEORY/ LAB	PERCENTAGE ON CAMPUS/ ONLINE	SEMESTER CREDIT UNITS
1	FCA ELECT 101	Automotive Electronics	150	30 /120	100/0	6.0
2	FCA G&D ENG 102	Gas & Diesel Engines Fundamentals	150	30 / 120	100/0	6.0
3	FCA BAC 103	Basic Automotive Air Conditioning	50	15/ 35	100/0	2.0
4	FCA BDT 104	Basic Drive Trains	50	15 / 35	100/0	2.0
5	FCA BSS 105	Basic Suspension & Steering	50	15 / 35	100/0	2.0
6	FCA AD 106	Automotive Diagnosis	50	15 / 35	100/0	2.0
7	FCA ATT 107	Automatic Transmissions & Transaxle	100	30/70	100/0	4.0
Total Hours- FCA – Mopar Automotive Certificate			**600**	**150/450**	**100/0**	**24.0**

FCA MOPAR AUTOMOTICE COURSE DESCRIPTIONS

FCA ELECT 101 AUTOMOTIVE ELECTRONICS 30/120/6.0
Upon completion of this course, students will be able to check basic electrical circuits with a test light and digital multi-meter and determine needed repairs; check supply voltage and voltage drop using a digital multi-meter (DVOM) and determine necessary repairs; measure and diagnose key-off battery drain; locate shorts, grounds, opens, and resistance problems in electrical circuits and determine necessary repairs; perform battery and starter tests; use wiring diagrams to diagnose starting and charging systems; inspect, test, and diagnose circuits and systems; diagnose failure of computerized engine controls with and without stored diagnostic trouble codes and determine needed repairs; inspect, test, adjust, and replace computerized engine control system sensors, actuators, and circuits; diagnose drivability and emission problems on vehicles with electronic ignition (distributor-less) systems and determine needed repair; diagnose hot or cold no starting, hard starting, incorrect idle speed, hesitation, misfire, power loss, and stalling and emission problems on computer-controlled vehicles; name the precautions that must be taken when

working with or around high voltage electrical systems; describe how regenerative braking works; explain how the operation of accessories and auxiliary systems in a hybrid electric vehicle differ from those in an internal combustion engine vehicle and a battery electric vehicle; explain why high voltage is needed in assist-type vehicles; and demonstrate entry-level competence with the skills related to the courses and Mopar modules.

FCA G & D ENG 102 GAS & DIESEL ENGINE FUNDAMENTALS 30/120/6.0

Upon completion of this course, students will be able to inspect, test, and repair cooling systems; mix coolant for gasoline and diesel engines using the correct proportions of water, antifreeze, and supplemental cooling system additives to meet manufacturer recommendations and ambient temperature requirements; inspect, test, and repair lubrication systems; inspect, test, and repair intake and exhaust systems; inspect, test, and repair engine-related electrical systems; inspect and test valve springs for squareness, pressure, and free-height comparison; adjust valves (mechanical or hydraulic lifters); remove and inspect cylinder heads for cracks and check gasket surface areas for warpage, leaks, and passage conditions; inspect crankshafts for surface cracks and journal damage; inspect pistons, rings, and wrist pins for wear and damage; inspect, repair, or replace fuel systems; prime and bleed a fuel system; diagnose, check, and repair or replace a primer pump; inspect, diagnose, test, adjust, repair and/or replace fuel injectors; diagnose, test, and service diesel emission systems; and demonstrate entry-level competency of the skills related to the courses and Mopar modules in this session.

FCA BAC 103 BASIC AUTOMOTIVE AIR CONDITIONING 15/35/2.0

Upon completion of this course, students will be able to conduct a performance test of the A/C system and determine needed repairs; perform a leak test on A/C system and determine needed repairs; diagnose A/C system problems that cause the protection devices (pressure thermal and PCM) to interrupt system operation and determine needed repairs; inspect, test, and replace A/C compressors, clutch components, or assemblies; inspect evaporator housing water drain and repair as needed; diagnose failures in the electrical controls of heating and A/C systems and determine needed repair; demonstrate entry-level competency with the skills related to the course and Mopar modules in this course.

FCA BDT 109 BASIC DRIVE TRAIN 15/35/2.0

Upon completion of this course, students will be able to diagnose clutch noise, binding, slippage, pulsation, and chatter problems; diagnose transmission noise, hard shifting, jumping out of gear, and fluid leakage and determine the necessary repairs; disassemble, clean, and reassemble transmission components; diagnose front-wheel drive (FWD) and rear-wheel drive (RWD) shaft and universal/ constant velocity (CV) joint noise and vibration problems and determine the necessary repairs; inspect, adjust, and repair or replace the hydraulic slave and master cylinders, lines, and hoses; and demonstrate entry-level competency of the skills related to the course and Mopar modules in this course.

FCA BSS 105 BASIC SUSPENSION AND STEERING 15/35/2.0

Upon completion of this course, students will be able to remove, inspect, and replace steering and suspension components; inspect, remove, and replace shock absorbers and MacPherson struts; balance wheel and tire assembly (static and dynamic) utilizing the latest computerized balancing machines; perform a wheel alignment; and demonstrate entry-level competency of the skills related to the course and Mopar modules in this course.

FCA AD 106 AUTOMOTIVE DIAGNOSIS 15/35/2.0

Upon completion of this course, students will be able to use scan tools to retrieve diagnostic trouble codes (DTC) and determine necessary repairs; perform engine vacuum tests and determine necessary repairs; inspect and test ignition systems; use diagnostic equipment to diagnose engine mechanical, electrical, and fuel and emission problems and determine needed action; diagnose no starting, drivability, and emission problems and determine needed repairs; and demonstrate entry-level competency of the skills related to the courses and Mopar modules in this course.

FCA ATT 107 AUTOMATIC TRANSMISSION AND TRANSAXLES 30/70/4.0

Upon completion of this course, students will be able to perform lock-up torque converter system tests and determine needed repairs; inspect, adjust, or replace manual shift valves and throttle linkages or cables and check gear-select indicators (as applicable); explain how Pascal's law applies to the operation of automatic transmissions; check torque converter stator clutch operation and measure torque converter endplay; remove, disassemble, clean, inspect, reassemble, and reinstall transmissions and transaxles; inspect, test, and replace electrical/ electronic transmissions and transaxles; retrieve trouble codes from common electronically controlled automatic transmissions switches and sensors; diagnose and recondition electronic automatic transmissions/transaxles; and demonstrate entry-level competency of the skills related to the courses and Mopar modules in this course.

CERTIFICATE OF COMPLETION IN MEDICAL BILLING AND CODING

Offered 100% online

Individuals portrayed in photos are actual students, graduates, or employees of WTC.

Career Opportunities for Medical Billing and Coding

Medical records and health information technicians held about 186,400 jobs in 2021. Medical records and health information technicians, commonly referred to as health information technicians, organize and manage health information data by ensuring that it maintains its quality, accuracy, accessibility, and security in both paper files and electronic systems. They use various classification systems to code and categorize patient information for insurance reimbursement purposes, for databases and registries, and to maintain patients' medical and treatment histories. Employment of health information technicians is projected to grow 7 percent from 2021 to 2031, much faster than the average for all occupations. (Source: D.O.L. *Occupational Outlook Handbook*, 2021-2031 Edition). Medical billers and coders will typically obtain, record, and update personal and financial information, schedule appointments, and verify and coordinate insurance. They obtain revenue by recording and collecting patient charges and acquiring pre-authorization for procedures. (Source: D.O.L. Occupational Outlook Handbook, 2021-2031 https://www.bls.gov/ooh/healthcare/medical-records-and-health-information-technicians.htm)

Labor Market Information (2021 thru 2031 Projections)	Texas	National
Labor Market Information Employment 2021	42,079	186,400
Projected Employment 2031	47,828	198,700
Absolute Change 2021-2031	5,749	12,300
Percent Change 2021-2031	13.66%	7%
Average Hourly Wage 2021	$14.76	$22.43
Average Openings per year due to Replacement	Not available	Not available
Average Openings per year due to Growth	2,763	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

CERTIFICATE OF COMPLETION IN MEDICAL BILLING AND CODING COURSES

COURSES 1-11
1060 CLOCK HOURS
41.0 SEMESTER CREDIT HOURS

Educational Objectives

The Medical Billing and Coding program is designed to prepare the individual for entry-level employment as a

records coder, claims examiner, medical biller, or related occupation in various settings: private healthcare practices, clinics, hospitals, government agencies, skilled nursing facilities, insurance companies, consulting firms, and other healthcare facilities. The program teaches students how to evaluate coding and billing practices and provides tools for developing compliance programs that will help minimize the risk of investigation.

The program balances knowledge of medical science, technical skills, and coding experience with assessment evaluations by professional coding specialists who care about a student's success. The practical approach takes students through a careful step-by-step study of what medical coders and billers need to get the job done right.

Certification and Examination

The following certification examinations are offered:
National Healthcare Association (NHA) • NHA, CEHRS (Certified Electronic Health Records Specialist)
American Academy of Professional Coders (AAPC) • AAPC, CPC-A (Professional Coder Apprentice)
American Health Information Management Association (AHIMA) • AHIMA, CCS-P (Certified Coding Specialist Physician)

Graduation Requirement

Students graduating from this program must meet general graduation requirements.

Technical Standards and Essential Functions

Students entering this program must be able to meet the following standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. Understand course materials and maintain a certain grade/performance level that meets the established academic requirements.
2. The ability to listen, understand, and communicate ideas presented through spoken words and sentences.
3. Satisfactory visual acuity for reading and documenting patient charts and creating patient accounts.
4. The ability to tolerate sitting and/or standing for extended periods of time without a break.
5. Students will use confidentiality standards in accordance with professional health care environments about other students and/or internship patients.
6. Students will not violate professional, ethical, and safety standards.
7. Utilize computers and perform basic computer functions with programs such as Word, Outlook, and Excel.

CERTIFICATE OF COMPLETION IN MEDICAL BILLING AND CODING

#	Course	Course Title	Hrs.	Theory/ Lab	% On-Ground/	Semester Credit Hours
1	FOU101	Foundations	48	26/22	0/100	2.0
2	MTAP 1401	Medical Terminology / Anatomy & Physiology	100	15/85	0/100	3.5
3	MTAP1402	Medical Terminology / Anatomy & Physiology	100	15/85	0/100	3.5
4	ICPT 1401	Introductions to Coding Principles & Theory	100	45/55	0/100	4.5
5	ICPT1402	Fundamentals of Coding Principles & Theory	100	45/55	0/100	4.5
6	HC1401	Health Claims	100	15/85	0/100	3.5
7	HC1402	Health Claims II	100	15/85	0/100	3.5
8	ACPT1402	Advanced Coding Principles & Theory II	100	15/85	0/100	3.5
9	DC1401	Diagnostic Coding	100	15/85	0/100	3.5
10	AACPT1403	Advanced Coding Principles & Theory III	100	15/85	0/100	3.5

11	MRC 1301	Medical Record Coder	80	30/50	0/100	3.5
12	CD 100	Career Development	32	32/0	0/100	2.0
Total Hours and Credits – Certificate of Completion in Medical Billing & Coding			**1060**	**283/777**		**41.0**

Program courses for the Medical Billing and Coding curriculum are designed in a sequential manner. Each course of the curriculum is ordered such that the subsequent material is based on skills acquired in prerequisite courses.

MEDICAL BILLING AND CODING COURSE DESCRIPTIONS

FOU 101 FOUNDATIONS 26/22/2.0

Upon completion of this course, the student will be able to identify and state individual educational goals and formulate specific plans to work towards the goals; design and implement a personal time management plan; identify preferred learning style and employ strategies for effective reading and studying; describe and employ critical thinking and creative thinking skills; describe effective listening, note taking, memory retention, writing skills, communication skills, and methods for improving these skills; describe and use various methods of exam preparation; explain test anxiety and list strategies for reducing it; describe the interview process and strategies for successful interviewing; create a resume and a cover letter; perform basic computer, email, and internet operations; create simple word documents; design and deliver a simple presentation; and use the learning management system (Canvas) that will be used for the distance education platform.

MTAP 1401 MEDICAL TERMINOLOGY / ANATOMY & PHYSIOLOGY 15/85/3.5

This course will acquaint the students with the meaning and pronunciation of medical terms, including prefixes, root words, and suffixes. The students learn provide abbreviations as well as disease, physiology, and treatment methodology- The students will also learn the names, pronunciation and locations of all body systems and their principal parts. The major instructional units will stress the following body systems: Introduction to Healthcare Terminology, Body Structures and Directional Terminology, Musculoskeletal System and Connective Tissue, Skin and Subcutaneous Tissue and the Digestive System.

Upon completion of this course, students will be able to define, interpret, and use the medical terminology in. a variety of allied health fields. Students will develop a critical understanding of Introduction to Healthcare Terminology, Body Structures and Directional Terminology, understand the structure of the Musculoskeletal System and Connective Tissue, Skin and Subcutaneous Tissue and the Digestive System as a prerequisite to comprehending its function, and define and know the possible causes of disease.

MTAP 1402 MEDICAL TERMINOLOGY / ANATOMY & PHYSIOLOGY 15/85/3.5

This course will continue to acquaint the students with the meaning and pronunciation of medical terms, including prefixes, root words, and suffixes. The students learn provide abbreviations as well as disease, physiology, and treatment methodology- The students will also learn the names, pronunciation and locations of all body systems and their principal parts. The major instructional units will stress the following body systems: Genitourinary, Obstetric, Prenatal and Congenital Conditions, Blood, Blood-forming Organs, and the Immune Mechanism, Circulatory, Respiratory, nervous, Mental and Behavioral Disorders, Eye and Adnexa, Ear, and Mastoid process, Endocrine and Nutritional and Metabolic Disease.

Upon completion of this course, students will be able to define, interpret, and use the medical terminology in a variety of allied health fields- Students will develop a critical understanding of the structure of the Digestive, Urinary, Nervous, Cardiovascular, Blood, Respiratory' Lymphatic, Musculoskeletal, Endocrine, Female and Male organs as a prerequisite to comprehending its function, and define and know the possible causes of disease.

ICPT 1401 INTRODUCTION TO CODING PRINCIPLES & THEORY 45/55/4.5

Introduction to the basic principles of anatomy and physiology and to be introduced to ICD-10-CM (International Classification of Disease), 10th Revision, CPT (Current Procedural Terminology) Coding System Structure of the two levels of CPT and HCPCS (Health Care Procedural Coding System) basic coding rules and conventions. Fundamentals of medical billing and coding to provide the importance of written communication skills, accounts receivable, management, supportive documentation, and customer service. Introduction into the use of different types of medical billing forms will be covered as well as insurance terminology, health insurance and medical billing. Students will also learn cost containment programs, traditional insurance. A requirement to create a proper APA formatted research paper will be covered during this course.

Upon completion of this course, basic principles of anatomy and physiology and to be introduced to ICD-10-CM (International Classification of Disease), 10th Revision, CPT (Current Procedural Terminology) Coding System Structure of the two levels of CPT and HCPCS (Health Care Procedural Coding System) basic coding rules and conventions. Research and apply knowledge of insurance rules and insurance plans. They will understand and comply with managed care plan coverage and the benefits and eligibility insurance plans. They will understand and comply with managed care plan coverage and the benefits and eligibility requirements of each.

ICPT 1402 INTRODUCTION TO CODING PRINCIPLES & THEORY 45/55/4.5

The major theme of this course is the theoretical aspect of medical record coding, continuing basic coding rules and conventions, sequencing codes, and other coding principles Understanding the sequencing and linking requirements, becoming familiar with the terminology in the procedure and diagnostic coding systems to use them efficiently and provide accurate descriptions of services rendered and maximize payment from insurance companies. The practical application is designed to provide the student the practical experience necessary to understand and code CPT. Students will continue their education in basic principles of insurance as well as in anatomy and physiology during this phase.

Upon completion of this course, students will be able to apply coding conventions when assigning ICD-10-CM Expert. They will apply coding conventions when assigning Medicare, Medicaid, Military Carriers, Workers Comp and Disability Insurance, assign CPT Level I Codes and Modifiers, and assign Level 11, National Codes and Modifiers.

HC 1401 HEALTH CLAIMS 15/85/3.5

This course is designed to provide the student with the understanding and practical skills necessary to abstract from the medical record relevant information for completing the CMS-1500 claim form. Students will recognize general guidelines for completing forms for different carriers to include Medicare, Medicaid, and Workers' Compensation for physician services, surgery, anesthesia, and coordination of benefits. Students will have the opportunity to simulate the entire claims examination process in a group and individual setting. This course will provide the student services. The student will acquire the skills necessary to understand COB (Coordination of Benefits) in services. The student will acquire the skills necessary to understand COB (Coordination of Benefits) in organizing also learn to determine coordination of benefits as they apply to managed care, Preferred Provider Organizations. And Health Maintenance Organizations. They will also learn to optimize payment in a timely and cost-efficient and the difference between clean pending, rejected, incomplete and invalid claims and recognize and describe the reasons why claims are rejected. Students will be training for Electronic Health Records.

Upon completion of this course, students will be able to translate medical reports and their relation to billing forms, abstract from the patient record relevant information for completing the CMS-1500 claim form, recognize and apply proper guidelines for completing the CMS-1500 forms. Students will edit and complete insurance claims in hospital inpatient and outpatient settings to minimize the chance of rejection by insurance carriers and comply with the National Correct Coding Initiative 'will be able to possess a working knowledge of the computerized electronic health record, train on Electronic Health Records, process, process, and post payments.

HC 1402 HEALTH CLAIMS 15/85/3.5

Students will learn to record proper information in financial records or on the patient's ledger card after claim submission. The course will provide understanding on how to complete the UB-04 (Uniformed Bill Inpatient and Outpatient) claim form and to know when it may or may not be used to minimize their chances of rejection by insurance companies. Students will understand medical reports and how they relate to billing forms, and they will learn to recognize triage, operative, diagnostic, and medical history report. Students will have the opportunity to manipulate industry related practice management software and familiarize themselves with today's computerized work environment which must be completed during the course, through a structured self-paced program. Students will be training for Electronic Health Records. Students will also continue their education in anatomy and physiology during this phase.

Upon completion of this course, students will be able to translate medical reports and their relation to billing forms, abstract from the patient record relevant information for completing the CMS-1500 and UB-04 claim forms, recognize and apply proper guidelines for completing the CMS-1500 and UB-04 forms. Students will edit and complete insurance claims in hospital inpatient and outpatient settings to minimize the chance of rejection by insurance carriers and comply with the National Correct Coding Initiative 'will be able to possess a working knowledge of the computerized electronic health record, train on Electronic Health Records, process, process, and post payments

ACPT1402 ADVANCED CODING PRINCIPLES & THEORY II 15/85/3.5

Students will learn the importance of capturing all aspects of Inpatient and Outpatient billing, which will give the students an understanding of procedures performed, services rendered, additional supplies, drugs, etc. that may be used in the medical practice. Students will continue their education m anatomy and physiology during this phase.

Upon completion of this course, students will be able to understand the procedures and services offered in an Inpatient and Outpatient setting, review and code from the operative, laboratory, and radiology reports, and understand how to abstract relevant information from the physician's progress notes in a medical chart. Students will be required to apply all coding guidelines and regulations set forth by CMS. A requirement to create a proper APA formatted research paper will be covered during this course.

DC 1401 DIAGNOSTIC CODING 15/85/3.5

In this course the student will also have the practical application of diagnostic coding from various medical records, and they will be able to apply advanced anatomy and physiology with pathophysiology as it applies to the appropriate diagnostic codes. Clinical information regarding specific disease processes will be covered, as well as diagnostic and procedural which builds upon previous knowledge of the basic principles and conventions of the ICD-10-CM, CPT, HCPS.

Students will continue their education in Anatomy and Physiology during this phase. Upon completion of this course, students will be able to understand the procedures and services offered and interpret medical documentation, to extract all appropriate diagnostic code. Apply instructional notations and conventions of 10-CM, CPT, HCPS classification systems, ability to follow the detail guidelines.

AACPT1403 ADVANCED CODING PRINCIPLES & THERORY III 15/85/3.5

In this course students will learn the coding of more complex diagnostic and procedural statements. Clinical information regarding specific disease processes will be covered, as well as diagnostic and procedural which builds upon previous knowledge of the basic principles and conventions of the ICD-10-CM, CPT, HCPS.

Upon completion of this course, students will be able to apply instructional notations and conventions of 10-CM, CPT, HCPS classification systems, ability to follow the detail guidelines related to their use in assigning single and sequence multiple diagnosis and procedure codes for appropriate reimbursement and data assign lCD-10-CM codes to the highest level of specificity and review the medical record and abstract information to identify diseases and procedures.

MRC 1301 **MEDICAL RECORD CODER** **30/50/3.5**

This course will provide the student with the understanding and practical skills necessary to process claims. Practical work experience will consist of coding and billing compliance for Medical Practices. Students will learn detailed instructions in test taking strategies, as well as timed practical experience needed to sit for any billing and coding national certification exam. Students will also learn how to correctly abstract claims, which is finding errors on claims that have been processed and denied. Students will learn how to effectively audit medical charts.

Upon completion of this course, students will be able to apply instructional notations and conventions of 10-CM, CPT, HCPS classification systems, ability to follow the detail guidelines related to their use in assigning single and sequence multiple diagnosis and procedure codes for appropriate reimbursement and data assign lCD-10-CM codes to the highest level of specificity and review the medical record and abstract information to identify diseases and procedures.

CD 100 **CAREER DEVELOPMENT** **32/0/1.5**

Upon completion of this course, students will be able to produce a resume, cover letter, reference list, and relevant documentation in alignment with their career field and personal background. Students will learn and apply techniques concerning the job search process, navigation of electronic and traditional employment applications, various forms of interviews, and follow-up correspondence. Students will utilize research methods in preparation for successful interviews, career mobility, and advancement.

CERTIFICATE OF COMPLETION IN MEDICAL CLINICAL ASSISTANT

Available at 9624 Plaza Circle Campus

Individuals portrayed in photos are actual students, graduates, or employees of WTC.

Career Opportunities for Medical Clinical Assistant

Employment of medical assistants is projected to grow 16 percent from 2021 to 2031, much faster than the average for all occupations. About 123,000 openings for medical assistants are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire. As a result, physicians will hire more assistants to perform routine administrative and clinical duties, allowing the physicians to see more patients. Medical assistants typically do the following: record patient history and personal information and measure vital signs such as blood pressure; help physicians with patient examinations; give patients injections or medications as directed by physicians and as permitted by state law; schedule patient appointments; prepare blood samples for laboratory tests; enter patient information into medical records. They must keep that information confidential and discuss it only with other medical personnel who are involved in treating the patient. Electronic health records (EHRs) are changing some medical assistants' jobs. More and more physicians are adopting EHRs, moving all their patient information from paper to electronic records. Assistants need to learn the EHR software that their office uses. Medical assistants should not be confused with physician assistants, who examine, diagnose, and treat patients under a physician's supervision. In larger practices or hospitals, medical assistants may specialize in either administrative or clinical work. (Source: D.O.L. *Occupational Outlook Handbook,* 2021-2022).

Labor Market Information (2021 thru 2031 Projections)	**Texas**	**National**
Labor Market Information Employment 2021	69,370	743,500
Projected Employment 2031	75,660	818,400
Absolute Change 2021-2031	3,660	123,000
Percent Change 2021-2031	5.1%	16.00%
Average Hourly Wage 2021	$16.16	$17.88
Average Openings per year due to Replacement	Not available	Not available
Average Openings per year due to Growth	12,060	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

Mission Statement of the Medical Clinical Assistant Program

The mission of Medical/Clinical Assistant faculty and staff is to produce competent entry-level medical assistants with the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains needed in the medical community.

Programmatic Accreditation

The Medical Clinical Assistant program is programmatically accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Educational Objectives

This program will cross train students for multiple skills areas so that they can become more employable. Students will receive 900 hours of comprehensive training in medical terminology, anatomy and physiology, concepts of effective communication; basic finances, third-party reimbursement, procedural and diagnostic coding, legal and ethical implications, applied mathematics, infection control, and nutrition. Students will work with electronic health records charting, patient data collection, clinical duties with special focus on phlebotomy, EKG, and hemodialysis, all incorporated into the training and will complete 168 hours of internship.

The following certification examinations are offered through the National Healthcareer Association (NHA):

- Certified Phlebotomy Technician
- Certified Electrocardiograph Technician
- Certified Clinical Medical Assistant
- Certified Medical Administrative Assistant

The faculty's goal is to train students to have the qualifications and training that allow them the option of choosing the clinical setting in which they would prefer to work physician's offices, clinics, and/or hospitals. Students will gain expertise to provide effective clinical and administrative skills.

Upon satisfactory completion of the training, students will be qualified to assume entry-level positions as a Medical/Clinical Assistants performing the medical procedures, lab techniques, and front office duties described above.

Note: Students are required to demonstrate proficiency in both the psychomotor and affective competencies during each course. An inability to achieve the required level of competency will prevent the student from passing the course even if the overall grade for the course is "passing." For example, if a student has an overall score of 75% in the course but fails a psychomotor or affective competency, they will have to repeat the course.

Note: Students enrolled into the first course (AP101) must achieve a 70% academic score by day 14 or be dropped from the program.

Entrance Requirements

Typing Test

Applicants requesting entry into the Medical/Clinical Assistant program must demonstrate a typing proficiency of 35 WPM with 98% accuracy. Applicants who achieve fewer than 35 WPM and 98% accuracy, but not fewer than 20 WPM with 95% accuracy, are allowed entrance into the MCA program provided they are able to elevate their typing speed to 35 WPM with 98% accuracy before they enter internship. Applicants must adhere to the typing remediation requirements of the program.

Immunization Requirements

1. Tetanus (Td or DTP): Tdap, One immunization within the past 10 years.
2. Measles, Mumps, Rubella (MMR): Two inoculations from childhood should be shown on the records. If only one is shown, then a recent inoculation as an adult must also be shown. If none from childhood can be shown, then one as an adult is acceptable. Proof of immunity may also be shown by the positive titer result.
3. Varicella Titer (also known as chickenpox): Two inoculations given four weeks apart or provide proof of immunity by the positive titer result.

4. Hepatitis B (Hep. B): A series of 3 injections. Injection #1 is given, #2 is given 30 to 60 days after injection #1. Injection #3 is given 4 to 6 months after #2. If the person waits too long between any of the injections, they may have to begin the entire series over again. Proof of immunity may also be shown with positive titer results.
5. Tuberculosis Skin Test or Chest X-Ray (TB, PPD). If the student tested positive to the skin test or is allergic, they must show proof of a current negative TB result (less than one year).

MCA Additional Requirement: Pregnant females may be required to provide a physician note stating they may receive immunizations and TB testing.

Note: MCA requires all immunization to be completed prior to starting the program.

Graduation Requirements

Students graduating from the MCA program are required to earn a minimum of one (1) industry certification. If a student fails a certification exam WTC will hold the Certificate of Completion/Final Transcript, and the student will not be allowed to walk in the graduation ceremony.

Technical Standards and Essential Functions

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. Must be able to communicate effectively (written and oral)
2. Must be able to uphold confidentiality standards in accordance with professional healthcare environments and always maintain a professional demeanor while interacting with fellow students, internship site employees and clientele, administration, and faculty.
3. Students must display a professional demeanor and use language, and conduct that fosters a safe, productive, and ethical learning environment for them and other students enrolled in the program.
4. Students must be able to transfer patients safely from a variety of surfaces, e.g., wheelchairs and beds, and be able to lift equipment needed for patient care.
5. Possess sufficient manual dexterity to perform fine motor tasks such as palpation and measurements and the steadiness, to grasp, manipulate, or assemble needle syringe units, administer safe injections, and perform blood draws.
6. Possess visual and hearing acuity for reading, listening, and documenting in patient charts and administering treatment.
7. Be able to tolerate sitting and/or standing for extended periods of time without a break.
8. Be able to provide and receive needle sticks, to include injections and blood draws without any restriction.
9. Possess sufficient finger dexterity and steadiness to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
10. Possess sufficient manual dexterity, strength, and steadiness to quickly move the hand, the hand together with an arm, or two hands to grasp, manipulate, or assemble objects.
11. Be able to use abdominal and lower back muscles to support and balance part of the body repeatedly or continuously over time without “giving out” or fatiguing. Work may be done up to six feet off the ground.
12. Be able to work in a structured self-paced program.
13. Be able to lift to 50 lbs.
14. Be able to use computers and perform basic computer functions with programs such as Word, Outlook, and Excel

CERTIFICATE OF COMPLETION IN MEDICAL/CLINICAL ASSISTANT

#	Course	Course Title	Hrs.	Theory/ Lab	% On-Ground/ Online	Semester Credit Hours
1	FOU 101	Foundations	48	32/16	100/0	2.0
2	AP101	Anatomy & Physiology/ Medical Terminology	96	50/46	80/20	4.5
3	MF102	Medical/Clinical Assistant Fundamentals	96	50/46	80/20	4.5
4	IB103	Medical Insurance/ Bookkeeping & Billing	96	50/46	80/20	4.5
5	CL101	Clinical I	96	50/46	80/20	4.5
6	CL103	ECG/CPR	96	50/46	80/20	4.5
7	CD 100	Career Development	32	32/0	100/00	1.5
8	CL102	Phlebotomy	126	66/60	80/20	6.0
9	CR 101	Credentialing Review	30	30/0	100/0	2.0
*10	INT 105	Internship	184	0/0/184	00/00	4.0
Total Hours and Credits - Certificate of Completion in Medical Clinical Assistant			**900**	**410/306/184**		**38.0**

NOTE: *Courses with prerequisites are denoted in the course outline with an asterisk (*).*

MEDICAL CLINICAL ASSISTANT COURSE DESCRIPTIONS

FOU 101 FOUNDATIONS 32/16/2.0

Upon completion of this course, the student will be able to identify and state individual educational goals and formulate specific plans to work towards the goals; design and implement a personal time management plan; identify preferred learning style and employ strategies for effective reading and studying; describe and employ critical thinking and creative thinking skills; describe effective listening, note taking, memory retention, writing skills, communication skills, and methods for improving these skills; describe and use various methods of exam preparation; explain test anxiety and list strategies for reducing it; describe the interview process and strategies for successful interviewing; create a resume and a cover letter; perform basic computer, email, and internet operations; create simple word documents; design and deliver a simple presentation; and use the learning management system (Canvas) that will be used for the distance education platform.

AP 101 ANATOMY & PHYSIOLOGY MEDICAL TERMINOLOGY 50/46/4.5

Upon completion of this course, students will be able to understand anatomical structures and functions of the digestive, urinary, reproductive, cardiovascular, respiratory, blood, lymphatic, immune, nervous, integumentary, and the endocrine systems and of female and male reproductive systems; use medical terms, word parts, word roots, prefixes, suffixes, and pronunciation and determine the meanings of the basic word parts, spelling, diagnosis procedures, and medical specialties; dissect various organ; and practice proper handwashing techniques. Further, students will use medical terms that describe positions, directions, planes, and cavities of the body; name the organs of each system and describe their locations and functions, various pathological conditions affecting each system, and detail the meanings of combining forms, prefixes, and suffixes of the system's terminology; Students will be able list and explain some clinical procedures, lab tests, and abbreviations that pertain to the systems and build and analyze medical terms.

MF 102 MEDICAL CLINICAL ASSISTANT FUNDAMENTALS 50/46/4.5

this course will acquaint the student with basic concepts of working in a medical office to include professional and career responsibilities. Develop interpersonal communication through telephone procedures, appointment setting and learning receptionist duties. Learn to maintain and file drug and prescription records. Also gain first-hand knowledge of written communication consisting of written correspondence, processing mail and telecommunication and professional reports. Learn professionalism skills in the allied health professions.

Upon completion of this course, students will be able to understand the importance of exercising interpersonal communication, perform appointment scheduling, create a patient file including SOAP notes, and maintain and file medical records. Students will also be able to demonstrate proper telephone etiquette and have a better understanding of employer expectations.

IB 103 MEDICAL INSURANCE / BOOKKEEPING & BILLING 50/46/4.5

Upon completion of this course students will be able to use the CMS-1500 claim form, obtain reimbursement through accurate claim submissions using the CMS-1500 claim form, perform basic procedural and diagnostic coding, demonstrate accounts receivable and accounts payable procedures, and use a physician's fee schedule; describe the skills and knowledge of financial management and health insurance as they relate to daily functions in a medical office; file accurate claim forms for insurance reimbursement; use ICD-10-CM, CPT, and HCPS coding systems; manage records including patients' medical records through manual and electronic charting; describe legal guidelines/requirements for healthcare and principles of ethical medical decision making; and follow HIPAA guidelines (may become eligible for certificates of completion).

CL 101 CLINICAL I 50/46/4.5

Upon completion of this course students will be able to apply principles of aseptic technique and infection control; use an autoclave; identify and care for instruments used; practice medical asepsis and sterilization methods and take measurements and vital signs; take a medical history, prepare patients for examinations, assist a physician and the patient with those examinations; explain the principles of pharmacology and how to dispense medication under the direct supervision of a physician; provide instructions and teaching for health maintenance and disease prevention; assist with physical examinations and minor surgery.

CL 103 ECG/CPR 50/46/4.5

Upon completion of this course students will be able to explain electrocardiography (ECG) and the basic principles of the cardiovascular system; set up and operate ECG equipment; perform an electroencephalogram (EEG), identify normal and abnormal heart rhythms, detect and distinguish arrhythmias; provide patient instruction and procedural considerations; use lead systems and placement and identifying rhythms; explain the importance of quality assurance and continual quality improvement; perform CPR and offer first aid; perform spirometry, peak-flow, and nebulizer treatment; list and describe facets of health maintenance such as body ergonomics, dietary nutrients and needs, exercise, self-examination techniques, rehabilitation, and healthy living.

CD 100 CAREER DEVELOPMENT 32/0/1.5

Upon completion of this course, students will be able to produce a resume, cover letter, reference list, and relevant documentation in alignment with their career field and personal background. Students will learn and apply techniques concerning the job search process, navigation of electronic and traditional employment applications, various forms of interviews, and follow-up correspondence. Students will utilize research methods in preparation for successful interviews, career mobility, and advancement.

CL 102 PHLEBOTOMY 66/60/6.0

Upon completion of this course students will be able to link basic human anatomy and physiology and anatomy and physiology of the circulatory system; operate phlebotomy equipment; demonstrate phlebotomy techniques and safety; practice customer service and elicit patient compliance; describe considerations and preparation given to specimens, including handling and special procedures and challenges; and explain with legal and ethical issues.

Upon completion of this course, students will be able to perform capillary and veni-punctures, use methods of quality control in the lab and demonstrate proper documentation, collect and process blood, urine, and other specimens for testing; implement CLIA and OSHA guidelines; obtain various specimens for microbiological, serology, hematology testing, screen, and use follow-up test results.

CR 101 **CREDENTIALING REVIEW** **30/0/2.0**

Upon completion of this course, the students will be able to pass the CCMA certification examination. Using the NHA study guide, students will be able to describe the healthcare system and setting, use proper medical terminology; explain basic pharmacology; describe how psychology is used in the healthcare setting; describe body structures and organ systems; identify pathophysiology and disease processes; microbiology, describe general patient care; explain infection control; test land laboratory procedures; perform phlebotomy, EKG and cardiovascular testing; describe patient care coordination and education; define administrative assisting; practice good communication and offer customer service; and explain the roles of medical law and ethics in the clinical setting. Students will be able to pass a practice examination in preparation for the CCMA.

INT 105 **INTERNSHIP** **0/0/168/3.5**

Upon completion of this course, students will be able to demonstrate effective customer service skills, recognize areas that need improvement in performance and knowledge; apply technical skills learned in the classroom in both the administrative and clinical areas, obtain a satisfactory grade on their final evaluation, and demonstrate how to properly interact with patients; establish a network of support through colleagues; follow legal guidelines/requirements for healthcare and principles of medical ethics and decision making; demonstrate understanding of concepts of mental health and applied psychology; recognize, and respond to verbal and nonverbal communication; demonstrate proper telephone etiquette to include triaging and responding appropriately to emergency calls; check patients in for office visits; establish, maintain, and file patient medical records and schedule appointments and demonstrate their knowledge of Electronic Health Records; Upon the conclusion of the experience, students will update their resumes and submit a final copy to the Program Director and Career Services.

NOTE: Students must complete the eight core courses before being placed at an internship site. The 168 hours that make up the internship will enable the student to apply in the work environment the knowledge and skills learned throughout the training for theoretical and clinical settings. The student, with no financial remuneration, will be placed in a medical office or clinic under close supervision to ensure that program objectives are being met.

ASSOCIATE OF OCCUPATIONAL STUDIES DEGREES

ASSOCIATE OF OCCUPATIONAL STUDIES IN AUTOMOTIVE TECHNOLOGY

Available at 9624 Plaza Circle Campus

Individuals portrayed in photos are actual students, graduates, or employees of WTC

Career Opportunities in Automotive Technology

Employment of automotive service technicians and mechanics is projected to show little or no change from 2021 to 2031. Roughly 73,300 openings for automotive service technicians and mechanics are projected each year, on average, over the decade. Most of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire. Numerous openings will be in automobile dealerships and independent repair shops, and about 1 in 10 automotive service technicians and mechanics were self-employed in 2021. The number of vehicles in use continues to rise, and more entry-level service technicians will be needed to perform basic maintenance and repair, such as replacing brake pads and changing oil. New technologies, however, such as electric vehicles, may limit future demand for automotive service technicians and mechanics because they will be more reliable and thus require less maintenance and repair. Of these workers, those who have completed formal postsecondary training programs or achieved ASE certification should enjoy the best job prospects. (Source: D.O.L. Occupational Outlook Handbook, 2021-2022 Edition).

Labor Market Information (2021 thru 2031 Projections)	Texas	National
Labor Market Information Employment 2021	51,540	701,100
Projected Employment 2022	60,680	731,500
Absolute Change 2012-2022	9,140	60,400
Percent Change 2012-2022	17.70%	8.60%
Average Hourly Wage 2021	$18.85	$19.22
Average Openings per year due to Replacement	1,305	Not available
Average Openings per year due to Growth	915	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

Custom Training Group

If minimum qualifications are met, students who complete WTC's Automotive Technology program may be accepted for one of the following manufacturer's training programs: Audi TTC, Volkswagen VSTT, BMW STEP, Mercedes-Benz ELITE, and Volvo.

How to Participate in Manufacturer Training Programs

Participation in these programs is available to graduates of WTC's Automotive Technology Program. Graduates must pass a written test and sit for an interview with the Custom Training Group (CTG). Only students with outstanding attendance records, grades, and attitudes may take the test. If selected, the student's tuition will be paid by the manufacturer. After completing the training, CTG assists the graduates by sending their résumés to all its participating dealerships.

ASE EDUCATION FOUNDATION ACCREDITED PROGRAM IN AUTOMOTIVE TECHNOLOGY

WHAT DOES ASE MASTER LEVEL ACCREDITED IN AUTOMOTIVE MEAN?

Automotive Service Excellence Education Foundation Master Level Accredited in Automotive means that WTC's Automotive Technology program has been accredited by ASE Education Foundation in the following subject areas:

A1. Engine Repair
A2. Automatic Transmission/Transaxle
A3. Manual Drive Train and Axles
A4. Suspension and Steering
A5. Brakes
A6. Electrical/Electronic Systems
A7. Heating and Air Conditioning
A8. Engine Performance

How did WTC's Automotive Program become ASE Education Foundation Accredited?

WTC completed an extensive evaluation and application process. Upon ASE Education Foundation review, an evaluation team conducted an on-site inspection of our campus to review the curriculum, teaching techniques, equipment and training aids, task sheets, tools, budget, and safety measures. WTC remains one of the few private career schools in the nation to be ASE Education Foundation Master LEVEL ACCREDITED in Automotive.

How does a WTC Graduate Benefit from an ASE Education Foundation Master Level Accredited Program?

To become ASE Certified, a person must have two years' work experience and pass ASE certification examinations. A graduate of the school's ASE Master Level Accredited program can substitute the training for one year of work experience toward ASE's two-year work requirement. In addition, information covered in the curriculum helps to prepare students to take the ASE examinations.

Experienced Instructor Staff

Our instructors are required to have recent and sufficient field experience and training before joining the WTC team. They share insights with our students that might otherwise take years to learn. We continually update our instructors with seminars and workshops to keep them abreast of new technology. In turn, they pass this knowledge on to our students. All of WTC's automotive instructors are required to be ASE Certified. A large percentage of the instructional staff is Master Certified in all areas of the automobile.

ASE Education Foundation Master Level Accredited

WTC is one of the few private career schools in the nation to offer an automotive program that is Master Level Accredited by the ASE Education Foundation.

FLAT Chrysler Automotive (FCA), MOPAR CAP Local School Training

There is great demand for high quality and skilled automotive technicians. This demand has outpaced the number of technicians the regular OEM programs can produce and FCA (Fiat Chrysler Automobiles) is the first to look at high

quality colleges to help their local dealers find the technicians they need. The foundational training that you receive in class paired with the factory FCA training sets you apart from the other applicants in the industry, whether applying at a FCA dealer or not. The fact that the student will be able to show success and completion in actual dealership OEM training demonstrates your ability to learn and a solid baseline of technical knowledge. These credentials make you employable, more so than just a college education alone. Together they prepare you for success right now and into the future. Chrysler modules are a required part of the program, and accounts for 10% of the student's grade. Successful graduates upon leaving the program who has completed Level 0 and 1 can then begin working at an FCA dealership at a Level 2 status, and complete 80-90% of the warranty work that comes in while continuing to be trained in Level 2. This is the great value in the CAP Local program. Even if the graduate does not choose an FCA dealership, the OEM training they have received will look good on a resume and demonstrates their ability to complete factory training.

Ford | New Ford Tech ACE

Ford ACE Program
Students have access to an online portal that allows them to take courses on various topics, including New Model Training, Electrical Systems Engineering, History of Ford Motor Company, and Steering & Suspension. These courses are the same curriculum that certified Ford/ Lincoln technicians receive. Courses are continually updated to stay up to date with new technologies and new vehicle releases. The dealership partnership with the school provides unique career discovery, hands-on learning, and immediate job opportunities.

WTC has partnered with Toyota for the Toyota Certification Program.

TECS TECHNICIAN EDUCATION COLLEGE SUPPORT

TOYOTA

AUTOMOTIVE TECHNOLOGY COURSES 1-20
1524 CLOCK HOURS
63.0 SEMESTER CREDIT HOURS

Educational Objectives

The objective of the Automotive Technology Program is to train students to become entry-level automotive technician by providing them with the skills and knowledge to repair today's highly technical automobiles. be trained in automotive electronics and computer systems, diagnosis, engine rebuild, fuel and emission systems, air conditioning, brakes, steering and suspension, and drive trains. Students will learn the soft skills needed to be successful in the automotive workplace to include applied math, business writing and psychology.

Entrance Requirements

In addition to the general admissions requirements and enrollment procedure, a prospective student must possess a valid driver's license before being allowed to start class.

Graduation Requirements

Students graduating from these programs are required to achieve at a minimum one (1) ASE certification and must also meet the general graduation requirements.

Technical Standards and Essential Functions

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. Must be able to operate a manual drive transmission.
2. Must be able to drive and shift a vehicle with a standard transmission.
3. The ability to detect or tell the differences between sounds that vary in pitch and loudness.
4. The ability to decipher detail in short range (within a few feet from the observer).
5. The ability to sit for long periods of time.
6. The ability to stand for long periods of time.
7. Sufficient manual dexterity, strength, and steadiness to make precisely coordinated movements of the fingers, hands, arms, to grasp, manipulate and assemble objects.
8. The ability to climb steps.
9. The ability to match or detect differences between colors, including shades of color and brightness.
10. Sufficient flexibility and to bend, stretch, twist, or reach with arms extended, and/or legs.
11. The ability to adjust the controls of a vehicle quickly and repeatedly to exact positions.
12. The ability to lift to 50 pounds.

Note: The sequential order of classes may differ from that included in the program outline below. Courses with prerequisites are denoted in the course outline with an asterisk (*).

ASSOCIATE OF OCCUPATIONAL STUDIES IN AUTOMOTIVE TECHNOLOGY

#	Course Number	Automotive Technology Course Title	Course Number for Electives	Performance Tuning Course Title	Hrs.	Theory/ Lab	%On Campus/ Online	Semester Credit Units
1	FOU 101	Foundations			48	26/22	80/20	2.0
2	ES 101	Electronics			96	38/58	80/20	4.0
3	FS 102	Fuel Systems			48	26/22	80/20	2.0
4	AD 103	Engine Diagnosis			96	38/58	80/20	4.0
5	EN 104	Engine Repair			96	38/58	80/20	4.0
6	BWE 102	Business Writing			48	26/22	80/20	2.0
7	BR105	Brake Systems			96	38/58	80/20	4.0
8	AMA102	Applied Mathematics I			48	30/18	80/20	2.5
	AT106	Automatic Transmissions			96	38/58	80/20	4.0

	AMA103	Applied Mathematics II			48	30/18	80/20	2.5
9	PT107	Powertrain			96	38/58	80/20	4.0
10	AC108	HVAC I			48	34/14	80/20	2.5
11	AC109	HVAC II			48	26/22	80/20	2.5
12	SAS110	Steering & Suspension			96	50/46	80/20	4.5
13	LDD200	Light Duty Diesel Fuel and Emissions Systems	PT200	Forced Induction & Engine Enhancements	96	50/46	80/20	4.5
14	LDD 201	Light Duty Diesel Engines	PT 201	Performance Brakes & Suspension	48	26/22	80/20	2.0
15	ADV202	Advanced Diagnostics/EV and Hybrid Technology	PT202	Performance Engine Management Systems	96	50/46	80/20	4.5
16	COMM 200	Human Communications			48	26/22	80/20	2.0
17	IN 203	Career Development & Internship			228	24/8 196	00/00	5.5
Total Hours and Credits - AOS Degree in Automotive Technology					**1524**	**652/ 676/ 196**		**63.0**

AUTOMOTIVE TECHNOLOGY COURSE DESCRIPTIONS

FOU 101 FOUNDATIONS 26/22/2.0

Upon completion of this course, the student will be able to identify and state individual educational goals and formulate specific plans to work towards the goals; design and implement a personal time management plan; identify preferred learning style and employ strategies for effective reading and studying; describe and employ critical thinking and creative thinking skills; describe effective listening, note taking, memory retention, writing skills, communication skills, and methods for improving these skills; describe and use various methods of exam preparation; explain test anxiety and list strategies for reducing it; describe the interview process and strategies for successful interviewing; create a resume and a cover letter; perform basic computer, email, and internet operations; create simple word documents; design and deliver a simple presentation; and use the learning management system (Canvas) that will be used for the distance education platform.

ES101 ELECTRONICS 38/58 4.0

This course will introduce the student to the fundamental principles of the automobile's electrical and electronic systems. The course covers the various types of electrical circuits and how they operate, as well as the theories and laws which dictate electrical circuit behavior. The student will also learn the fundamentals of design, construction, and operation of electrical components, meters, wiring, and circuit diagrams. The student

will learn the concepts and functions of the body control module (BCM), advanced lighting circuits, electronic and conventional analog instrumentation, indicator lights, warning lights, electrical accessories, and direct current motors. Starting and charging systems will also be covered.
This course includes Mopar, Ford and Toyota training modules. The student can expect 38 hours of homework during this course.

FS102 FUEL SYSTEMS 26/22 2.0

The student will be introduced to the fundamentals of design, construction, and operation of the internal combustion, spark ignition engine's basic fuel and emission control systems. Automotive safety and the basic engine theories and laws, which govern the formulas concerning force, work, torque, and power, will be covered. This course will cover the fundamental principles of the following systems: electronic fuel injection, air intake, idle speed control, spark timing control, positive crankcase ventilation, intake manifold heat control, fuel pumps, fuel tanks, lines, and filters. This course includes Mopar, Ford and Toyota training modules. The student can expect 16 hours of homework during this course.

AD103 ENGINE DIAGNOSIS 38/58 4.0

This course will review the diagnosis procedures for the basic systems related to the automotive engine. The course will cover the use of diagnostic test tools and scanners to detect and interpret diagnostic trouble codes (DTC) and apply the necessary repairs. The student will be required to use various test equipment to analyze emission levels and determine the cause of abnormal emission readings. The student will practice automotive safety procedures and perform diagnosis on the following engine systems: cooling, lubrication, ignition, emission controls, spark timing controls, intake, and manifold heat controls. Engine tune up procedures will also be covered during this course. This course includes Mopar, Ford and Toyota training modules. The student can expect 38 hours of homework during this course.

EN104 ENGINE REPAIR 38/58 4.0

The student will continue to develop safety practices, diagnostics, and learn to correctly identify and use automotive engine service tools and equipment. Students will learn different engine designs, constructions, and component identification. Engine service, repair, removal and installation procedures are covered along with disassembly, inspection, recondition and assembly of the engine cylinder block and cylinder head assemblies. This course includes Mopar, Ford and Toyota training modules. The student can expect 38 hours of homework during this course

BWE102 BUSINESS WRITING ESSENTIALS 26/22 2.0

The Business Writing Essentials course will teach students the skills required to write business memos, business letters, and technical reports and to do research when necessary. Students will prepare a resume that can be used throughout their program. Team and individual effort will be required for a student to be successful in this course. A formal oral presentation will be required. This course includes Mopar, Ford and Toyota training modules. The student can expect 16 hours of homework during this course

BR105 BRAKE SYSTEMS 38/58 4.0

During this course the student will be introduced to the basic concepts involved in the brake system. General safety practices, as well as safety procedures specific to brake systems, will be covered. The student will become familiar with how Pascal’s law is used to increase force in a hydraulic system. The student will learn the fundamentals of design and operation and perform diagnosis, service and repair on the following systems: master cylinders, power assist units, hydraulic lines and valves, disc, drum, parking and antilock brakes,

electrical and electronic brake components. The MSDS (Material Safety Data Sheets) are introduced during this course. During shop time, the student will be required to apply safety practices and procedures. This course includes Mopar, Ford and Toyota training modules. The student can expect 38 hours of homework during this course.

AMA102 APPLIED MATH I 30/18 2.5

The Applied Mathematics course will refamiliarize the students with basic applied mathematics functions and concepts as they apply in the automotive field. The student will work on decimals, common fractions, ratios and proportions, and percentages as they apply to the automotive field. The math course will improve the student's ability to navigate through some complex formulas in this field and touch on a few elements of the automotive business This course includes Mopar, Ford and Toyota training modules. The student can expect 16 hours of homework during this course.

AT106 AUTOMATIC TRANSMISSIONS 38/58 4.0

In this course, the students will learn the fundamentals of design, operation, and construction of the automobile's automatic transmissions and transaxles, which uses a combination of a torque converter and a planetary gear system to change gear ratios automatically. The students will review and practice drive train theory and automatic transmissions and transaxle theories of operation prior to learning the following systems: hydraulic circuits and apply devices, power flow, planetary gears, shafts, torque converter, clutch engagement and the basic transmission and transaxle electrical/electronic components, sensors, and their respective computer-controlled circuits. This course includes Mopar, Ford and Toyota training modules. The student can expect 38 hours of homework during this course.

AMA103 APPLIED MATH II 30/18 2.5

A continuation of The Applied Mathematics I course will continue to refamiliarize the students with basic applied mathematics functions and concepts as they apply in the automotive field. The student will work on decimals, common fractions, ratios and proportions, and percentages as they apply to the automotive field. The math course will improve the student's ability to navigate through some complex formulas in this field and touch on a few elements of the automotive business. This course includes Mopar, Ford and Toyota training modules. The student can expect 16 hours of homework during this course.

PT107 POWERTRAIN 38/58 4.0

This course introduces the student to the fundamentals of design, construction, and operation of the automotive powertrain systems which transmit the engine's power to the vehicle's drive wheels. The student will learn the safety procedures and the basic theories that directly relate to the powertrain system such as engine torque and torque multiplication. The student will also learn about the components of the powertrain system and their sub-systems. The principal operation of the following systems will also be covered: clutches, manual transmissions, transaxles, front drive axles, drive shafts, universal joints, differentials, and rear drive axles, advance four-wheel systems, transfer gear case as well as powertrain electrical and electronic systems. This course includes Mopar, Ford and Toyota training modules. The student can expect 38 hours of homework during this course.

AC108 HVAC I 34/14 2.5

During the theory portion of Course AC 108 the students will be introduced to the automotive heating and air conditioning systems. The students will learn health and safety practices, the proper use and care of air conditioning tools and equipment, as well as the basic theories, rules and regulations that apply to automotive air conditioning systems. The students will learn the fundamental principles of temperature, pressures and

the differences between sensible, latent, and specific heat values before they are taught the fundamentals of design, construction and operation of the air conditioning system, system components, compressors and clutches, case and duct systems, retrofit, system controls, engine cooling and comfort heating systems. This course includes Mopar, Ford and Toyota training modules The student can expect 16 hours of homework during this course.

AC109 HVAC II 26/22 2.5

Continuation of course AC 109 the students will be introduced to the automotive heating and air conditioning systems. The students will learn the fundamental principles of temperature, pressures and the differences between sensible, latent, and specific heat values before they are taught the fundamentals of design, construction and operation of the air conditioning system, system components, compressors and clutches, case and duct systems, retrofit, system controls, engine cooling and comfort heating systems. This course includes Mopar, Ford and Toyota training modules. The student can expect 16 hours of homework during this course.

SAS110 STEERING & SUSPENSION 50/46 4.5

During this course the student will be introduced to the automotive suspension and steering systems. Automotive safety procedures, lift safety, and the use of precision steering and suspension measuring equipment, will be introduced. Basic theories such as static balance, dynamic balance, and compressibility will be taught followed by an introduction to the fundamentals of design and operation of the following systems: front suspension, rear suspension, wheel bearing, tires, wheels, shock absorbers, struts, steering columns, steering linkage mechanisms, power steering pumps, rack and pinion gears, computer-controlled suspension systems, frames and four-wheel alignment. This course includes Mopar, Ford and Toyota training modules. The student can expect 38 hours of homework during this course.

LIGHT DUTY & EV/HYBRID - ELECTIVES

LDD200 LIGHT DUTY DIESEL FUEL & EMISSIONS SYSTEMS 50/46 4.5

The student will be introduced to the fundamentals of design, construction, and operation of the Dodge, GM, and Ford, diesel engine fuel injection, governors, and emission controls systems. Basic diesel engine theories and laws which govern the formulas concerning force, work, torque, and power will also be covered. During the shop/lab time, the student will apply the diesel shop and personal safety procedures and they will learn to correctly identify and use diesel engine fuel service tools and test equipment that are recommended to perform diagnosis, service, and repairs on mechanical and hydraulic diesel fuel injection, governors, fuel pumps, tanks, and emission control systems. This course includes Mopar, Ford and Toyota training modules. The student can expect 38 hours of homework during this course.

LDD201 LIGHT DUTY DIESEL ENGINES 26/22 2.0

This course will introduce the student to the fundamentals of design, construction, theory, and laws of physics involved with the operation of four (4) stroke cycle light duty diesel engines. The student will learn the principal operation and interaction of the major components of 4 stroke diesel engines, such as engine blocks, crankshafts, cylinder heads, and valve train components. The student will learn to perform diagnosis, service, and repairs on these same engine systems. The student will also be introduced to the fundamentals of design, construction, and operation of the diesel engine accessory systems, such as oil lubrication, cooling, fuel, intake, exhaust turbochargers, and superchargers. The student will perform diagnosis, service, and repairs on these same systems. This course includes Mopar, Ford and Toyota training modules. The student can expect 16 hours of homework during this course.

ADV202 ADVANCED DIAGNOSTICS / EV & HYBRID TECHNOLOGY 50/46 4.5

This course will introduce the student to the fundamental principles of the electric battery-operated Hybrid, Electric and Fuel-Cell Vehicles. Prior to the introduction of the theory and operation of the current Hybrid Vehicle Technology, the student will review the basic electrical systems that were formerly covered in course ES-102, Basic Electronics. The student will learn hybrid safety, hybrid benefits and the concepts and basic functions of the following Hybrid Systems: Series, Parallel, and Series Parallel, Mild and Assist. The power-driven operating procedures for the following auxiliary accessory systems: Battery System, Power Brakes, Power Steering, Light Circuits, Electronic Instrumentation, Indicator Lights, Warning Devices and Heating Ventilation and Air Conditioning System will also be discussed in detail. Hydrogen and Prototype Fuel Cell Electric Vehicles and other possible hybrid vehicles will also be discussed. This course includes Mopar, Ford and Toyota training modules. The student can expect 38 hours of homework during this course.

PERFORMANCE ELECTIVES

PT200 FORCED INDUCTION & ENGINE ENHANCEMENTS 50/46 4.5

This course will teach the student the terminology along with the special parts associated with high performance modified engine components designed to strengthen the motor. The student will also be introduced to the fundamentals of the three power adders: nitrous, superchargers, and turbochargers. The student will learn the operation and theory of wet and dry nitrous systems, as well as nitrous dos and don'ts, and centrifugal and root's type superchargers, selection and sizing, for both journal and ball bearing. This course includes Mopar, Ford and Toyota training modules. The student can expect 38 hours of homework during this course.

PT201 PERFORMANCE BRAKES & SUSPENSIONS 26/22 2.0

The student will also review to the basic concepts involved with the automobile's brake and suspension systems. The student will be taught the correct procedures needed to customize brake components specifically to produce the best results for a variety of different applications, such as road racing, drag racing and high-performance street cars. This course includes Mopar, Ford and Toyota training modules. The student can expect 16 hours of homework during this course.

PT202 ENGINE MANAGEMENT SYSTEMS 50/46 4.5

This course will introduce the student to the basic fundamentals and theory of how to select, install, and calibrate engine management systems, such as piggy-back and stand-alone systems. This course will focus on proper air/fuel ratios and timing maps, specifically for both low and wide-open throttle and will cover the actual "tuning" process. The student will be taught the different fuel and timing parameters for the three different power adders, and they will learn how to "make power" using correct air/fuel ratios and ignition timing. This course includes Chrysler modules. The student can expect 38 hours of homework during this course.

COMM200 HUMAN COMMUNICATIONS 26/22 2.0

The Human Communication course serves to introduce the student to basic principles of human communication and apply those principles of effectively communication in the work environment. This course is designed to develop the students written and verbal communication. This course is designed to address the need employers have for skilled employees who are proficient at problem-solving, who possess communication and soft skills. The student will be required to work on developing their soft skills and will be required to participate in group discussion, group presentations, and individual presentations, and

individual presentation on real-world practical applications. This course includes Mopar, Ford and Toyota training modules. The student can expect 12 hours of homework during this course.

IN203 CAREER DEVELOPMENT & INTERNSHIP 24/8/196 5.5

Upon completion of this course, students will be able to produce a resume, cover letter, reference list, and relevant documentation in alignment with their career field and personal background. Students will learn and apply techniques concerning the job search process, navigation of electronic and traditional employment applications, various forms of interviews, and follow-up correspondence. Students will utilize research methods in preparation for successful interviews, career mobility, and advancement.

The Internship Program will allow students to experience situations that occur during the daily operation of a working shop. Students will be able to apply the knowledge and skills they have learned in previous courses to the workplace environment. Students entering this program must have satisfactorily completed all previous courses of the Automotive Technology Program.

Each student will be placed in an approved automotive repair, service, or maintenance facility without monetary compensation to continue his/her training alongside experienced automotive technicians. The Internship Coordinator will closely supervise each student's progress for a total of one-hundred eighty (180) hours. Supervision will consist of reviewing student evaluations and scheduled/unscheduled weekly extern site contact. Student evaluations will be completed by the extern site manager or supervisor on a weekly basis.

The Internship Program Coordinator will review the student's weekly evaluation as well as any extern site recommendations with each student individually. During the review, any deficiencies indicated will be addressed with the student. The student will work with the Internship Program Coordinator to establish an individual study program designed to address and correct the areas that need improvement. The students will follow their individual study program during the weekly classroom sessions until satisfactorily completed. This course includes Mopar, Ford and Toyota training modules. The student can expect 12 hours of homework during this course.

ASSOCIATE OF OCCUPATIONAL STUDIES IN DIESEL MECHANICS

Available at 9624 Plaza Circle Campus

Individuals portrayed in photos are actual students, graduates, or employees of WTC.

Career Opportunities in Diesel Mechanics

Employment of diesel service technicians and mechanics is projected to grow 4 percent from 2021 to 2031, about as fast as the average for all occupations. About 28,500 openings for diesel service technicians and mechanics are projected each year, on average, over the decade. They occasionally repair vehicles on roadsides or at worksites. Most diesel technicians work full time. Overtime is common, as many repair shops extend their service hours during evenings and weekends. As more freight is shipped across the country, additional diesel-powered truck will be needed to carry freight where trains and pipelines are not available or economical. Additionally, diesel cars and light trucks are becoming more popular, and more diesel technicians will be needed to maintain and repair these vehicles. Diesel engine maintenance and repair is becoming more complex as engines and other component use more electronic systems to control their operation. For example, fuel injection and engine timing systems rely heavily on microprocessors to maximize fuel efficiency and minimize harmful emissions. In most shops, workers often use hand-held or laptop computers to diagnose problems and adjust engine functions. (Source: D.O.L. Occupational Outlook Handbook, 2021-2022 Edition).

Labor Market Information (2021 thru 2031 Projections)	Texas	National
Labor Market Information Employment 2021	23,950	293,200
Projected Employment 2031	28,500	305,500
Absolute Change 2021-2031	3,100	12,600
Percent Change 2021-2031	19%	4%
Average Hourly Wage 2021	$24.37	$23.41
Average Openings per year due to Replacement	410	Not available
Average Openings per year due to Growth	310	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

Daimler Trucks North America (DTNA) Get Ahead Program

Take real web-based factory training that is recognized by Freightliner® and Western Star® Truck Dealerships and

Detroit™ Engine Distributors. WTC's partnership with DTNA and the DTNA service network offers advanced job opportunities for you. The fifty-five Daimler modules are a requirement of the program and accounts for 20% of the student's grade. It is a dealership-based program.

VOLVO-DATE program is corporate training-based program

DATE Program Eligibility

New students enrolling into the Diesel Technology Degree program. To be eligible to participate in the Volvo/Mack Truck DATE courses the student must meet the following criteria.

1. Have and maintain a 3.0 or higher cumulative GPA throughout the Diesel Degree Program.
2. Have and maintain a 97% or higher attendance rate throughout the Diesel Degree Program.
3. Submit a written application to attend the Volvo / Mack Truck DATE courses during ninth basic core course.
4. Pass the application interview during the tenth basic core course and be accepted.

NOTE: Students that fail to maintain the minimum 3.0 GPA and 97% attendance requirements after being accepted into the Volvo/Mack Truck DATE courses are subject to being removed from the Volvo / Mack Truck DATE courses. The student may be allowed to continue the Diesel Program by attending the alternative Diesel Technology courses.

ASE EDUCATION FOUNDATION ACCREDITED PROGRAM IN DIESEL MECHANIC

What does ASE Master Level Accredited In Diesel Mechanics Mean?

ASE Education Foundation Master Level Accredited in Automotive means that WTC's Automotive Technology program has been accredited by ASE Education Foundation. WTC completed an extensive evaluation and application process. Upon ASE Education Foundation review, an evaluation team conducted an on-site inspection of our campus to review the curriculum, teaching techniques, equipment and training aids, task sheets, tools, budget, and safety measures. WTC remains one of the few private career schools in the nation to be ASE Education Foundation Master LEVEL ACCREDITED in Automotive.

How Does a WTC Graduate Benefit from an ASE Education Foundation Master Level Accredited Program?

To become ASE Certified, a person must have two years' work experience and pass ASE certification examinations. A graduate of the school's ASE Master Level Accredited program can substitute the training for one year of work experience toward ASE's two-year work requirement. In addition, information covered in the curriculum helps to prepare students to take the ASE examinations.

Experienced Instructional Staff

Our instructors are required to have recent and sufficient field experience and training before joining the WTC team. They share insights with our students that might otherwise take years to learn. We continually update our instructors with seminars and workshops to keep them abreast of new technology. In turn, they pass this knowledge on to our students. All of WTC's automotive instructors are required to be ASE Certified. A large percentage of the instructional staff is Master Certified in all areas of the automobile.

ASE Education Foundation Master Level Accredited

WTC is one of the few private career schools in the nation to offer an automotive program that is Master Level Accredited by the ASE Education Foundation.

- T2. Truck Diesel Engines T3. Truck Drive Train T4. Truck Brakes
- T5. Truck Suspension & Steering
- T6. Truck Electrical & Electronic Systems T7. Truck HVAC
- T8. Truck PM Truck Hydraulics

AOS DEGREE IN DIESEL MECHANICS COURSES

COURSES 1-12
1524 CLOCK HOURS
63.0 SEMESTER CREDIT HOURS

Educational Objectives

The objective of the Associate of Occupational Studies in Diesel Mechanics is to prepare the student for entry-level employment as a diesel technician with the basic knowledge and skills to diagnose malfunctions, perform preventative maintenance and make necessary repairs on the following systems: diesel engines, suspension and steering, air brakes, electrical/electronics, drive train, heating ventilation and air conditioning, and hydraulics.

The student who completes the program will be prepared to work as an entry-level diesel service technician in medium/heavy-duty dealerships, diesel repair facilities, service, and fleet maintenance facilities.

Notes: The sequential order of classes may differ from that included in the program outline below. Courses with prerequisites are denoted in the course outline with an asterisk (*).

Entrance Requirements

In addition to the general admissions requirements and enrollment procedure, a prospective student must possess a valid driver's license before being allowed to start class.

FOR DIESEL MECHANICS CANDIDATES INTERESTED IN PURSUING THE CDL COURSE IN THE DIESEL MECHANICS PROGRAM:

The Diesel Mechanics program provides an opportunity for students to obtain their Class B Commercial Driver's License. The Texas Department of Motor Vehicles has published requirements for candidates interested in obtaining a Commercial Driver's License (CDL), and they are as follows:

1. Candidates who are 18-20 years of age can qualify for an Intrastate CDL.
2. Candidates 21 years of age or older may apply for an Interstate CDL.
3. Candidates must possess and present a current driver's license from any state; however, candidates must surrender their auto driver's license and accept a Texas CDL.
4. Candidates must undergo a background check. Felony charges will prevent the DMV from issuing a CDL. Candidates should check with an admissions representative for the list of those charges before choosing to take this course.
5. Candidates must present a Social Security identification card.
6. Candidates must produce vehicle insurance and registration on all vehicle(s) registered in their name.
7. Candidates must undergo a Department of Transportation (DOT) physical.
8. Candidates must submit a clean DOT drug test result.
9. Candidates must pass a vision exam.
10. Candidates must be fingerprinted and have a photo taken.

Note: Individuals who undergo the training for the CDL but are unable to obtain a CDL for failure to produce any documentation or failure to pass any of the tests listed above will be charged for the entire course. Also, students pursuing a CDL in the Diesel Mechanics program are required to undergo a background check before entering their internship.

VOLVO/ MACK Truck-DATE Program:

To be eligible to participate in the Volvo/Mack Truck DATE courses the student must meet the following criteria:

1. Have and maintain a 3.0 or higher cumulative GPA throughout the Diesel degree program.
2. Have and maintain a 97% or higher attendance rate throughout the Diesel degree program.
3. Submit a written application to attend the Volvo/ Mack Truck DATE courses during their ninth basic core course.
4. Pass the application interview during their tenth basic core course and be accepted.
5. Possess a valid driver's license.

Graduation Requirements

Students graduating from these programs are required to achieve at a minimum one (1) ASE certification and must also meet the general graduation requirements.

Technical Standards and Essential Functions

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. Must be able to operate a manual drive transmission.
2. Must be able to drive and shift a vehicle with a standard transmission.
3. The ability to detect or tell the differences between sounds that vary in pitch and loudness.
4. The ability to decipher detail in short range (within a few feet from the observer).
5. The ability to sit for long periods of time.
6. The ability to stand for long periods of time.
7. Sufficient manual dexterity, strength, and steadiness to make precisely coordinated movements of the fingers, hands, arms, to grasp, manipulate and assemble objects
8. The ability to climb steps.
9. The ability to match or detect differences between colors, including shades of color and brightness.
10. Sufficient flexibility and to bend, stretch, twist, or reach with arms extended, and/or legs.
11. The ability to adjust the controls of a vehicle quickly and repeatedly to exact positions.
12. The ability to lift to 50 pounds.

ASSOCIATE OF OCCUPATIONAL STUDIES IN DIESEL MECHANICS

#	Course Number For Volvo/ Mack	Volvo/ Mack Course Title	Course Number for Diesel Mechanics	Diesel Mechanics Course Title	Hrs.	Theory / Lab	% On-Campus/ Online	Semester Credit Hours
1			FOU 101	Foundations	48	26/22	80/20	2.0
2			DT 101	Electrical	96	38/58	80/20	4.0
3			DT 103	Engines and Accessories	96	38/58	80/20	4.0

4			BWE102	Business Writing Essentials	48	26/22	80/20	2.0
5			DT 104	Drive Trains/ Steering and Suspension	96	40/56	80/20	4.5
6			DT 105	Basic Brakes	48	18/30	80/20	2.0
7	VM 201	Vehicle Familiarization Computerized Navigation	DT 201	Preventive Maintenance	96	40/56	80/20	4.5
8	VM 202	VM HVAC	DT 202	HVAC	48	18/30	80/20	2.0
9	VM 203	V/M Advanced Electrical& Hydraulics	DT 203	Advanced Electrical& Hydraulics	96	40/56	80/20	4.5
10	VM 204	VM Engines	DT 204	Advanced Engines	48	18/30	80/20	2.0
11	VM 205	VM Advanced Drivetrain /Steering &Suspension	DT 205	Advanced Drivetrain /Steering & Suspension	96	40/56	80/20	4.5
12	VM 206	VM Advanced Brakes	DT 206	Advanced Brakes	48	18/30	80/20	2.0
13	VM 207	VM Diagnostics I & II	DT 207	Fuels and Emissions	96	40/56	80/20	4.5
14	VM 208	VM Aftertreatment	DT 208	Intro to Diagnostics	48	18/30	80/20	2.0
			AMD101	Applied Mathematics	96	68/28	80/20	5.0
	VM 209	VM Diagnostics III	DT209	PC Based Diagnostics	48	18/30	80/20	2.0
			DTC 210 OR CDL 210	CDL or Welding	96	38/58	80/20	4.0
			COMM 200	Human Communications	48	26/22	80/20	2.0
			IN 203	Career Development & Internship	228	24/8/ 196	00/00	5.5
Total Hours and Credits - AOS Degree in Diesel Mechanics					**1524**	**592/736 /196**		**63.0**

* Commercial Driving is a non-Hybrid course

DIESEL MECHANICS COURSE DESCRIPTIONS

FOU101 FOUNDATIONS 26/22/2.0

Upon completion of this course, the student will be able to identify and state individual educational goals and formulate specific plans to work towards the goals; design and implement a personal time management plan; identify preferred learning style and employ strategies for effective reading and studying; describe and employ critical thinking and creative thinking skills; describe effective listening, note taking, memory retention, writing skills, communication skills, and methods for improving these skills; describe and use various methods of exam preparation; explain test anxiety and list strategies for reducing it; describe the interview process and strategies for successful interviewing; create a resume and a cover letter; perform basic computer, email, and internet operations; create simple word documents; design and deliver a simple presentation; and use the learning management system (Canvas) that will be used for the distance education platform.

DT101 ELECTRICAL 38/58 /4.0

This course introduces the student to the fundamental principles of the medium/heavy-duty diesel trucks basic electrical and electronic systems. The course covers the various types of electrical circuits and how they operate, as well as the theories and laws, which dictate electrical circuit behavior. The student will also learn the fundamentals of design, construction, and operation of electrical components, meters, wiring, circuit diagrams, conventional analog instrumentation, indicator lights, warning lights, electrical accessories, and direct current motors. The starting and charging systems will also be covered. The student can expect 38 hours of homework during this course. This course includes OEM training modules.

DT103 ENGINES AND ACCESSORIES 38/58/4.0

This course will introduce the student to the fundamentals of design, construction, theory, and laws of physics involved with the operation of four (4) stroke cycle diesel engines. The student will learn the principal operation and interaction of the major components of 2 and 4 stroke diesel engines, such as engine blocks, crankshafts, cylinder heads, and valve train components. The student will also be introduced to the fundamentals of design, construction, and operation of the diesel engine accessory systems, such as oil lubrication, cooling, fuel, intake, exhaust turbochargers, superchargers, and engine braking. The student will perform diagnosis, service, and repairs on these same systems. The student can expect 38 hours of homework during this course. This course includes OEM training modules.

BWE102 BUSINESS WRITING 26/22/2.0

The Business Writing Essentials course will teach students the skills required to write business memos, business letters, and technical reports and to do research when necessary. Students will prepare a resume that can be used throughout their program. Team and individual effort will be required for a student to be successful in this course. A formal oral presentation will be required. This course includes OEM training modules.

DT104 DRIVE TRAINS / STEERING & SUSPENSIONS 40/56/4.5

During this course, the student will be introduced to the fundamentals and theory of the medium/heavy drive trains and steering and suspension systems. This course will introduce the student to the operating principles of medium/heavy-duty truck drivetrain systems that include manual transmissions, clutches, drive shafts, universal joints and tires/rims. Basic theories such as engine torque multiplication and gear theory will be taught. The basic theory of the medium/heavy-duty truck front and rear suspensions systems will be discussed as well. The shop/lab work will consist of the student is applying the recommended shop and personal safety

procedures, to read and interpret wiring diagrams correctly identifying and using the service tools and test equipment to perform diagnosis of on-board computer systems. The student can expect 38 hours of homework during this course. This course includes OEM training modules.

DT105 BASIC BRAKES 18/30/2.0

This course will introduce the student to the fundamentals of design, construction, operation, and theory of the medium/heavy-duty truck air and air/hydraulic brake systems and components, such as: master cylinder, power assist unit, disc drums, wheel bearings, air brake component and their related electrical/electronic subsystem. Trailer braking systems will also be covered. The student will perform diagnosis, and service on these same systems. The student will learn how to use and interpret Material Safety Data Sheets (MSDS). The student can expect 16 hours of homework during this course. This course includes OEM training modules.

DT201 PREVENTATIVE MAINTENANCE 40/56/4.5

The student will learn how to correctly perform preventative maintenance procedures on all medium/heavy-duty truck systems, be taught the proper procedure to follow when preforming PM inspections, the required forms and state and federal regulations related to on highway vehicle maintenance and inspections. Students will learn basic shop safety practices. The student will perform preventative maintenance procedures on all medium/heavy-duty truck systems and add components, to include trailers and fifth wheels. The student will follow the proper procedure in preforming PM inspections with detailed inspections of the following systems: brakes, exterior lights, engine compartment, interior cabin, tires, and steering and suspension components. Students will learn basic shop management and organizational skills. Special emphasis will be placed on shop safety practices. Students will also participate in organization and workflow management while in a shop environment. The student can expect 38 hours of homework during this course. This course includes OEM training modules.

VM201
Volvo/Mack VEHICLE FAMILIARIZATION/COMPUTER NAVIGATION 40/56/4.5

This course introduces students to industry and OEM information based on Mack Trucks and Volvo Trucks, model identification, and product specific truck theory. During this course**,** the student will learn the history of Mack Trucks and Volvo Trucks. Students will learn how to correctly perform preventative maintenance procedures on Mack Trucks and Volvo Trucks, systems and components. Students will be taught the proper procedure to follow when inspecting Mack Trucks and Volvo Trucks. Students will gain knowledge and build skills in time management, warranty, safety, basic shop management and organizational skills. This course also introduces students to using basic computer skills needed to open the Mack and Volvo Truck Dealer Portals (TDP) to view OEM information based on model and vehicle identification number. Lab safety procedures, proper use of tools and demonstrate the ability to exercise time management and professionalism will be taught. The student can expect 38 hours of homework during this course. This course includes OEM factory training modules.

DT202 HVAC 18/30/2.0

During this course, the student will be introduced to the theory, design, construction, operating principles and diagnostics of the climate control system components: compressors, clutches, evaporator cores, air ducts and case, refrigerant flow, heater cores, electrical/ electronic temperature controls and their required subsystems. The student will learn the principles of temperature, pressures and the differences between sensible, latent, and specific heat values. The student can expect 16 hours of homework during this course. This course includes OEM training modules.

VM202

Volvo/Mack V/M HVAC 18/30/2.0

In this course the student will be given instruction on Mack and Volvo HVAC component location and function during normal operation, how to locate and operate the cab and sleeper HVAC controls during the servicing procedure and how to service, troubleshoot and repair the vehicle's HVAC system for the cab and sleeper using a/c recovery/recycling equipment. The student will be given instruction on how to identify and explain the components of a Volvo D-series and/or Mack MP-series engine. The student can expect 16 hours of homework during this course. This course includes OEM training modules.

DT203 ADVANCED ELECTRICAL & HYDRAULICS 40/56/4.5

The student will review the basic electrical systems previously covered and then introduced to the design, construction, and theory of the medium/heavy truck onboard computer systems that include engine and body computers, input/output sensors, electronic instrumentation, electronic lighting, anti-theft, passive restraint, electrical accessories, and electronic chassis controls. The shop/lab work will consist of the student is applying the recommended shop and personal safety procedures, and learning how to read and interpret wiring diagrams, and correctly identifying and using the service tools and test equipment required to perform service, and repairs on on-board computer systems. During this course, the student will also be introduced to the design, construction, theory and operation of the medium/heavy-duty truck mechanical and Hydraulic systems, to include hydraulic pumps, tanks, hoses, fittings, valves, and actuators. In addition, during this course the student can expect 38 hours of homework during this course. This course includes OEM training modules.

VM203

Volvo/Mack ADVANCED ELECTRICAL & HYDRAULICS 40/56/4.5

In this course the student will review what electricity is and how it is used within the vehicle, the differences between voltage, amperage, and current and how they apply to Ohm's Law. Various circuit types including simple, series, parallel, and series-parallel circuits. Identifying proper volt drops and amperage draws for a starting and charging circuit. The student will also review how to read and interpret wiring schematics and identifying proper wiring and harness repairs on the vehicle. The student will learn how to identify Volvo Trucks specific and Mack Trucks Specific Engine Control Module configurations and the three-module design used by Volvo Trucks and Mack Trucks. The student will also learn how to determine the function of the sensors, controls, and actuators of Mack and Volvo Engine platforms. During this course, the student will be introduced to the design, construction, theory and operation of the medium/heavy-duty truck mechanical and Hydraulic systems, to include hydraulic pumps, tanks, hoses, fittings, valves, and actuators. Students will also participate in organization and workflow management while in a shop environment. The student can expect 38 hours of homework during this course. This course includes OEM factory training modules.

DT204 ADVANCED ENGINES 18/30/2.0

In this course the student will be given instruction on identify and explain the components of a Diesel engine. Students will learn how to disassemble, inspect, and overhaul a diesel engine. Students will also learn the ability to properly identify parts failure and how to properly research parts needed to repair the engine to working order as needed. The student can expect 16 hours of homework during this course. This course includes OEM training modules.

VM204
Volvo/Mack **VOLVO/MACK ENGINES** **18/30/2.0**
In this course the student will be given instruction on identify and explain the components of a Volvo D-series and/or Mack MP-series engine. Students will learn how to disassemble, inspect and overhaul a Volvo or Mack engine. Students will also learn the ability to properly identify parts failure and how to properly research parts needed to repair the engine to working order as needed. The student can expect 16 hours of homework during this course. This course includes OEM factory training modules.

DT205 **ADVANCED DRIVETRAIN / STEERING & SUSPENSIONS** **40/56/4.5**
The student will review basic drivetrains that was covered and will be introduced to advanced theory, design, construction, operating principles and diagnostics of medium/heavy-duty truck drivetrain systems that include manual transmissions, clutches, drive shafts, universal joints, semi-full floating drive axles, multi-wheel drive systems, power take off, air operated shifting, two speed and controlled traction differentials, and tires/rims. Students will review air/hydraulic principles and components operation, and the basic theories such as engine torque multiplication and gear theory will be taught.
During this course, the student will review basic steering and suspension systems. They will then be introduced to advanced design, construction, and theory of the medium/heavy-duty truck front and rear suspensions and brake systems. Students will also perform diagnosis, service, and repairs on these same systems The student can expect 38 hours of homework during this course. This course includes OEM training modules.

VM205
Volvo/Mack **ADVANCED DRIVETRAIN /STEERING & SUSPENSIONS** **40/56/4.5**
In this course the student will be given instruction on Mack and Volvo specific drivetrain , steering and suspension systems The student will review basic drivetrains that was covered and will be introduced to advanced theory, design, construction, operating principles and diagnostics of medium/heavy-duty truck drivetrain systems that include manual transmissions, clutches, drive shafts, universal joints, semi-full floating drive axles, multi-wheel drive systems, power take off, air operated shifting, two speed and controlled traction differentials, and tires/rims. Students will review air/hydraulic principles and components operation, and the basic theories such as engine torque multiplication and gear theory will be taught. They will then be introduced to advanced design, construction, and theory of the medium/heavy-duty truck front and rear suspensions and brake systems. Students will also perform diagnosis, service, and repairs on these same systems The student can expect 38 hours of homework during this course. This course includes OEM training modules.

DT206 **ADVANCED BRAKES** **18/30/2.0**
During this course, the student will review Basic Brakes before they will be introduced to advanced theory, design, construction This course will introduce the student to advanced design, construction, operation, and theory of the medium/heavy-duty truck air and air/hydraulic brake systems and components, such as: master cylinder, power assist unit, disc drums, wheel bearings, air brake component and their related electrical/electronic subsystem. Trailer braking systems will also be covered. The student will perform diagnosis, service, and repairs on these same systems. The student can expect 16 hours of homework during this course This course includes OEM training modules.

VM206
VOLVO/MACK ADVANCED BRAKES 18/30/2.0
In this course the student will be given instruction on Mack and Volvo specific Mechanical and electronic braking systems. The student will learn details about the air braking systems used on Mack Trucks and Volvo Trucks, how to service, troubleshoot, repair, and adjust as necessary the vehicle's brakes, and what type of ABS system is in use on an individual truck. Students will also learn how to test, repair or replace sensor and about the different inputs used by the ABS control to provide enhanced antilock braking and hoe to use handheld computer system for servicing and repairing the ABS system. The student can expect 16 hours of homework during this course. This course includes OEM training modules.

DT207 FUEL & EMISSION SYSTEMS 40/56/4.5
The student will be introduced to the fundamentals of design, construction, and operation of the Detroit, International, Cummins, and Caterpillar diesel engine fuel injection, and governors. Additionally, the fundamentals of design, construction, and operation of EPA diesel fuel emission system requirements will be taught. Students will also be trained on Diesel Particulate Filter (DPF) systems. Student will learn how to identify catalyzed and non-catalyzed Diesel Particulate Filter systems, the components specific to catalyzed and non-catalyzed DPF systems, how to properly diagnose, repair and maintain DPF and be able to describe the process of regeneration and what chemical changes are occurring in the DPF unit. The regeneration and sublimation process for the diesel particulate filter (DPF) and the selective catalyst reduction (SCR) system, what environmental contamination is reduced, diesel exhaust fluid (DEF) and the proper handling procedures, how to service, diagnose and repair the vehicle emission systems.
Students can expect 38 hours of homework during this course. This course includes OEM training modules.

VM207
Volvo/Mack ADVANCED DIAGNOSTICS I & II 40/56/4.5
In this course the student will be given instruction on general and advanced diagnostic troubleshooting practices, procedures, and techniques in a shop environment. Student will learn how to identify fault codes on a vehicle using Mack Trucks and Volvo Trucks proprietary diagnostic software, how to use TDP and PTT during troubleshooting procedures, how to identify HD-OBD and how it will be used in Mack Trucks and Volvo Trucks, J1939, and J1587/1708 data link systems as well as multiplexing, the use of oscilloscopes for electrical fault troubleshooting. In this course the student will be given a review on previously learned general and advanced diagnostic troubleshooting practices, procedures, and techniques, the student will also learn how to use the general diagnostics and advanced diagnostics in a shop environment, how to successfully identify fault codes on a vehicle using Mack Trucks and Volvo Trucks proprietary diagnostic software, and how to the use of TDP and PTT during troubleshooting procedures. The student will learn how to identify HD-OBD and how it will be used in Mack Trucks and Volvo Trucks, an understanding of the ISO, J1939, and J1587/1708 data link systems as well as multiplexing and detailed use of oscilloscope usage on injectors, cam and crank sensing timing, and data link troubleshooting. This course includes OEM training modules. The student can expect 38 hours of homework during this course.

DT208 INTRODUCTION TO DIAGNOSTICS 18/30/2.0
During this course, the student will be introduced to the fundamentals and theory of the medium/heavy truck onboard computer systems and diagnostics. To include engine and body computers, input/output sensors, electronic instrumentation. The shop/lab work will consist of the student is applying the recommended shop and personal safety procedures, to read and interpret wiring diagrams correctly identifying and using the service tools and test equipment to perform diagnosis of on-board computer systems. The student can expect 16 hours of homework during this course. This course includes OEM training modules.

VM208
Volvo/Mack AFTER TREATMENTS & SCR SYSTEMS 18/30/2.0
In this course the student will be given instruction on Mack and Volvo specific steering and suspension systems. The student will also be given instruction on Mack and Volvo specific Diesel Particulate Filter (DPF) systems & Secondary Restraint Systems on Mack Trucks and Volvo Trucks will also be taught. Student will learn how to identify catalyzed and non-catalyzed Diesel Particulate Filter systems, the components specific to catalyzed and non-catalyzed DPF systems, how to properly diagnose, repair and maintain DPF and be able to describe the process of regeneration and what chemical changes are occurring in the DPF unit. Students will also diagnosis and repair Mack and Volvo Secondary Restraint Systems. Students will participate in organization and workflow management while in a shop environment. The student can expect 16 hours of homework during this course. This course includes OEM training modules.

AMD101 APPLIED MATHEMATICS 68/28/5.0
The Applied Mathematics & Precision Measurements course will refamiliarize the students with basic applied mathematics functions and concepts as they apply in the Heavy Truck field and the use of precision measurement tools. The student will work on decimals, common fractions, ratios and proportions, and percentages as they apply to the Heavy Truck field. The math course will improve the student's ability to navigate through some complex formulas in this field. This course includes OEM training modules.

DT209 PC BASED DIAGNOSTIC 18/30/2.0
During this course, the student will review Basic Drivetrains that was covered in DTID 106 before they will be introduced to advanced design, construction, and theory of the medium/heavy truck onboard computer systems that include engine and body computers, input/output sensors, electronic instrumentation, electronic lighting, anti-theft, passive restraint, electrical accessories, and electronic chassis controls.
The shop/lab work will consist of the student is applying the recommended shop and personal safety procedures, and learning how to read and interpret wiring diagrams, and correctly identifying and using the service tools and test equipment required to perform diagnosis, service, and repairs on on-board computer systems. The student can expect 16 hours of homework during this course. This course includes OEM training modules.

VM209
Volvo/Mack VOLVO/MACK ADVANCED DIAGNOSTICS III 18/30/2.0
In this course the student will be given an review on previously learned general and advanced diagnostic troubleshooting practices, procedures, and techniques, the student will also learn how to use the general diagnostics and advanced diagnostics in a shop environment, how to successfully identify fault codes on a vehicle using Mack Trucks and Volvo Trucks proprietary diagnostic software, and how to the use of TDP and PTT during troubleshooting procedures. The student will learn how to identify HD-OBD and how it will be used in Mack Trucks and Volvo Trucks, an understanding of the ISO, J1939, and J1587/1708 data link systems as well as multiplexing and detailed use of oscilloscope usage on injectors, cam and crank sensing timing, and data link troubleshooting. The student can expect 16 hours of homework during this course. This course includes OEM training modules.

CDL210
OR_DTC210 COMMERCIAL DRIVING OR BASIC CUTTING & WELDING 38/58/4.0

OPTION #1- 96 HOURS COMMERCIAL DRIVER LICENSE – STATE OF TEXAS
CLASS B CDL TRAINING

The student will receive entry-level training in commercial vehicle operation and driving with classroom and behind-the-wheel instruction. This will include laws relating to intrastate commercial motor vehicle operations, pre-trip inspection, vehicles safety and operational equipment. Coupling and uncoupling of combination units, placing the commercial motor vehicle in safe operation, the use of controls and emergency equipment. The student will be trained on inspection of mechanical components, defensive driving techniques, cargo loading, securing load, documentation, map reading, DOT logbooks, trip planning, accident and fire prevention, reporting, hazardous material transportation and documentation. The students will also be given demonstration and skill development of basic maneuvers of driving a combination vehicle. Driving proficiency development will include vehicle control, backing, visual search, shifting, turning, space and speed management, and hazard perception. Successful completion of this class should prepare the student to pass the Commercial Driver's License (CDL) skill examination.

Classroom and behind-the-wheel instruction will consist of: laws relating to either interstate and/or intrastate commercial motor vehicle operations; pre-trip inspection of commercial motor vehicles and both safety and operational equipment; coupling and uncoupling of combination units, if the commercial motor vehicle to be driven includes such units; placing the commercial motor vehicle in operation; use of the commercial motor vehicle's controls and emergency equipment; operation of the inner-city and interstate highway traffic and passing; turning, backing, and parking the commercial motor vehicle; braking and slowing the vehicle by means other than application of the brakes; and completing driver's daily log books. Students that select this option must meet all state and Federal requirements related to obtaining a **Class "B" CDL**.

*** Commercial Driver Training is a non-Hybrid course***

OPTION #2-96HOURS BASIC CUTTING AND WELDING

During this course, the student will be taught how to set-up the oxyacetylene process for cutting and welding. The student will learn the basic techniques for basic fillet welds. Safety precautions will be strictly enforced. The shop/lab work will consist of the student applying the recommended shop and personal safety procedures, the student will practice metal cutting and horizontal welding.

COMM 200 HUMAN COMMUNICATIONS 26/22/2.0

The Human Communication course serves to introduce the student to basic principles of human communication and apply those principles of effectively communication in the work environment. This course is designed to develop the students written and verbal communication. This course is designed to address the need employers have for skilled employees who are proficient at problem-solving, who possess communication and soft skills. The student will be required to work on developing their soft skills and will be required to participate in group discussion, group presentations, and individual presentations, and individual presentation on real-world practical applications. The student can expect 16 hours of homework during this course.

IN 203 CAREER DEVELOPMENT & INTERNSHIP 24/8/196/5.5

Upon completion of this course, students will be able to produce a resume, cover letter, reference list, and relevant documentation in alignment with their career field and personal background. Students will learn

and apply techniques concerning the job search process, navigation of electronic and traditional employment applications, various forms of interviews, and follow-up correspondence. Students will utilize research methods in preparation for successful interviews, career mobility, and advancement.

In this course, students will be tested with written and hands on ASE based tests to demonstrate their knowledge and understanding of all the courses they have taken within the Automotive Technology Program. Upon demonstrating their proficiency, they student will be able to apply the knowledge and skills they have learned in a workplace environment in the Western Tech's Automotive Technology Internship Program. The Internship Program will allow students to experience situations that occur during the daily operation of a working shop. Students will be able to apply the knowledge and skills they have learned in previous courses to the workplace environment. Students entering this program must have satisfactorily completed all previous courses of the Automotive Technology Program.

Each student will be placed in an approved automotive repair, service, or maintenance facility without monetary compensation to continue his/her training alongside experienced automotive technicians. The Internship Coordinator will closely supervise each student's progress for a total of one-hundred eighty (180) hours. Supervision will consist of reviewing student evaluations and scheduled/unscheduled weekly extern site contact. Student evaluations will be completed by the extern site manager or supervisor on a weekly basis.

The Internship Program Coordinator will review the student's weekly evaluation as well as any extern site recommendations with each student individually. During the review, any deficiencies indicated will be addressed with the student. The student will work with the Internship Program Coordinator to establish an individual study program designed to address and correct the areas that need improvement. The students will follow their individual study program during the weekly classroom sessions until satisfactorily completed. This course includes OEM training modules. The student can expect 16 hours of homework during this course

ASSOCIATE OF OCCUPATIONAL STUDIES IN REFRIGERATION AND HVAC TECHNOLOGY

Available at 9624 Plaza Circle Campus

Individuals portrayed in photos are actual students, graduates, or employees of WTC.

Career Opportunities in Refrigeration and HVAC Technology

Employment of heating, air conditioning, and refrigeration mechanics and installers is projected to grow 5 percent from 2021 to 2031, much faster than the average for all occupations. Commercial and residential building construction will drive employment growth. Heating and air conditioning systems control the temperature, humidity, and overall air quality in homes, businesses, and other buildings. By providing a climate-controlled environment, refrigeration systems make it possible to store and transport food, medicine, and other perishable items. The growing number of sophisticated climate-control systems is also expected to increase demand for qualified HVACR technicians. Job opportunities for HVACR technicians are expected to be excellent, particularly for those who have completed training at an accredited technical school or through an apprenticeship. Candidates familiar with computer tablets and electronics, as well as those who have developed troubleshooting skills, will have the best job opportunities as employers continue to have difficulty finding qualified technicians to install, maintain, and repair complex new systems. (Source: D.O.L. Occupational Outlook Handbook, 2021-2022 Edition).

Labor Market Information (2021 thru 2031 Projections)	**Texas**	**National**
Labor Market Information Employment 2021	29,700	394,100
Projected Employment 2021	36,030	414,400
Absolute Change 2021-2031	3,720	40,100
Percent Change 2021-2031	21.0%	5.0%
Average Hourly Wage 2021	$25.69	$23.38
Average Openings per year due to Replacement	Not available	Not available
Average Openings per year due to Growth	3,720	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

HVAC TECHNOLOGY
COURSES 1-28
1488 CLOCK HOURS
60.0 SEMESTER CREDIT HOURS

Educational Objectives
The Associate of Occupational Studies Degree in Refrigeration and HVAC Technology program trains students in basic refrigeration principles, basic electricity, air conditioning, and sheet metal work. Students receive additional training in commercial refrigeration, commercial air conditioning, motor controls, and ice machines. The Refrigeration and HVAC Technology program incorporates modern efficiency concepts that tie in energy sustainability and weatherization. This program incorporates energy management, thermography, and energy auditing concepts along with basic solar electricity (photovoltaics) and wind power.

The Refrigeration and HVAC Technology program prepares graduates for entry level positions as refrigeration technicians, air conditioning technicians, maintenance technicians, or sheet metal workers. With the special training, the graduates have the possibility for rapid advancement due to their knowledge of high efficiency systems and concepts.

Entrance Requirements
In addition to the general admissions requirements and enrollment procedure, a prospective student must possess a valid driver's license before being allowed to start class.

Certifications
- Environmental Protection Agency (EPA)-608
- R-410 Refrigerant Safety Certification
- HVAC Excellence Electrical Assessment Exam
- NABCEP Level Exam
- Texas Dept. of Licensing &Regulations Registered Technician License*

Note: Students will have to pass a background check to register with the Texas Dept. of Licensing & Regulations.

Graduation Requirements
All students graduating from this program are required to achieve the EPA 608 certification (minimum TYPE II certification) prior to their scheduled graduation dates must meet general graduation requirements.

Technical Standards and Essential Functions
Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. The ability to see detail at close range (within a few feet of the observer).
2. The ability to match or detect differences between colors, including shades of color and brightness.
3. Sufficient flexibility to bend, stretch, twist, or reach with your body, arms, and/or legs.
4. Sufficient finger dexterity and steadiness to make precisely coordinated movements of the fingers of one or both hands.
5. Ability to grasp, manipulate, or assemble very small objects.
6. Ability to support body while standing, sitting, squatting, or lying down repeatedly or continuously over time without "giving out" or fatiguing.
7. The ability to lift to 50 lbs.
8. The ability to climb both step and extension ladders.
9. The ability to work in high places (i.e., roof tops, catwalks, platforms)

Note: The sequential order of the classes may differ from that included in the program outline below. Courses with prerequisites are denoted in the course outline with an asterisk (*).

ASSOCIATE OF OCCUPATIONAL STUDIES IN REFRIGERATION AND HVAC TECHNOLOGY

#	Course Number	Course Title	Hrs.	Theory /Lab	% On-Campus/ Online	Semester Credit Hours
1	FOU 101	Foundations	48	26/22	80/20	2.0
2	TF-101	Technical Fundamentals	48	32/16	80/20	2.5
3	TF-102	Technical Fundamentals Lab	48	0/48	100/0	1.5
4	AM-101	Applied Math I	48	32/16	80/20	2.5
*5	EL-102	Basic Electricity	48	32/16	80/20	2.5
*6	EL-103	Basic Electricity Lab	48	0/48	100/0	1.5
*7	AM-102	Applied Math II	48	32/16	80/20	2.5
8	FR-103	Fundamentals of Refrigeration	48	32/16	80/20	2.5
9	FR-104	Fundamentals of Refrigeration Lab	48	0/48	100/0	1.5
10	GS-105	General Sheet Metal	48	16/32	80/20	2.0
11	AC-106	Air Conditioning	48	32/16	80/20	2.5
12	AC-107	Air Conditioning Lab	48	0/48	100/0	1.5
13	HS-109	Heating Systems	48	32/16	80/20	2.5
14	HS-110	Heating Systems Lab	48	0/48	100/0	1.5
15	RM-207	Refrigerant Management	48	32/16	80/20	2.0
16	ACC-201	Commercial Air Conditioning	48	32/16	80/20	2.5
17	ACC-202	Commercial Air Conditioning Lab	48	0/48	100/0	1.5
18	CON-201	Energy Management and Controls	48	32/16	80/20	2.0
*19	RC-203	Commercial Refrigeration	48	32/16	80/20	2.5
*20	RC-204	Commercial Refrigeration Lab	48	0/48	100/0	1.5
*21	IM-204	Ice Machines	48	16/32	80/20	2.0
*22	HEM-206	Electric Motors and Controls	48	32/16	80/20	2.5
23	HEM-207	Electric Motors and Controls Lab	48	0/48	100/0	1.5
24	BWE-104	Business Writing Essentials	48	16/32	80/20	2.0
*25	HDI-209	Diagnostics and Installation Procedures	48	32/16	80/20	2.5
*26	HDI-210	Diagnostics and Installation Procedures Lab	48	0/48	100/0	1.5
27	HUCOMM	Human Communication	48	16/32	80/20	2.0
*28	HIN-209	Career Development/Internship	192	24/8/160	00/00	5.0
Total Hours- AOS Degree in Refrigeration and HVAC Technology		**1488**	**530/798/160**			**60.0**

REFRIGERATION AND HVAC TECHNOLOGY COURSE DESCRIPTIONS

FOU 101 **FOUNDATIONS** **26/22/2.0**

Upon completion of this course, the student will be able to identify and state individual educational goals and formulate specific plans to work towards the goals; design and implement a personal time management plan; identify preferred learning style and employ strategies for effective reading and studying; describe and employ critical thinking and creative thinking skills; describe effective listening, note taking, memory retention, writing skills,

communication skills, and methods for improving these skills; describe and use various methods of exam preparation; explain test anxiety and list strategies for reducing it; describe the interview process and strategies for successful interviewing; create a resume and a cover letter; perform basic computer, email, and internet operations; create simple word documents; design and deliver a simple presentation; and use the learning management system (Canvas) that will be used for the distance education platform.

TF 101 TECHNICAL FUNDAMENTALS 32/16/2.5

During this first course students will be oriented in their career field. Students will cover basic tools use in the industry, they will cover basic safety procedures, and cover a ladder safety written exam. Students will learn the science behind the industry such as the laws of Thermodynamics and heat transfer, Boyle's Law, Charles' Law, and Dalton's Law.

TF 102 TECHNICAL FUNDAMENTALS LAB 0/48/1.5

This course is the lab portion of TF-101 Technical Fundamentals. During this course students will be required to perform the following competencies, utilize Learning Resource Center, Swage and flare copper and aluminum tubing, Braze copper to copper, aluminum to aluminum, copper to steel, and steel to steel. Student will read and interpret special tools: manifold gauges, volt, Ohm, and amp meters.

AM 101 APPLIED MATHEMATICS I 32/16/2.5

The Applied Mathematics course will re-familiarize the student with basic applied mathematics functions and concepts as they apply to Refrigeration and HVAC Technology. work on decimals, common fractions, ratios and proportions, and percentages as they apply to the HVAC field.

EL 102 BASIC ELECTRICITY 32/16/2.5

In this course, students will learn the basics of electricity. Students will start with the movement of electrons, conductors, insulators, direct and alternating current, and electrical units of measurement. Also included is a description of the electrical circuit, making electrical measurements, Ohm's law, series and parallel circuits, electrical power, magnetic fields, inductance, transformers, capacitance, impedance, sine waves, and using electrical measuring instruments. The course also covers wire sizes, circuit protection devices, and semiconductors or solid- state components. **PREQUISITE: TF-101, TF-102**

EL 103 BASIC ELECTRICITY LAB 0/48/1.5

This course is the lab portion of EL-102 Basic Electricity. In this course the students will be required to perform the following competencies: Identify and name basic components in an electrical circuit, wire basic series circuit and basic parallel circuits, read, and interpret pictorial and schematic diagrams. **PREREQUISITE: TF-101, TF-102**

AM 102 APPLIED MATHEMATICS II 32/16/2.5

The Applied Mathematics course will become more complex and improve the student's ability to navigate through complex formulas in this field and touch on a few other Refrigeration, Heating, Ventilation, and Air Conditioning business.

FR 103 FUNDAMENTALS OF REFRIGERATION 32/16/2.5

This course will cover the basic refrigeration cycle and the four basic components of the refrigeration system. The refrigeration cycle is the basis of all refrigerating equipment and an integral part of the program. The different types of compressors, condensers, evaporators, and metering devices will also be covered. **PREREQUISITE: EL-102, EL-103**

FR 104 FUNDAMENTALS OF REFRIGERATION LAB 0/48/1.5

Students will perform lab projects on refrigeration trainers and be able identify components and observe the refrigeration cycle. Upon completion of this course, be able to understand and identify the basic components in the refrigeration cycle. Student will also diagnose and repair a domestic refrigerator. **PREREQUISITE: EL-102, EL-103**

GS 105 GENERAL SHEET METAL 16/32/2.0

Upon the completion of this course, have students should have acquired the knowledge to fabricate and install both residential and commercial sheet metal ducting systems. Sheet metal fabrication will give the student the ability to produce the basic requirements needed in the sheet metal industry. The proper use of tools and safe handling of sheet metal will be emphasized.

AC 106 AIR CONDITIONING 32/16/2.5

The refrigeration cycle as applied to air conditioning will be covered. Students will be able to define comfort and understand basic Psychrometric chart. The design and theory of operation of air conditioning systems including direct expansion evaporators, sensors and dehumidification will be explained. Practical work experience consisting of general servicing, component replacement, schematic drawing and troubleshooting of conventional and computer-controlled air conditioners will also be included. **PREREQUISITE: FR-103, FR-104**

AC 107 AIR CONDITIONING LAB 0/48/1.5

This is the lab portion of AC-106. Students will be required to perform the following competencies
Identify components on split air conditioning system, packaged air conditioning system, properly connect refrigeration gauges on air conditioning systems, check system pressures and temperatures and use and understand the purpose of a sling psychrometer and digital psychrometer. **PREREQUISITE: FR-103, FR-104**

HS 109 HEATING SYSTEMS 32/16/2.5

In this course students will be taught various types of heating systems in use today. Installation and repair techniques will be discussed and demonstrated with emphasis on gas-fired, electric systems. Students will learn about safety consideration when working with gas furnaces. Electric heating and hydronic heating will also be covered. **PREREQUISITE: EL-102, EL-103**

HS 110 HEATING SYSTEMS LAB 0/48/1.5

This course is the lab portion of HS-109. Students will be required to perform the following competencies:
Cut and thread black pipe, adjust gas valve pressure, perform a CO check, adjust a thermostat heat anticipator, and troubleshoot standing pilot and high efficiency furnaces. **PREREQUISITE: EL-102, EL-103.**

RM 207 REFRIGERANT MANAGEMENT 32/16/2.0

According to Section 608 of the Clean Air Act of 1990, the Environmental Protection Agency (EPA), has made it a requirement that persons servicing or disposing of air-conditioning and refrigeration equipment be certified. It also limits the sale of refrigerants to certified technicians. Student will also review safety procedures and proper operating conditions of R-410A refrigerant. Students will take the R-410A safety certification exam. During this course students will learn the regulations, techniques and equipment necessary to pass the certification exams. **PREREQUISITE: FR-102, FR-103**

ACC 201 COMMERCIAL AIR CONDITIONING 32/16/2.5

This course will cover commercial air conditioning systems including high pressure, low pressure, and absorption chilled water systems. Students will also cover cooling towers, pumps, commercial package units, variable refrigerant flow, and variable air volume systems. **PREREQUISITE: AC-106, AC-107.**

ACC 202 COMMERCIAL AIR CONDITIONING LAB 0/48/1.5

This course is the lab portion of ACC-201. The students will be required to perform the following competencies: Identify major components of a chilled water system, explain the proper operation, maintenance, and troubleshooting procedures of chilled water systems and perform sta1t-up and troubleshoot a scroll chilled water system. **PREREQUISITE: AC-106, AC-107**

RC 203 COMMERCIAL REFRIGERATION 32/16/2.5

In this course students will cover commercial refrigeration systems including single compressor and parallel compressor, or supermarket rack systems. The design and theory of operation of reach-in, walk-in freezers, and coolers will be taught. An in-depth study of controls to regulate commercial systems completes this stage. **PREREQUISITE: FR-103, FR-104**

RC 204 COMMERCIAL REFRIGERATION LAB 0/48/1.5

This course is the lab portion RC-203. Students will be required to perform the following competencies: Define and measure superheat, sub-cooling, and compressor efficiency, pump down a refrigeration system and perform component removal, diagnose, set, and install pressure devices and defrost timeclocks. **PREREQUISITE: FR-103, FR-104**

IM 204 ICE MACHINES 16/32/2.0

This course will provide the student with the general knowledge to diagnose and repair ice machines. Installation and service procedures will be presented and discussed. Proper piping practices will be taught that will enable the student to properly install a remote condenser icemaker Practical work will consist of diagnosing electrical circuits, refrigerant charge, water circuit and other malfunctions to ice makers. Commercial types of ice makers commonly found in the industry will contain electromechanical as well as electronic controls. **PREREQUISITE:FR-103, FR-104**

HEM 206 ELECTRIC MOTORS AND CONTROLS 32/16/2.5

This course teaches the theory, operation, installation and maintenance of electric motors and electric motor controllers. Three phase compressors and three phase starting circuits. Students will learn about and train on variable frequency drive trainers where they will learn to program and troubleshoot VFD' s. Practical work projects will include various motors, controls, and control panels. **PREREQUISITE: EL-102, EL-103**

HEM 207 ELECTRIC MOTORS AND CONTROLS LAB 0/48/1.5

This course is the lab portion of HEM-206. Students will be required to perform the following competencies: Wire stop-start switches with line voltage controls, install and operate 120 volt on-delay timer with motor control, wire sequence controls, identify and wire three-phase wye and delta motor circuit connections and program and troubleshoot Variable Frequency Drive's. **PREREQUISITE: EL-102, EL-103**

CON 201 ENERGY MANAGEMENT AND CONTROLS 32/16/2.0

In this course students will become familiar, with the help of our two custom building automation/energy management trainers, how technology can be combined with our HVAC systems. Building automation is the use of automation and control systems to monitor and control building wide system such as, HVAC, lighting, alarms, and security access and cameras. Converging these systems into a single IT-managed network infrastructure creates a smart building that is also able to conserve energy. By utilizing this type of technology, a technician is able to begin the troubleshooting process without having to be next to the unit itself as well as able to set parameters for the unit to follow in order to save energy by utilizing VFDs.

BWE 104 BUSINESS WRITING ESSENTIALS 16/32/2.0

The Business Writing Essentials course will teach students the skills required to write business memos, business letters, and technical reports and to do research when necessary. Students will prepare a resume that can be used

throughout their program. Team and individual effort will be required for a student to be successful in this course. A formal oral presentation will be required.

HDI 209 DIAGNOSTICS AND INSTALLATION PROCEDURES 32/16/2.5

This course introduces the student to the latest and most accurate diagnostic procedures used in the field as it applies to electrical, mechanical, and air flow problems. The course will cover low, medium, and high temperature systems used in heating, ventilation, air conditioning, and refrigeration industry. Electrical diagrams will be shown, and pressure temperature relationships will be explained. **PREREQUISITE: RC-203, RC-204**

HDI 210 DIAGNOSTICS AND INSTALLATION PROCEDURES LAB 0/48/1.5

This course is the lab portion of HDI-210. Students will be required to perform the following competencies, which include demonstrating proper leak testing, vacuum, and charging methods, measure and adjust superheat and sub-cooling, demonstrate proper field wiring, and demonstrate mechanical techniques on a variety of equipment. P**REREQUISITES: RC-203, RC-204**

HUCOMM HUMAN COMMUNICATION 16/32/2.0

The Human Communication course serves to introduce the student to basic principles of human communication and apply those principles of effectively communication in the work environment. This course is designed to develop the students written and verbal communication. This course is designed to address the need employers have for skilled employees who are proficient at problem-solving and developing their soft skills and will be required to participate in group discussion, group presentations, and individual presentations, and individual presentation on real-world practical applications.

HIN 209 CAREER DEVELOPMENT/INTERNSHIP 24/8/160/5.0

Upon completion of this course, students will be able to produce a resume, cover letter, reference list, and relevant documentation in alignment with their career field and personal background. Students will learn and apply techniques concerning the job search process, navigation of electronic and traditional employment applications, various forms of interviews, and follow-up correspondence. Students will utilize research methods in preparation for successful interviews, career mobility, and advancement.

The internship program allows the student to experience situations which occur during the daily operation of a working shop as students are placed with a local employer and apply the knowledge and skills learned in the classroom and shop/lab. Participation in the internship program requires that the student satisfactorily completes all previous program courses. Students will be placed in an approved HVAC/R repair, service, or maintenance facility without monetary compensation. The internship coordinator will supervise each student's progress during the 176-clock hour internship. Supervision consists of weekly student evaluations and scheduled/unscheduled weekly site visits. A weekly evaluation will be completed by the intern site manager. Students will be required to attend school one day per week for a classroom session during the internship experience for a total of 32 classroom hours. During this class period the intern coordinator will review the student's weekly evaluation as well as any recommendations made by the site manager or coordinator. Time will be taken to review any deficiencies suited by the site manager. A study program will be established by the extern coordinator and progress will be monitored each week during the class session. The student must successfully meet each requirement of the internship to qualify for graduation. **PREREQUISITE: HDI-209 HDI-210**

ASSOCIATE OF APPLIED SCIENCE DEGREES

ASSOCIATE OF APPLIED SCIENCE IN AEROSPACE AND DEFENSE TECHNOLOGY

9451 Diana Drive, El Paso, TX 79924

Career Opportunities in Aerospace and Defense Technology

Aerospace and defense technicians operate and maintain equipment used in developing, testing, producing, and sustaining new aircraft, spacecraft, and aerospace electronics systems. Aerospace and defense technicians work in manufacturing or industrial plants, laboratories, and offices. Many aerospace and defense technicians work on projects related to national defense and therefore will need security clearances. Aerospace and defense technicians work mainly on national defense–related projects. Opportunities for employment with civilian space companies should increase as spaceflight shifts to the civilian market from government agencies. In addition, aerospace and defense technicians will be needed due to rising demand to manufacture small satellites known as CubeSats or Small-Sats that are used for many purposes such as communications or gathering data. Employment of aerospace engineering and operations technologists and technicians is projected to grow 6 percent from 2021 to 2031, about as fast as the average for all occupations. About 1,200 openings for aerospace engineering and operations technologists and technicians are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.(Source: D.O.L. Occupational Outlook Handbook). https://www.bls.gov/ooh/architecture-andengineering/aerospace-engineering-and-operations-technicians.htm

Labor Market Information (2021-2031 Projections)	**Texas**	**National**
Labor Market Information Employment 2021	1571	11,300
Projected Employment 2031	1902	12,000
Absolute Change 2021-2031	331	700
Percent Change 2021-2031	21.07%	6%
Average Hourly Wage 2021	$33.00	$35.37
Average Openings per year due to Replacement	Not Available	Not available
Average Openings per year due to Growth	Not Available	Not available
Source: The Labor Market and Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

AAS DEGREE IN AEROSPACE AND DEFENSE TECHNOLOGY
COURSES 1-22
1668 CLOCK HOURS
70.0 SEMESTER CREDIT HOURS

Educational Objectives

Graduate of this program will complete an academic associate degree in aerospace and defense technology with the fundamental skills needed for career entry and advancement in the Aerospace and Defense industry. Through classroom instruction, students will learn about electronic and aerospace technologies. In addition to the theoretical knowledge, the graduate will gain valuable hands-on experiences in diverse technical areas.

Entrance Requirements

Applicants will be required to sign an attestation acknowledging that they do not have a criminal background. Having a criminal background may disqualify the applicant during the hiring process. In most cases, applicants must be able to pass a security clearance as a requirement for employment. Students accepted into the program must be physically, mentally, and emotionally capable of completing the program.

The admission process requires the following:

1. An application letter stating why the prospect wants to be accepted.
2. Two letters of recommendation from an appropriate source, e. g., previous employers, teachers, instructors/mentors. Not acceptable are family members, friends, colleagues.
3. Applicants must take the Wonderlic Scholastic Level Exam (SLE). Applicants will be admitted into the ADT program based on a point system that accounts for the complete application; an SLE score, and an interview. A score of zero in any category will disqualify an applicant from consideration.
4. A maximum of 20 students will be selected for admission into each cohort. Several alternates may be selected to fill available seats in case an applicant declines their acceptance into the program or does not complete the requirements on time.

To ensure optimal objectivity with the interview process, all interviewees will be interviewed with the same set of predetermined questions.

Certifications

The experience gained from this program will prepare the student for the following professional certification examinations: The ISCET Associate Level Certified Electronics Technician (CET) certification; the Certified Fiber Optics Technician certification through FOA; IPC certifications in Soldering (J-STD-001) and Wire Harnesses (WHMA-A-620C); OSHA 30-hour industrial certification, and NCATT Aircraft Electronics Technician.

Graduation Requirements

Students graduating from this program are required to achieve at a minimum, (two) of the professional certifications and must meet general graduation requirements.

Graduates of this program will be qualified for entry-level employment into the Aerospace and Defense industry as Aerospace Products and Parts Manufacturing Technician, Test Technician, Repair Technician,

Bench Technician, Quality Technician, and Fiber-Optic Technician but are not limited to these positions as the industry continues to grow.

Note: WTC offers certification testing to its aerospace and defense technology graduates**.**

Technical Standards and Essential Functions

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program.

1. Must be able to see details at close range (within a few feet of the observer)
2. Must be able to match or detect differences between colors, including shades of color and brightness.
3. Must possess sufficient finger dexterity and steadiness to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble objects.
4. Must possess sufficient manual dexterity and steadiness to quickly move the hand, the hand together with the arm, or two hands to grasp, manipulate, or assemble objects.
5. Must be able to perform physical activities that require considerable use of your arms and legs moving the whole body, such as climbing, lifting, balancing, walking, stopping, and handling of materials.
6. Must be able to operate computers and computer systems (including hardware and software) to program, setup functions, enter data, or process information.
7. Must possess the ability to utilize computers and perform basic computer functions with programs in the Microsoft Suite, Word, Outlook, and Excel.

NOTE: The order of classes may differ from the program outline below.

ASSOCIATE OF APPLIED SCIENCE IN AEROSPACE AND DEFENSE TECHNOLOGY

#	Course	Title	Hrs.	Lec/Lab/ Int	% On-Campus/ Online	Semester Credit Hours
1	FOU 101	Foundations	48	26/22	80/20	2.0
2	ITSC 1401	Computer Applications	96	10/86	80/20	3.5
3	ENGL 1301	English Composition	48	48/0	0/100	3.0
4	ITSC 1411	Computer Technology	96	10/86	80/20	3.5
*5	MATH 1314	College Algebra	48	48/0	50/50	3.0
*6	PHYS 1401	College Physics I	96	32/64	50/50	4.0
7	ETIC 1220	Industrial Safety and Quality	48	16/32	80/20	2.0
*8	CETT 1401	Electronic Circuits I	96	32/64	80/20	4.0
9	SCOM 1315	Fundamentals of Human Communications	48	48/0	0/100	3.0
*10	CETT 1402	Electronic Circuits II	96	32/64	80/20	4.0
11	LOTT 2201	Introduction to Fiber Optics	48	16/32	80/20	2.0
*12	CETT 1425	Digital Fundamentals	96	32/64	80/20	4.0
13	CETT 1204	High Reliability Soldering	48	16/32	80/20	2.0
*14	AERO 2201	Introduction to Aerospace	48	16/32	80/20	2.0
15	AERO 2435	Materials and Processes	96	32/64	80/20	4.0

*16	AERO 2440	Aerospace Electronic Systems	96	32/64	80/20	4.0
17	CETT 2205	Cable and Wire Harness Assemblies	48	16/32	80/20	2.0
*18	AERO 2450	Aerospace Systems	96	32/64	80/20	4.0
19	PSYC 2301	General Psychology	48	48/0	0/100	3.0
20	EECT 2439	Communication Circuits	96	32/64	80/20	4.0
*21	AERO 2255	Aerospace Test and Measurements	48	16/32	80/20	2.0
22	CDVI2201	Career Development/Internship	192	32/0/160	100/00	5.0
Total Hours and Credits – AAS in Aerospace and Defense Technology			**1680**	**622/898/160**		**70.0**

NOTE: Courses with prerequisites are denoted in the course outline with an asterisk (*). ***Courses flagged as (Gen Ed) are described in the General Education Courses section of this Catalog.***

AEROSPACE AND DEFENSE TECHNOLOGY COURSE DESCRIPTIONS

FOU 101 FOUNDATIONS 26/22/2.

Upon completion of this course, the student will be able to identify and state individual educational goals and formulate specific plans to work towards the goals; design and implement a personal time management plan; identify preferred learning style and employ strategies for effective reading and studying; describe and employ critical thinking and creative thinking skills; describe effective listening, note taking, memory retention, writing skills, communication skills, and methods for improving these skills; describe and use various methods of exam preparation; explain test anxiety and list strategies for reducing it; describe the interview process and strategies for successful interviewing; create a resume and a cover letter; perform basic computer, email, and internet operations; create simple word documents; design and deliver a simple presentation; and use the learning management system (Canvas) that will be used for the distance education platform

ITSC 1401 COMPUTER APPLICATIONS 10/86/3.5

Introduces the basic features of Microsoft Office, Windows basics, and file management. Students will develop familiarity with Word, Excel, PowerPoint, email, and Internet basics.

ITSC 1411 COMPUTER TECHNOLOGY 10/86/3.5

This course introduces basic computer hardware, operating software, and networks. It covers installing, upgrading, configuring, troubleshooting, and preventive maintenance of computers and networks with additional elements of soft skills and security.

ETIC 1220 INDUSTRIAL SAFETY AND QUALITY 16/32/2.0

This course covers identification of hazards, personal protective equipment, safe practices, and protection of personnel, property, and equipment in the industrial environment. Safety procedures, including OSHA regulations and hazardous materials handling, are also covered. Includes hands-on approach to the identification, use and care of tools and equipment used in industrial systems.

CETT 1401 ELECTRONIC CIRCUITS I 32/64/4.0

The course introduces the basic concepts and theory of electricity and magnetism with an emphasis on passive electrical elements such as resistors, capacitors, and inductors (RCL) and their applications in alternating current (AC) or direct current (DC) circuits. Students also learn how to build, test, and analyze simple RCL circuits in the laboratory, and use simulation software and test equipment such as power supply, multimeter, signal/function generator, and oscilloscope. Related mathematics and physics concepts are developed alongside these concepts of electrical engineering**. PHYS 1401 College Physics is a prerequisite.**

CETT 1402 ELECTRONIC CIRCUITS II 32/64/4.0

The course introduces the basic concepts and theory of electronic solid-state devices with an emphasis on active electrical elements such as diodes, transistors and integrated circuits, and their applications in AC and DC circuits. Students also learn how to build, test, and analyze simple solid-state circuits in the laboratory, and use simulation software and test equipment such as power supply, multimeter, signal/function generator, and oscilloscope. Related mathematics and physics concepts are developed alongside these concepts of electrical engineering. **CETT 1401 Circuits I is a prerequisite.**

CETT 1425 DIGITAL FUNDAMENTALS 32/64/4.0

This course is an entry level course in digital electronics to include numbering systems, logic gates, Boolean algebra, and combinational logic. Different types of circuits such as of flip-flops, shift registers, adders, display decoders, multiplexers and demultiplexers, semiconductor memories, and other digital devices. The student is also introduced to troubleshooting techniques. Laboratory exercises during this course will provide the student practical experience to reinforce the theory. **CETT 1402 Circuits II is a prerequisite.**

CETT 1204 HIGH RELIABILITY SOLDERING 16/32/2.0

An explanation of the automated and hand soldering processes plus J STD-001 Hand soldering training including an understanding of the JSTD- 001 criteria for acceptable solder connections as well as component preparation, hand soldering, repair, packaging, inspection, ESD control, and process control with hands on experience and critique for assembly and hand soldering of wires and terminals, through-hole components and surface mount components. Upon successful completion of the course be certified by IPC in J-STD-001.

AERO 2201 INTRODUCTION TO AEROSPACE 16/32/2.0

Students are introduced to different types of aerospace systems and terminology and fundamental concepts of aircraft, spacecraft, and missile technologies through integrated lectures and laboratory sessions. The course presents introductory system-level concepts of fixed-wing and rotary-wing aircraft, space launch vehicles, spacecraft/satellite, and missiles.

AERO 2435 MATERIALS AND PROCESSES 32/64/4.0

This course covers the physical properties and characteristics of common materials, commodities and non-metallic materials used in the aerospace industry. Materials compatibility, basic metallurgy, treatment processes, adhesives, coatings, sealing, and issues with delamination, and faulty bonds.

AERO 2440 AEROSPACE ELECTRONIC SYSTEMS 32/64/4.0

The students are introduced to different basic control circuits using sensors, transmitters, transducers, and strain gauges. Students should be able to describe and define performance criteria for sensors and predict and analyze performance for different transducers and sensors. CETT 1402 Circuits II is a prerequisite.

LOTT 2201 INTRODUCTION TO FIBER OPTICS 16/32/2.0

An introductory course in fiber optics and its application including advantages of fiber, light transmission in fiber, types of fiber, sources, detectors, and connectors. This course will introduce the students to the origins of fiber optics. Fiber optic components, installation, testing, and safety will be the primary focus of this block of instruction. learn the types and specifications of various cables and hot to choose the proper cable for a project. Fiber optic media to Ethernet signal converts mane by 3M Communication Markets Division will be employed in various networking labs. Reinforcing the necessity to integrate fiber optic cabling and signal conversion. Cable color coding, terminations, testing, and inspection will be covered in detail. The Fiber Optics Association Certification and 3M Certification, Fusion Splice Certification will be presented to the student upon successful completion of this course. Upon successful completion of the course be certified by FOA as a CFOT.

AERO 2450 AEROSPACE SYSTEMS 32/64/4.0

This course introduces hydraulic, pneumatic, electrical, propulsion systems, mechanical, and familiarization of fluid system components, characteristics, and applications.

CETT 2205 CABLE AND WIRE HARNESS ASSEMBLIES 16/32/2.0

Students will be introduced to materials, methods, tests, and acceptability criteria for producing crimped, mechanically secured, or soldered interconnections and the related assembly activities associated with cable and harness assemblies. The intent is to rely on process control methodology to ensure consistent quality levels during the manufacture of products. Upon successful completion of the course be certified by IPC in IPC/WHMA-A-620C

CETT 1401 ELECTRONIC CIRCUITS I 32/64/4.0

This course covers communications circuits and principles including amplitude, frequency, and phase modulation, transmitters, receiver, transmission lines, antennas, and wave propagation. This course will include an introduction to Microwave, Satellite, Cellular, cable-based communication systems, cellular telephones, WI-FI and Bluetooth technologies. **CETT 1402 Circuits II and AERO 2440 Aerospace Electronics Systems Are a prerequisite.**

AERO 2255 AEROSPACE TEST AND MEASUREMENTS 16/32/2.0

This course covers electrical and mechanical testing procedures, equipment, measurements, and instrumentation involved in aerospace systems. Verification of tool and equipment calibration is also covered.

CDVI 2201 CAREER DEVELOPMENT/INTERNSHI 32/0/160/5.0

Upon completion of the career portion of this course students will be able to produce a resume, a cover letter, and a reference list; complete a job application; do research on businesses as part of an exercise or a job search; sit for an interview with an expert in their field; and describe sources provided in the Learning Resource Center.

Upon completion of the internship portion students will be able to integrate the knowledge and skills learned in the program; work under the direction and supervision of business owners, managers, supervisors, or industry experts; maintain ethical and professional work standards while applying classroom learning; and demonstrate in a workplace environment the technical skills acquired throughout the program.

ASSOCIATE OF APPLIED SCIENCE IN ELECTRONICS ENGINEERING TECHNOLOGY

Available at 9451 Diana Drive Campus

Individuals portrayed in photos are actual students, graduates, or employees of WTC.

Career Opportunities in Electronics Engineering Technology

Electronics Engineering Technicians held about 105,00 in 2021. Electronics engineering technicians help engineers design and develop computers, communications equipment, medical monitoring devices, navigational equipment, and other electronic equipment. They often work in product evaluation and testing and use measuring and diagnostic devices to adjust, test, and repair equipment. They are also involved in the manufacture and deployment of equipment for automation. Electronics engineering technicians work closely with electrical engineers. They work primarily in manufacturing settings, engineering services, the federal government facilities, research-and-development laboratories, and the utilities industry. Employment of electronics engineering technicians is projected to grow 2 percent from 2021 to 2031, slower than the average for all occupations. Employment of these technicians is projected to decline in many manufacturing industries and in the federal government. 2021 to 2031. (Source: D.O.L. *Occupational Outlook Handbook*, 2021-2031). https://www.bls.gov/ooh/architecture-and-engineering/electrical-and-electronics-engineering-technicians.htm

Labor Market Information (2020 through 2031 Projections)	Texas	National
Labor Market Information Employment 2020	6,146	105,000
Projected Employment 2031	7,228	No change
Absolute Change 2020-2031	1,082	No change
Percent Change 2020-2031	17.6%	0%
Average Hourly Wage 2031	$30.00	$30.60
Average Openings per year due to Replacement	Not available	Not available
Average Openings per year due to Growth	Not available	Not available
Source: The Labor Market and Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

AAS DEGREE IN ELECTRONICS ENGINEERING TECHNOLOGY

COURSES 1-20 1524 CLOCK HOURS
64.0 SEMESTER CREDIT HOURS

Educational Objectives

Graduates of this program will gain valuable knowledge in DC/AC circuits, solid state circuits, digital circuits, PLCs, industrial electronics, basic robotic operation, pneumatics, fiber, and soldering. Graduate will also gain valuable hands-on experience in a diverse set of technical areas.

Certifications

The experience gained from this program will prepare the student for the following professional certification examinations: the ISCET Associate Level Certified Electronics Technician (CET) certification; the Certified Fiber Optics Technician certification through FOA; and IPC certifications in Soldering (J-STD-OOI) and Wire Harnesses (WHMA-A-620C); OSHA 30-hour industrial certification and Industrial Journevman certification.

Graduation Requirements

Students graduating from this program are required to achieve a minimum of two of the professional certifications and must meet general graduation requirements.

Technical Standards and Essential Functions

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program.

1. .Must be able to see details at close range (within a few feet of the observer)
2. Must be able to match or detect differences between colors, including shades of color and brightness.
3. Must possess sufficient finger dexterity and steadiness to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble objects
4. Must possess sufficient manual dexterity and steadiness to quickly move the hand, the hand together with the arm, or two hands to grasp, manipulate, or assemble objects
5. Must be able to perform physical activities that require considerable use of your arms and legs moving your whole body, such as climbing, lifting, balancing, walking, stopping, and handling of materials
6. Must be able to operate computers and computer systems (including I-ardware and software) to program, setup functions, enter data, or process information
7. Must possess the ability to utilize computers and perform basic computer functions with programs in the Microsoft Suite, Word, Outlook, and Excel.

ASSOCIATE OF APPLIED SCIENCE IN ELECTRONICS ENGINEERING TECHNOLOGY

#	Course	Title	Hrs.	Lec/Lab/ Int	% On Campus/ Online	Semester Credit Hours
1	FOU 101	Foundations	48	26/22	80/20	2.0
2	ITSC 1401	Computer Applications	96	10/86	80/20	3.5
3	ENGL 1301	English Composition	48	48/0	0/100	3.0
4	ITSC 1411	Computer Technology	96	10/86	80/20	3.5
5	MATH 1314	College Algebra	48	48/0	50/50	3.0
*6	PHYS 1401	College Physics I	96	12/64	50/50	4.0
7	ETIC 1220	Industrial Safety and Quality	48	16/32	80/20	2.0
*8	CETT 1401	Electronic Circuits I	96	10/86	80/20	4.0
9	SCOM 1315	Fundamentals of Human	48	48/0	0/100	3.0
10	CETT 1402	Electronic Circuits Il	96	12/64	80/20	4.0

11	LOTT 2201	Introduction to Fiber Optics	48	16/32	80/20	2.0
12	CETT 1425	Digital Fundamentals		12/64	80/20	4.0
13	CETT 1204	High Reliability Soldering	48	16/32	80/20	2.0
14	ELMT2401	Programmable Logic Controllers	96	12/64	80/20	4.0
15	CETT 2205	Cable and Wire Harness	48	16/32	80/20	2.0
16	PSYC 2301	General Psychology	48	48/0	0/100	3.0
17	ELMT 2202	Advance Programmable Logic	48	16/32	80/20	2.0
18	RBTC 2239	Robot Programming and		16/32	80/20	2.0
19	ELMT 2433	Industrial Electronics	96	12/64	80/20	4.0
20	ELMT 2205	Pneumatics	48	16/32	80/20	2.0
21	CDVI 2201	Career Development/Internship	192	32/0/160	100/00	5.0
Total Hours and Credits – AAS Degree in Electronics Engineering Technology			**1536**	**574/802/160**		**64.0**

NOTE: The order of classes may differ from that included in the program outline. Courses with prerequisites are denoted in the course outline with an asterisk (*). ***Courses flagged as (Gen Ed) are described in the General Education Courses section of this Catalog.***

ELECTRONICS ENGINEERING TECHNOLOGY COURSE DESCRIPTIONS

FOU 101 FOUNDATIONS 26/22/2.0

Upon completion of this course, the student will be able to identify and state individual educational goals and formulate specific plans to work towards the goals; design and implement a personal time management plan; identify preferred learning style and employ strategies for effective reading and studying; describe and employ critical thinking and creative thinking skills; describe effective listening, note taking, memory retention, writing skills, communication skills, and methods for improving these skills; describe and use various methods of exam preparation; explain test anxiety and list strategies for reducing it; describe the interview process and strategies for successful interviewing; create a resume and a cover letter; perform basic computer, email, and internet operations; create simple word documents, design and deliver a simple presentation; and use the learning management system (Canvas) that will be used for the distance education platform.

ITSC 1401 COMPUTER APPLICATIONS 10/86/3.5

Introduces the basic features of Microsoft Office, Windows basics, and file management. Students will develop familiarity with Word, Excel, Access, PowerPoint, email, and Internet basics.

ITSC 1411 COMPUTER TECHNOLOGY 10/86/3.5

This course introduces basic computer hardware, operating software, and networks. It covers installing, upgrading, configuring, troubleshooting, and preventive maintenance of computers and networks with additional elements of soft skills and security.

ETIC 1220 INDUSTRIAL SAFETY AND QUALITY 16/32/2.0

This course covers identification of hazards, personal protective equipment, safe practices, and protection of personnel, property, and equipment in the industrial environment. Safety procedures, including OSHA regulations

and hazardous materials handling, are also covered. Includes hands-on approach to the identification, use and care of tools and equipment used in industrial systems.

CETT 1401 ELECTRONIC CIRCUITS I 32/64/4.0

The course introduces the basic concepts and theory of electricity and magnetism with an emphasis on passive electrical elements such as resistors, capacitors, and inductors (RCL) and their applications in alternating current (AC) or direct current (DC) circuits. Students also learn how to build, test, and analyze simple RCL circuits in the laboratory, and use simulation software and test equipment such as power supply, multimeter, signal/function generator, and oscilloscope. Related mathematics and physics concepts are developed alongside these concepts of electrical engineering. **PHYS 1401 College Physics is a prerequisite.**

CETT 1402 ELECTRONIC CIRCUITS II 32/64/4.0

The course introduces the basic concepts and theory of electronic solid-state devices with an emphasis on active electrical elements such as diodes, transistors and integrated circuits, and their applications in AC and DC circuits. Students also learn how to build, test, and analyze simple solid-state circuits in the laboratory, and use simulation software and test equipment such as power supply, multimeter, signal/function generator, and oscilloscope. Related mathematics and physics concepts are developed alongside concepts of electrical engineering. **CETT 1401 Circuits I is a prerequisite.**

LOTT 2201 INTRODUCTION TO FIBER OPTICS 16/32/2.0

An introductory course in fiber optics and its application including advantages of fiber, light transmission in fiber, types of fiber, sources, detectors, and connectors. This course will introduce the students to the origins of fiber optics. Fiber optic components, installation, testing, and safety will be the primary focus of this block of instruction. learn the types and specifications of various cables and hot to choose the proper cable for a project. Fiber optic media to Ethernet signal converts mane by 3M Communication Markets Division will be employed in various networking labs. Reinforcing the necessity to integrate fiber optic cabling and signal conversion. Cable color coding, terminations, testing, and inspection will be covered in detail. The Fiber Optics Association Certification and 3M Certification, Fusion Splice Certification will be presented to the student upon successful completion of this course. Upon successful completion of the course be certified by FOA as a CFOT.

CETT 1425 DIGITAL FUNDAMENTALS 32/64/4.0

This course is an entry level course in digital electronics to include numbering systems, logic gates, Boolean algebra, and combinational logic. Different types of circuits such as of flip-flops, shift registers, adders, display decoders, multiplexers and demultiplexers, semiconductor memories, and other digital devices. The student is also introduced to troubleshooting techniques. Laboratory exercises during this course will provide the student practical experience to reinforce the theory. Upon completion of this course, the student will be able to convert between all number systems used in digital electronics, use gates to perform logic functions using Boolean Equations, analyze sequential logic devices used in counters and shift registers, and build and troubleshoot adder and subtractor circuits. Students will be able to convert analog inputs into digital outputs and vice versa. CETT 1402 **Circuits Il is a prerequisite.**

CETT 1204 HIGH RELIABILITY SOLDERING 16/32/2.0

An explanation of the automated and hand soldering processes plus J STD-OOI E and soldering training including an understanding of the J STD- 001 criteria for acceptable solder connections as well as component preparation, hand soldering, repair, packaging, inspection, ESD control, and process control with hands on experience and critique for assembly and hand soldering of wires and terminals, through-hole components and surface mount components. Upon completion of this course, the student will be able to understand the J-STD-OOI, the requirements for soldered electrical and electronic components, hands on practice of assembly and hand soldering of components. Students will also experience a self-critique of work and application of the standard, understanding of the causes, effects, and contra electric-static discharge as it applies to electronic assemblies. Students will have familiarity with other material

and process standards related to the soldering standard, as with inspection and repair techniques. Lastly, students will demonstrate familiarity with process control and statistical process control, certification as an Application Specialist to the J STD-OOI Standard by IPC.

ELMT 2401 PROGRAMMABLE LOGIC CONTROLLERS 32/64/4.0

The student will learn the how to identify and explain the main design characteristics, internal architecture, and operating principles of programmable logic controllers. Students will describe and identify the characteristics of commonly used input and output devices, and develop ladder programs for the logic functions AND, OR, NOR, NAND, NOT and XOR. Students will learn how to develop ladder programs involving internal relays, timers, counters, latching circuits and flashers, and will be required to create programs using ladder logic for the Direct Logic and Siemens PLC's. Upon completion of this course, the student will be able to identify Direct Logic and Siemens PLC components, convert logic gates to ladder diagram, and program combinational logic circuits. Students will also learn/program momentary/latching start circuits, learn/program timers and counters, and learn/program cycle timer's/flasher circuits. CETT 1425 Digital Fundamental is a prerequisite

CETT 2205 CABLE AND WIRE HARNESS ASSEMBLIES 16/32/2.0

Students will be introduced to materials, methods, tests, and acceptability criteria for producing crimped, mechanically secured, or soldered interconnections and the related assembly activities associated with cable and harness assemblies. The intent is to rely on process control methodology to ensure consistent quality levels during the manufacture of products. Upon successful completion of the course the student will be certified by IPC in IPC/WHMA-A-620C.

ELMT 2202 ADVANCED PROGRAMMABLE LOGIC CONTROLLERS 16/32/2.0

This course will cover advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting, and equipment will be covered. The student will be introduced programmable logic controllers with its symbols, interfaces, memories, programming languages, and PLC ladder logic diagrams. Develop ladder logic to utilize advanced PLC functions; compose a ladder logic program to demonstrate an advanced industrial control application; apply advanced programming techniques for specialized applications. Upon completion of this course, the student will be able to identify characteristics of a PLC and its functions and demonstrate the functions of counters, timers, latching circuits, and interrupts. Students will develop advanced ladder logic diagrams using different PLC scenarios. **ELMT 2401 Programmable Logic Circuits is a prerequisite.**

RBTC 2239 ROBOT PROGRAMMING AND DIAGNOSTICS 16/32/2.0

Students will learn the programming of industrial robotics, development of programming techniques, and the diagnosis of faults in systems. The robotics course brings together aspects of modern electronic processing methods and system design, to develop automated systems that are applicable in many areas including modern manufacturing, aerospace, and nuclear industries. A range of algorithms, tools and development environments are covered, including control systems, micro controller architecture, and programmable digital systems, which enable sophisticated systems to be developed, and implemented in real world applications. The robotics course aims to provide graduates with a broad and deep understanding of technology and current practice in electronic engineering and its applications in robotics including digital systems and control systems. Upon completion of this course, the student will be able to identify what a robot is and its components, create a robotic script using a coordinate system, and develop software base programs using different scenarios.

ELMT 2433 INDUSTRIAL ELECTRONICS 32/64/4.0

This course will cover devices, circuits, and systems primarily used in automated manufacturing and/or process control. In- depth coverage of basic motor controls theory, ladder logic, and control wiring progress to advanced motor controls applications such as variable frequency drives, DC drives, and Programmable Logic Controllers (PLC)

integration. Also, computer control and interfacing between mechanical, electrical, electronic, and computer equipment will be studied. Upon completion of this course, the student will be able to describe how electronic input and output circuits are used to control automated manufacturing and/or process systems and identify basic elements used for input, output, timing, and control and define how programmable electronic systems use input data to alter output responses. Students will troubleshoot a representative system and demonstrate how system operation can be altered with software programming. **ELMT 2202 Advanced Programmable Logic Circuits is a prerequisite**.

ELMT 2205 PNEUMATICS 16/32/2.0

This training course is designed to provide necessary skills in pneumatics fundamentals. The training curriculum includes an understanding of pneumatics circuits and applications. Upon completion of this course, the student will be able to define pneumatics, list the advantages and disadvantages of pneumatics, list the basic components of pneumatic system, and read pneumatic schematics. Students will be able to interpret pneumatic symbols and troubleshoot pneumatic components.

CDVI2201 CAREER DEVELOPMENT/ INTERNSHIP 32/0/160/5.0

Upon completion of the career portion of this course students will be able to produce a resume, a cover letter, and a reference list; complete a job application; do research on businesses as part of an exercise or a job search; sit for an interview with an expert in their field; and describe sources provided in the Learning Resource Center.

Upon completion of the internship portion students will be able to integrate the knowledge and skills learned in the program; work under the direction and supervision of business owners, managers, supervisors, or industry experts; maintain ethical and professional work standards while applying classroom learning; and demonstrate in a workplace environment the technical skills acquired throughout the program.

ASSOCIATE OF APPLIED SCIENCE IN COMPUTER SCIENCE

Available at 9451 Diana Drive Campus

Individuals portrayed in photos are actual students, graduates, or employees of WTC.

CAREER OPPORTUNITIES IN COMPUTER SCIENCE

Computer support specialist / computer programmers held about 99,433 jobs in 2020. They work in many different industries, including information technology (IT), education, finance, healthcare, and telecommunication. It is projected to grow 14.83 percent from 2020 to 2030, much faster than the average for all occupations. More support services will be needed as organizations upgrade their computer equipment and software. The computer support staff will be needed to respond to the installation and repair requirements of increasingly complex computer equipment and software. Most computer support specialists have full-time work schedules; however, many do not work typical 9-to-5 jobs. Because computer support is important for businesses, support specialists must be available 24 hours a day (Source: D.O.L. Occupational Outlook Handbook, 2020-2030 Edition).

Labor Market Information (2016 thru 2026 Projections)	Texas	National
Labor Market Information Employment 2020	99,433	461,100
Projected Employment 2030	116,718	470,200
Absolute Change 2020-2030	17,305	49,900
Percent Change 2020-2030	14.83%	-.33
Average Hourly Wage 2020	$29.75	$37.10
Average Openings per year due to Replacement	9704	Not available
Average Openings per year due to Growth	Not available	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

AAS DEGREE IN COMPUTER SCIENCE
1-20
1806 CLOCK HOURS
76.0 SEMESTER CREDIT HOURS

EDUCATIONAL OBJECTIVES
Graduates with the Associate of Applied Science Degree in Computer Science gains experience in the following areas: computer hardware, operating systems, local area networking, wide area networking, cabling, router and switch configurations, programming, server and client administration, network security, sales, and customer service. They'll be able to solve problems and communicate effectively. The skill set presented in this program will prepare the graduate for entry-level careers in PC service and repair, network support, desktop support, software developer, and network security administration.

CERTIFICATIONS: The experience gained from this program prepares students for the following professional certifications: CompTIA A+, CompTIA Net+, CompTIA Sec+, CompTIA Linux+, Cisco CCNA, CompTIA Server +, PCEP - Certified Entry-Level Python Programmer, Fiber Optics (FOA), and CompTIA PenTest +.

GRADUATION REQUIREMENT: Students graduating from this program are required to earn a minimum of one of the professional certifications and must meet general graduation requirements.

TECHNICAL STANDARDS AND ESSENTIAL FUNCTIONS
Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. Must be able to apply critical thinking / problem solving skills
2. Must be able to analyze a system's problem and apply principles of computing, networking, and security to identify solutions
3. Must be able to design, develop, and improve computer programs
4. Must be able to solve basic programming problems
5. Must be able to design, implement, and evaluate a computing-based solution and network infrastructure
6. Must be able to implement cybersecurity solutions that comply with global practices
7. Must be able to describe and explain fundamentals of networking, security, hardware, and software
8. Must be customer service oriented and willing to work in a team
9. Must be able to climb ladders and use cabling tools
10. Must be able to work under various environmental conditions

NOTE: The order of classes may differ from that shown in the program outline below.

ASSOCIATE OF APPLIED SCIENCE IN COMPUTER SCIENCE

#	Course	Title	Hrs.	Lec/ Lab/ Total	% on Campus/ Online	Semester Credit Hours
1	FOU 101	Foundations	48	26/22	80/20	2.0
2	CPMT 1405	IT Essentials: PC Hardware and Software	96	32/64	80/20	4.0
3	ENGL 1301	English Composition (Gen Ed)	48	48/0	0/100	3.0
4	CPMT 1445	Computer Systems Troubleshooting	96	32/64	80/20	4.0
5	ITSC 1416	Linux Installation and Configuration	96	32/64	80/20	4.0
6	ITNW 1458	Network+	96	32/64	80/20	4.0
7	ITSY 1400	Operating System Security	96	32/64	80/20	4.0
8	MATH 1314	College Algebra and Trigonometry (Gen Ed)	48	48/0	50/50	3.0
9	CS 1401	Introduction to Computer Science	96	32/64	80/20	4.0
10	LOTT 2201	Fiber Optic and Cabling	48	16/32	80/20	2.0
11	COSC 1437	Introduction to Programming	96	32/64	80/20	4.0
12	PHYS 1401	College Physics (Gen Ed)	96	32/64	50/50	4.0
13	ITMT 1457	Server Administration Fundamentals	96	32/64	80/20	4.0
14	ITCC 1414	Cisco - Introduction to Networks	96	32/64	80/20	4.0
15	SCOM 1315	Fundamentals of Human Communication (Gen Ed)	48	48/0	50/50	3.0
*16	ITCC 1444	Cisco - Switching, Routing and Wireless Essentials	96	32/64	80/20	4.0
17	ITCS 2201	Customer Service Skills for the Technical World	48	16/32	80/20	2.0
*18	ITCC 2420	Cisco - Enterprise Networking, Security and Automation	96	32/64	80/20	4.0
19	PSYC 2301	General Psychology (Gen Ed)	48	48/0	0/100	3.0
20	ITSY 2472	Ethical Hacking	96	32/64	80/20	4.0
21	CPMT 2499	Professional Development/Internship	222	32/0/190	80/20	6.0
Total Hours and Credits AAS Degree in Computer Science			**1806**	**708/908/190**		**76.0**

NOTE: Courses with prerequisites are denoted in the course outline with an asterisk (*).

NOTE: Courses flagged as (Gen Ed) are described in the General Education Courses section of this Catalog.

COMPUTER SCIENCE COURSE DESCRIPTIONS

FOU 101 FOUNDATIONS 48/0/2.0

Upon completion of this course, the student will be able to identify and state individual educational goals and formulate specific plans to work towards the goals; design and implement a personal time management plan; identify preferred learning style and employ strategies for effective reading and studying; describe and employ critical thinking and creative thinking skills; describe effective listening, note taking, memory retention, writing skills, communication skills, and methods for improving these skills; describe and use various methods of exam preparation; explain test anxiety and list strategies for reducing it; describe the interview process and strategies for successful interviewing; create a resume and a cover letter; perform basic computer, email, and internet operations; create simple word documents; design and deliver a simple presentation; and use the learning management system (Canvas) that will be used for the distance education platform.

CPMT 1405 IT ESSENTIALS PC HARDWARE AND SOFTWARE 32/64/4.0

Upon completion of this course, students will be able to explain how the internal components of a computer work; assemble a computer system; install an operating system; and install/connect associated peripherals; troubleshoot using system tools and diagnostic software; and use simulation and virtual software to investigate networking concepts and analyze network behavior.

CPMT 1445 COMPUTER SYSTEM TROUBLESHOOTING 32/64/4.0

Upon completion of this course students will be able to describe computer system troubleshooting techniques and repair procedures including advanced diagnostic test programs and the use of specialized test equipment; and develop hardware and software troubleshooting techniques and perform procedures used in troubleshooting.

ITSC 1416 LINUX INSTALLATION AND CONFIGURATION 32/64/4.0

Upon completion of this course students will be able to perform Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application installation; install and administer a Linux system and demonstrate proficiency with Linux utilities, commands, and applications; and identify and resolve security-based issues and integrate a Linux system into an existing network.

ITNW 1458 NETWORK + 32/64/4.0

Upon completion of this course students will be able to prepare for the Computing Technology Industry Association (CompTIA) Network+ certification exam; prepare for a career as a network professional; identify and define terminology, hardware, and software components of computer networks; utilize equipment, protocols, and topologies to differentiate among various network systems; demonstrate skills in installing network hardware, software, and cable; troubleshoot network connectivity; configure network protocols; and install and configure network client software.

ITSY 1400 OPERATING SYSTEM SECURITY 32/64/4.0

Upon completion of this course students will be able to safeguard computer operating systems by demonstrating server support skills and designing and implementing a security system; identify security threats and monitor network security implementations; use best practices to configure operating systems to industry security standards; identify network security risks; explain security design; describe monitoring solutions; identify sources of computer threats, evaluate potential practices, tools, and technologies to protect individual network systems; establish and sustain an operating system security plan utilizing systems and application security tools; implement procedures to secure and monitor audit logs and set system administrator alerts; develop an

organizational operating system security plan that provides for periodic reviews of security policies, procedures, authorized users lists, and software update patches.

CS 1401 INTRODUCTION TO COMPUTER SCIENCE 32/64/4.0

Upon completion of this introductory course students will receive a solid grounding in the fundamental concepts of this discipline. They will be able to understand algorithms, pseudocode, logical thinking, computer organization, evolution of programming languages, hardware, software, virtual machines, and the social issues in computing. Students will start building and designing a computer system. They will create a virtual environment by using tools as graphical user interface, editors, language translators, file systems, and debuggers. By the end of this course student will overview some concepts about intellectual property and national security concerns, the erosion of personal privacy, and the political impact of the proliferation of fake news distributed using social media.

LOTT 2201 FIBER OPTIC AND CABLING 16/32/2.0

Upon completion of this course students will be able to explain fiber optics and its application, including advantages of fiber, light transmission in fiber, types of fiber, sources, detectors, and connectors; tell the origins of fiber optics; focus on fiber optic components, installation, testing, and safety; tell the types and specifications of various cables and how to choose the proper cable for a project; use Fiber optic media to Ethernet signal converts mane by 3M Communication Markets Division in various networking labs; integrate fiber optic cabling and signal conversion; demonstrate the use of cable color coding, terminations, testing, and inspection; explain Fiber Optics Association Certification and 3M Certification and Fusion Splice Certification; and sit for an exam to become certified by FOA as a CFOT.

COSC 1437 INTRODUCTION TO PROGRAMMING 32/64/4.0

Upon completion of this course students will be able to accomplish coding tasks related to the essentials of programming in a programming language. Students will learn concepts of computer programming, the syntax, and semantics of the programming language, they will develop the skills in resolving typical implementation challenges. Students will understand the logic and structure, literals, variables, and numeral systems, operators and data types, I/O operations, control flow mechanisms, data collections, functions, and exceptions.

ITMT 1457 SERVER ADMINISTRATION FUNDAMENTALS 32/64/4.0

Upon completion of this course students will learn about the different physical servers, operating systems, storage, networking, security, and cloud-based solutions. They will understand how to install, configure, maintain servers. This course will cover storage technologies, fault tolerance requirements and server security. Students will understand how the remote administration works, they will create and use virtual machines, troubleshoot issues in a server room, and the importance of the disaster recovery.

ITCC 1414 CISCO INTRODUCTION TO NETWORKS 32/64/4.0

Upon completion of this course students will be able to explain networking architecture, models, protocols, and networking elements to support the operations and priorities of companies; explain the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum; build simple LANs; perform basic configuration on routers and switches; implement IP addressing schemes; and understand foundational network security.

ITCC 1444 CISCO SWITCHING, ROUTING AND WIRELESS ESSENTIALS 32/64/4.0

Upon completion of this course students will be able to focus on switching technologies and router operations that support small-to-medium business networks, including wireless local area networks (WLAN) and security

concepts; perform basic network configuration and troubleshooting; to perform basic network configuration and troubleshooting; identify and mitigate LAN security threats; and configure and secure a basic WLAN.

ITCC 2420 CISCO ENTERPRISE NETWORKING, SECURITY AND AUTOMATION 32/64/4.0
Upon completion of this course students will be able to describe the architectures and considerations related to designing, securing, operating, and troubleshooting enterprise networks; explain wide area network (WAN) technologies and quality of service (QoS) mechanisms used for secure remote access along with the introduction of software-defined networking, virtualization, and automation concepts that support the digitalization of networks; configure advanced routing and switching, design, secure, operate and troubleshoot enterprise networks; conduct implementation of WAN technologies and QoS mechanisms; and demonstrate understanding of software-defined networking, virtualization, and automation concepts.

ITCS 2201 CUSTOMER SERVICE SKILLS FOR THE TECHNICAL WORLD 16/32/2.0
Upon completion of this course, students will learn the importance of the customer support and the help desk role on ground or remotely. They will learn how to help customers use technology to be more efficient in their workplace, how interact with them and also will provide creative and cost-effective solutions.

ITSY 2472 ETHICAL HACKING 32/64/4.0
Upon completion of this course, students will be able to assemble network defense tools; differentiate between authorized and unauthorized activity on a network; respond to a breach in security using countermeasures designed to minimize the impact of the breach on the network; and document network events; and present an analysis of network breach and plan for remediation. Students will assess network security design and audit network system based on security design; use relevant tools to assure security requirements; and explain how to review security policies and procedures on a regular basis.

CPMT 2499 PROFESSIONAL DEVELOPMENT / INTERNSHIP 16/16/190/6.0
Upon completion of the career portion of this course students will be able to produce a resume, a cover letter, and a reference list; complete a job application; do research on businesses as part of an exercise or a job search; sit for an interview with an expert in their field; and describe sources provided in the Learning Resource Center.

Upon completion of the internship portion students will be able to describe situations that occur during the daily operation of an Information Technology Department; apply the knowledge and skills they have learned in the previous courses in the workplace environment; describe standard operating procedures for the IT industry; and add work experience to their resume.

The student entering the internship program must have completed all courses of the Information Technology program before being placed at a participating site.

ASSOCIATE OF APPLIED SCIENCE IN PHYSICAL THERAPIST ASSISTANT

Available at 9451 Diana Drive Campus

Individuals portrayed in photos are actual students, graduates, or employees of WTC.

Career Opportunities for Physical Therapists Assistants

Overall employment of physical therapist assistants and aides is projected to grow 24 percent from 2021 to 2031, much faster than the average for all occupations. Approximately 25,500 openings for physical therapist assistants and aides are projected each year over the decade. Many of those openings are expected to result from replacing workers who transfer to different occupations or exit the labor force, such as for retirement. Demand for physical therapy services is expected to increase in response to the health needs of an aging population, particularly the large baby-boom generation. Physical therapist assistants, sometimes called PTAs, work under the direction and supervision of physical therapists. They help patients who are recovering from injuries and illnesses regain movement and manage pain. Physical therapist assistants are involved in the direct care of patients (Source: D.O.L. *Occupational Outlook Handbook*, 2018-2019 Edition https://www.bls.gov/ooh/healthcare/physical-therapist-assistants-and-aides.htm).

Labor Market Information (2021 through 2030 Projections)	Texas	National
Labor Market Information Employment 2021	6,321	140,800
Projected Employment 2031	9,164	174,700
Absolute Change 2021-2031	2843	33,900
Percent Change 2021-2031	45%	24%
Average Hourly Wage 2021	$34.44	$23.64
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

AAS DEGREE IN PHYSICAL THERAPIST ASSISTANT PROGRAM
COURSES 1-20
1745 CLOCK HOURS
74 SEMESTER CREDIT HOURS (ACCSC, TWC & THECB)

Educational Objectives
Upon completion of the program, students will be able to utilize treatment techniques that include taking vital signs, goniometry, manual muscle testing, activities of daily living, functional training, use of assistive/adaptive devices, balance and gait training, developmental activities, electric current, hydrotherapy, therapeutic use of heat and cold, patient and family education, therapeutic exercise, therapeutic massage, traction, ultrasound, universal precautions, and wound care. Graduates will be able to demonstrate clear written/oral communication and documentation; follow legal guidelines; and make ethical decisions. Students will gain proficiency in communication and interaction with the patient, family members and other healthcare team members.

Upon completion of WTC's accredited program of physical therapist assistant education, students may be qualified to take the PTA National Physical Therapy Exam (NPTE) and apply for state licensure. Licensure requirements vary by state. Once a license is granted, the individual will assume the role of an entry-level licensed physical therapist assistant providing safe and effective clinical treatment in such working environments as home health care, clinics, hospitals, and nursing homes. Currently in Texas, every two years, 20 hours of continuing education (that includes a mandatory two-hour credit ethics course) is required to renew a state license.

Entrance Requirements
The licensed Physical Therapist Assistant is a healthcare professional who works under the supervision of a licensed Physical Therapist. The Physical Therapist Assistant will implement treatment based on the established plan of care and treat a variety of patient populations from pediatrics to geriatrics.

WTC has developed an application process for the PTA program that is intended to be non-discriminatory and objective. The criteria noted in the point summary sheet from which the applicants are selected is irrelevant of race, color, national origin, sex, disability, age, veteran status, religion, or any other protected status. In order to ensure optimal objectivity with the interview process, the following measures are taken: all interviewees will be interviewed utilizing the same set of predetermined questions; sit for a panel consisting of three (3) members, (including a practicing clinician not affiliated with WTC); be assessed with a grading system that is based on the "Generic Abilities" developed by the Physical Therapy program, University of Wisconsin-Madison, May et al, *Journal of Physical Therapy Education* 9-1, Spring 1995.

Admission to the PTA program is a selective process. It is a competitive process, and all applicants will be ranked based on a point system. Therefore, application to the program does not guarantee admission into the program. Enrollment of PTA students is limited to a maximum of 24 students each year. The "point system" will take into consideration educational credentials; grade point average; Wonderlic Scholastic Exam score; Observation/Experience Hours (minimum of two clinical settings); onsite essay; letters of recommendation, and panel interview.

Admission to the Physical Therapist Assistant program begins with meeting with a WTC admissions representative. At that time, the prospective student will be informed about the expectations and qualifications necessary for admission into the program, including the need for immunizations; volunteer hours; background check; physical examination by a licensed health practitioner (M.D., D.O., P.A., or A.R.N.P.); CPR certification; and an admissions panel interview. This information is also posted on the college website. Students accepted into the program must be physically, mentally, and emotionally capable of completing this program.

The WTC PTA applicant must have a minimum of a high school diploma or equivalency certificate (GED) and be at least 18 years of age. The PTA admission process will be completed as follows:

1. Show a minimum of 50 volunteer/observation hours meeting the following criteria: Total hours must include a minimum of two different settings and may include these: acute care, outpatient clinic, rehabilitation facility, educational therapy setting, home health therapy, and/or long-term care facility.
2. Two letters of recommendation from an appropriate source, e. g., previous employers, teachers, instructors/mentors. Not acceptable are family members, friends, colleagues. A minimum of one letter of recommendation from a clinical practitioner is required.
3. Arrange for an official transcript that must be submitted DIRECTLY from the post-secondary institution to WTC and on to the Program Director (see the application for details). The transcript must show a minimum of 2.75 GPA in secondary or post-secondary education (or minimum score of 500 for those applying with a GED).
4. Applicants must submit the completed application package by the deadline date. Applicants whose applications are incomplete and/or late (postmarked or delivered in person) must reapply for the next application cycle.
5. Applications are screened and those who submit complete applications that meet the minimum requirements will be invited for a panel interview. A brief on-site essay will be required. The applicant will be sent a letter of receipt informing them of any missing documents and/or failure to meet any criteria with a reminder of the deadline date for completing the application.
6. The PTA selection committee will summarize the final applications and choose the students for the incoming class. Accepted students will be notified via mail and given a deadline to accept the position and will be required to have all necessary immunizations; a physical examination done by a physician, or other healthcare provider; CPR certification; and completion of a criminal background check done at the applicant's expense.
7. Alternate student and denial notifications will be sent by mail. An up-to-date shot record, (to include TB test and Hepatitis vaccine); at least one of the series initiated for the Hepatitis B series vaccine are required prior to admission, and the completed series completed prior to the first clinical rotation.

Note: All prerequisites listed must be completed prior the start of the class. Even if a student is enrolled, the individual cannot begin participating in class until all prerequisites are completed.

The following immunizations are required for all accepted PTA applicants:

If an immunization record is provided that show this series, a titer's test will still be required to prove immunity for Hep B, MMR and Varicella.

1. Tetanus (Td or DTP): Tdap, One immunization within the past 10 years.

2. Measles, Mumps, Rubella (MMR): Two inoculations from childhood should be shown on the records. If only one is shown, then a recent inoculation as an adult must also be shown. If none from childhood can be shown, then one as an adult is acceptable. Proof of immunity may also be shown by the positive titer result.

3. Varicella Titer (also known as chickenpox): Two inoculations given four weeks apart or provide proof of immunity by the positive titer result.

4. Hepatitis B (Hep. B): A series of 3 injections. Injection #1 is given, #2 is given 30 to 60 days after injection #1. Injection #3 is given 4 to 6 months after #2. If the person waits too long between any of the injections, they may have to begin the entire series over again. Proof of immunity may also be shown with positive titer results.

5. Tuberculosis Skin Test or Chest X-Ray (TB, PPD). If the student tested positive to the skin test or is allergic, they must proof of a current negative TB result (less than one year).

6. COVID exemption will be accepted for review by clinical sites.

Wonderlic Scholastic Exam SLE

The Wonderlic Scholastic Exam (SLE) is administered to applicants to the Physical Therapist Assistant program. If the applicant does not achieve the required scores for the program, they may elect to re-take the exam. Students who take the SLE may take the test and a re-test on the same day. Those wishing to make a third attempt must do so within one to two weeks after the second attempt. Those wishing to re-take the exam after the third attempt must wait six months before their fourth attempt. The applicant will also complete a student survey as part of the Wonderlic exam. The survey results are forwarded to the Program Director for information only.

WTC Success Initiative Program (WTSI)

Students entering the Physical Therapist Assistant Program are required to take a college-readiness assessment (WTSI assessment). This assessment is designed to measure a student's skills in relation to a standard of competence in mathematics, reading, and writing, and is offered during regular business hours.

All new and transfer students who have taken an assessment based on Texas Success Initiative (TSI) at another institution and have met the standard requirement from their previous post-secondary institution are exempt from the WTSI. Those who do not qualify for an exemption must take the WTSI assessment. Any non-exempt student enrolling or transferring into WTC is required to meet the standards of the WTSI in the areas of reading, writing, and mathematics, and the work must be completed by the end of the first semester.

. Students not meeting the minimum standard requirements in reading, writing, and mathematics must complete developmental education to meet the requirements of the WTSI Program.

Students will receive strengthening in any areas of deficiency to complete the necessary requirements for the WTSI. Any fees associated with the WTSI process are included with the published tuition and fees at WTC.

Note: If a student does not successfully complete all aspects of the WTSI program initiative, the student will not be awarded a degree, even if the student successfully completes all coursework in the program.

Graduation Requirements

Students graduating from this program must meet general graduation requirements.

Expected Student Outcomes

WTC's expected student outcomes for the physical therapist assistant graduate are as follows. Upon completion of the program students will be able to do the following:

1. Practice in a variety of healthcare settings
2. Practice within the laws and regulations of the state of Texas
3. Take the state licensure exam
4. Apply knowledge and skills to assist in treatment of patients under the direct supervision of a physical therapist
5. Communicate (using oral, written, and non-verbal communication skills) with patients, colleagues, and other members of the healthcare community
6. Adhere to professional, legal, and ethical standards as set forth by the Texas Physical Therapy Practice Act
7. Educate others (patients, caregivers, staff, students, and healthcare professionals) using effective teaching methods
8. Participate in activities that address quality of service

9. Practice in a safe manner to minimize risk to patients, self, and others
10. Deliver patient care that reflects respect for individual and cultural differences
11. Demonstrate a commitment to professional and personal growth and advocate the profession through involvement
12. Document client treatment in a timely and effective manner
13. Perform measurement and assessment techniques within the knowledge and limits of practice to assist supervising physical therapists in monitoring and modifying a plan of care
14. Communicate with the supervising physical therapist in a timely manner to report patient progress or concerns
15. Participate in discharge planning and follow-up care

Programmatic Accreditation

WTC's Physical Therapist Assistant Program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, Virginia, 22314 Telephone:(703)706-3245; email: accreditation@apta.org.
website: www.capteonline.org

Mission Statement of the Physical Therapist Assistant Program

WTC's Physical Therapist Assistant program provides quality academic and clinical training in a caring professional manner in a modern facility to optimize students' learning and experience. The WTC experience, in conjunction with that provided by community partners, will optimize students' abilities to gain state licensure and successfully pursue an ethical and productive career as a physical therapist assistant.

Philosophy of the Physical Therapist Assistant Program

- We believe that the goal of education is to guide the student in a direction of productive work and livelihood in today's dynamic medical society.
- We believe that the role of the instructor is to provide the student a positive environment that is rich in experience, knowledge, and critical thinking to allow for professional and personal growth.
- We believe that the student should be willing to immerse themselves into such an environment and embrace the full potential of what our school and community have to offer.
- We believe that family and community members are key resources in the success of our program, profession, and the student.
- We believe that consuming and utilizing apt knowledge is strategic to the life-long success of the student.
- We believe that the mission and philosophy of the PTA Program are consistent with that of the institution.
- We believe the sequential curriculum design allows students to build on skills acquired from prerequisite courses to increase the level of their knowledge and of their performance so that they become an entry-level PTA who will make decisions and behave in a professional manner.
- We believe that the program will provide students the educational guidance to become knowledgeable through theory, competent through the application of skills with hands-on training, and adaptable to become a professional graduate with critical thinking skills.

Clinical Affiliations

Students will be placed in clinical settings for three different affiliations consisting of a minimum of 520 hours throughout the course of the program. Program staff attempts to place students locally when possible; however, clinic sites may require the student to travel locally and/or out of town. All expenses, including travel, lodging, fees, and so on, are the responsibility of the student.

Although the student's input is considered for placement at clinical sites, placement sites are not guaranteed. Decisions are also based on student need (clinically) and site availability. Ultimately, placement decisions are made

at the discretion of the PTA faculty.

Licensure Examination

Students graduating from the program will be awarded an Associate of Applied Science (AAS degree) in Physical Therapist Assistant and may be eligible to take the PTA National Physical Therapy Exam (NPTE) and apply for state licensure. Licensure requirements vary by state. Students must pass the examination and meet the individual state requirements to receive their license to practice as a physical therapist assistant.

Technical Standards and Essential Functions

PTA students are required to perform job duties specific to the profession. Specifically, a PTA student must possess motor and visual skills that enable them to meet program objectives. The following is a list of skills necessary for all PTA students.

1. Sufficient hearing ability is necessary to respond safely and appropriately during patient treatment, for communicating with other healthcare workers, and for patient assessment.
2. Students must have proficient communication in both oral and written English to allow for effective communication with patients, co-workers, and other healthcare workers. Students must also be able to listen, understand, and communicate ideas presented through spoken words and sentences.
3. Students must have sufficient visual acuity for reading and documentation of patient treatment, reading the physical therapist plan of care, and for the assessment of patients using a variety of measuring devices.
4. Students must be physically able to transfer patients safely from a variety of surfaces, e.g., wheelchairs, mats, beds, and so on and to lift equipment needed for patient care. Students must also be able to tolerate standing for extended periods without breaks.
5. Students must have sufficient manual dexterity to perform fine motor tasks such as palpation, measurements, and demonstration of patient activities.
6. Students must be able to complete all written and practical exams and functional job tasks within the required time limits in the classroom and in clinics.
7. Students must demonstrate emotional health to assure good judgment and the critical thinking skills necessary for safe and effective patient care and to maintain a professional demeanor.

Note: Program courses are laid out in a manner that allows students to build their theory and skill from previous courses. Exceptions to this include courses denoted with an asterisk (*). These courses are offered in a concurrent manner with a maximum of three courses at a time being concurrent. Course materials from each course are building blocks of skill and knowledge that cumulatively lead to an entry-level physical therapist assistant competency. Students are required to achieve competency in each course before they can progress to the next set of courses. Students must demonstrate proficiency in treatment skills in the laboratory to receive a passing grade. These measures ensure preparedness for clinical affiliations and patient treatment. Program/Class times are typically 8am to 3pm but will vary.

ASSOCIATE OF APPLIED SCIENCE IN PHYSICAL THERAPIST ASSISTANT

#	Course	Title	Hours	Lec/Lab/ Clinical Affiliation	% On Campus/ Online	Semester Credit Hours
1*	MATH 1314	College Algebra and Trigonometry (Gen Ed)	48	48/0	50/50	3.0
2	HITT 1305	Medical Terminology I	36	36/0	100/0	2.0
3*	PHYS 1401	College Physics (Gen Ed)	96	32/64	50/50	4.0
4	PTHA 1409	Introduction to Physical Therapy	96	52/44	100/0	4.0

5	BIOL 2401	Anatomy and Physiology I	96	52/44	100/0	4.0
6*	ENGL 1301	Composition (Gen Ed)	48	48/0	0/100	3.0
7	BIOL 2102	Anatomy and Physiology II	52	0/52	100/0	1.5
8	PTHA 1513	Functional Anatomy	109	40/69	100/0	4.5
9*	SPCH 1315	Public Speaking (Gen Ed)	48	48/0	50/50	3.0
10	PTHA 1321	Pathophysiology	64	64/0	100/0	4.0
11*	PSYC 2301	General Psychology	48	48/0	0/100	3.0
12	PTHA 1531	Physical Agents	104	60/44	100/0	5.0
13	PTHA 2509	Therapeutic Exercise	100	50/50	100/0	4.5
14	PTHA 1261	Clinical PTA I	140	25/0/115	100/0	4.0
15	PTHA 2305	Neurology	56	56/0	100/0	3.5
16	PTHA 2431	Management of Neurologic Disorders	80	50/30	100/0	4.0
17	PTHA 1361	Clinical PTA II	140	20/0/120	100/0	3.5
18	PTHA 2435	Rehabilitation Techniques	96	58/38	100/0	4.5
19	PTHA 2339	Professional Issues	48	48/0	100/0	3.0
20	PTHA 1561	Clinical PTA III	240	25/0/215	100/0	6.0
Total Hours and Credits AAS Degree in Physical Therapist Assistant			**1745**	**860/435/450**		**74.0**

NOTE: Courses flagged as (Gen Ed) are described in the General Education Courses section of this Catalog.

PHYSICAL THERAPIST ASSISTANT COURSE DESCRIPTIONS

HITT 1305 MEDICAL TERMINOLOGY I 36/0/2.0

Upon completion of this course students will be able to explain word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations, symbols, surgical procedures, medical specialties, and diagnostic procedures. Students will be able to identify and pronounce medical terms; demonstrate correct spelling and usage of medical terms for documentation; and use medical terms in proper context; build and analyze medical terms; and use medical references as resource tools. This is a mandatory core course as it is designed to prepare the student to practice within the field of Physical Therapy.

PTHA 1409 INTRODUCTION TO PHYSICAL THERAPY 52/44/4.0

Upon completion of this course, students will be able to define physical therapy and its role in practical application; delineate differences between a Physical Therapist and a Physical Therapist Assistant; identify the rules and regulations of the Physical Therapist Assistant's scope of practice; identify assistive devices utilized in physical therapy and be able to adjust equipment, including devices for ambulation, wheelchair, and special equipment; demonstrate proper body positioning in varying scenarios; demonstrate appropriate patient interaction through proper communication (verbal and non-verbal) taking into consideration cultural and ethnic differences; identify and demonstrate all transfers using proper body mechanics; use proper medical terminology in documentation and recognize the importance and legal issues of documentation; demonstrate hands-on training of applied clinical skills in a laboratory setting: vital signs, transfers, body mechanics, draping, positioning, and use/adjustment of assistive devices; instruct patients and/or caregivers on safe and proper use of equipment; complete professional conduct self-assessment and review PTA Standards of Ethical Conduct; and recognize individual and cultural differences and respond appropriately in all aspects of physical therapy services.

BIOL 2401 ANATOMY AND PHYSIOLOGY I 52/44/4.0

Upon completion of this course, students will be able to identify and describe the anatomical terms, directions, planes, axis and the cavities of the human body; describe basic organization of the human body and its structural levels; describe the atomic, molecular and cellular structure of human organs; identify the organs of each system, define their function, and describe their locations and the relationship among its parts; and describe human body homeostasis and normal lab values. This is a mandatory core course as it is designed to prepare the student to practice within the field of Physical Therapy.

BIOL 2102 ANATOMY AND PHYSIOLOGY II 0/52/1.5

Upon completion of this course, students will be able to describe the architecture of skeletal muscle; demonstrate palpation of bony landmarks in lab for upper and lower extremities; palpate skeletal muscle during relaxation and active contraction; identify musculature of the upper extremity and trunk: origin, insertion, action, and innervations; identify and label the structures of the heart and cardiovascular system; identify and label the layers of the skin and function of the glands; perform sensory testing with lab partners; identify and describe musculature of the lower extremities: origin, insertion, action and innervations; label the lymphatic structures of the body; label the structures of the lymph nodes and identify and label the respiratory structures; and record RR and HR as well as calculate MHR and THR in a laboratory setting. This is a mandatory core course as it is designed to prepare the student to practice within the field of Physical Therapy.

PTHA 1513 FUNCTIONAL ANATOMY 40/69/4.5

Upon completion of this course, students will be able to perform goniometric measurement and identify normal/abnormal range of motion of articulations; explain the basic principles of physics during movement of the body; analyze biomechanics of the body, axes and planes; differentiate among isometric, isotonic, isokinetic, eccentric, and concentric muscle contractions; demonstrate proper manual muscle testing and apply an appropriate grade; identify gait patterns and courses of the gait cycle; distinguish between normal and abnormal patterns; identify joint structure and function as it relates to normal and abnormal biomechanics and to subsequent treatment; identify and assess joint range of motion (active/active assistive/passive/resisted) and accessory motion as it applies to normal and abnormal function; demonstrate applied skills through laboratory activities and practical examinations.

PTHA 1321 PATHOPHYSIOLOGY 64/0/4.0

Upon completion of this course, students will be able to define pathogenesis and prognosis; identify and explain the pathogenesis of selected diseases relevant to physical therapy intervention and determine aspects of pathophysiology that affect physical therapy treatment; analyze and describe the current response to acute physiological change in patients' conditions; obtain and assess pertinent pharmacological information and its impact on patient care; identify orthopedic impairments of the upper and lower extremities and identify orthopedic impairments of the spine and pelvis; and describe therapeutic management of diseases/conditions commonly encountered in physical therapy.

PTHA 1531 PHYSICAL AGENTS 60/44/5.0

Upon completion of this course, students will be able to describe the pain theory, neurophysiology and behavioral responses to pain and pain management; demonstrate appropriate draping and positioning of a patient for the application of modalities; identify the indications, contraindications, and precautions for all therapeutic modalities, including massage; demonstrate appropriate and safe application of physical agents; discuss biophysical principles as they relate to the application of physical agents; demonstrate proper techniques and identify proper indications of therapeutic massage; demonstrate universal precautions with application of all modalities, wound care, and massage; identify the stages of tissue healing and demonstrate proper documentation of wound care; and complete a professional conduct self- assessment.

PTHA 2509 THERAPEUTIC EXERCISE 50/50/4.5

Upon completion of this course, students will be able to identify and utilize the theory, principles, and techniques of therapeutic exercise; identify and utilize therapeutic exercise for diagnoses; identify and utilize therapeutic exercise for various patient populations and discuss the rationale for the application and modification of therapeutic exercise, identify signs, symptoms, and contraindications to exercises or activity; compare the difference between aerobic and anaerobic exercises and implementation of each through therapeutic exercise and demonstrate progression of patients following given protocols for specific injury/post-surgical rehabilitation including orthopedic and neurologic impairments; and design and implement an appropriate aquatic therapy exercise and demonstrate accurate documentation of therapeutic exercise.

PTHA 1261 CLINICAL PTA I 25/0/115/4.0

Upon completion of this course students will be able to work under a licensed clinical instructor (a Physical Therapist or Physical Therapist Assistant) and will receive hands-on clinical training to demonstrate proficient patient care; use critical problem solving and thinking; describe the use of modalities; develop and instruct home exercise programs; and prepare and deliver a presentation on an appropriate topic. A minimum of one clinical affiliation must be completed in an acute care setting. The student must have a current CPR card, malpractice insurance, health insurance, updated immunization record, and criminal background check to begin their clinical affiliation.

NOTE: Some affiliations may require additional items such as a drug scree, influenza immunization or Covid vaccines.

Upon completion of this course, students will be able to demonstrate all available skills at their clinical affiliation site. Students are required to complete a minimum of 140 hours working under a clinical instructor and present a topic of the student's or clinical instructor's choice at the clinical site and obtain pertinent patient information and utilize it to appropriately treat and document the treatment in the patient's official record. PTA Manual for the Assessment of Clinical Skills (MACS) (a method for evaluating clinical performance and a tool to promote teaching and learning) will be completed by the student and clinical instructor during the clinical affiliation. Mastery of "professional behaviors" and "patient history and chart review" skills from the PTA MACS and receiving "Entry level or Excellent" grades from the clinical instructor are minimum requirements for successful completion of PTHA 2564. The PTA MACS accounts for 60% of the total grade.

PTHA 2305 NEUROLOGY 56/0/3.5

Upon completion of this course, students will be able to identify and explain the components of neuroanatomy as related to physical therapy; describe the pathogenesis, prognosis, and management of neurological disorders commonly treated in physical therapy; and compare motor and sensory pathways of the nervous system as they pertain to physical therapy impairments and treatment. Identify motor milestones of infants and children.

PTHA 2431 MANAGEMENT OF NEUROLOGICAL DISORDERS 50/30/4.0

Upon completion of this course, students will be able to distinguish and critically examine the concepts and principles of comprehensive management of neurological disorders; develop, implement, and revise comprehensive treatment approaches for neurological disorders; and appropriately implement neuromuscular rehabilitation techniques in accordance with a prescribed physical therapy plan of care.

PTHA 1361 CLINICAL PTA II 20/0/120/3.5

Students will be supervised by a licensed clinical instructor (a Physical Therapist or Physical Therapist Assistant) and will receive hands-on clinical training to demonstrate proficient patient care, critical problem solving and thinking, use of modalities, developing and instructing home exercise programs, documenting, and developing and delivering a presentation on an appropriate topic. The area of practice will vary from that of the first clinical affiliation. A minimum of one clinical affiliation must be completed in an acute care setting. The student must have a current CPR card, malpractice insurance, health insurance, an updated immunization record, and a criminal

background check to begin their clinical affiliation. Some affiliations may require additional items such as a drug screen, influenza immunization or Covid vaccines.

Upon completion of this course, students will be able to demonstrate all the available skills at their clinical affiliation site at entry-level for each individual skill according to PTA MACS; operate at full autonomy but not a pace of entry-level PTA, complete a minimum of 135 hours working under a clinical instructor, present a topic of the student's or clinical instructor's choice at the clinical site, and obtain pertinent patient information and utilize it to appropriately treat and document the treatment in the patient's official record. PTA MACS (a method for evaluating clinical performance and a tool to promote teaching and learning) will be completed by the student and clinical instructor during the clinical affiliation. Mastery of "professional behaviors," (skills 1-12 from the PTA MACS) and "patient history and chart review" (skills from the PTA MACS) and receiving "Entry level or Excellent" grades from the clinical instructor are minimum requirements for successful completion of PTHA 2566. Students will complete 70% of additional site skills, in addition to the required skills in Clinical PTA I, on the master skills list. The PTA MACS accounts for 60% of the total grade.

PTHA 2435 REHABILITATION TECHNIQUES 58/38/4.5

Upon completion of this course, students will be able to discuss, promote, and compose wellness and preventive programs to promote public health; distinguish and critically examine the concepts and principles of comprehensive management of long-term pathologies; and develop, implement, and revise a comprehensive treatment approach for various long-term pathologies.

PTHA 2339 PROFESSIONAL ISSUES 48/0/3.0

Upon completion of this capstone course, students will be able to discuss licensure and job acquisition skills; describe behaviors appropriate in response to various legal, ethical, and professional interactions; and debate socioeconomic influences related to the field of physical therapy; and compose a professional résumé.

PTHA 1561 CLINICAL PTA III 25/0/215/6.0

Students will be supervised by a licensed clinical instructor (a Physical Therapist or Physical Therapist Assistant) and will receive hands-on clinical training to demonstrate proficient patient care, critical problem solving and thinking, use of modalities, developing and instructing home exercise programs, documenting and developing and delivering a presentation on an appropriate topic. The area of practice will vary from that of the previous clinical affiliations. A minimum of one clinical affiliation must be completed in an acute care setting. The student must have a current CPR card, malpractice insurance, health insurance, an updated immunization record, and a criminal background check to begin their clinical affiliation. Some affiliations may require additional items such as drug scree, influenza immunization or Covid vaccines.

Upon completion of this course, students will be able to demonstrate all the available skills at their clinical affiliation site at entry-level for each individual skill according to PTA MACS; operate at full autonomy and at a pace of entry-level PTA; complete a minimum of 245 hours working under a clinical instructor; present a topic of the student's or clinical instructor's choice at the clinical site; and obtain pertinent patient information and utilize it for appropriate treatment and documentation of the treatment in the patient's official record.

The PTA MACS (a method for evaluating clinical performance and a tool to promote teaching and learning) will be completed by the student and clinical instructor during the clinical affiliation. Mastery of "professional behaviors" and "patient history and chart review" (skills from the PTA MACS) and a grade of "Entry level or Excellent" from the clinical instructor are minimum requirements for successful completion of PTHA 2566. Students will be able to demonstrate entry-level physical therapist assistant skills in accordance with the PTA MACS and complete 80% of additional site skills, in addition to the required skills in Clinical PTA I, on the master skills list. The PTA MACS accounts for 70% of the total grade.

BACHELOR IN BUSINESS ADMINISTRATION

Available at 9451 Diana Drive Campus & 9624 Plaza Circle Campus
This program is offered 100% online at the Branch Campus (Diana Drive)
and Hybrid at the Main Campus (Plaza Circle)

Individuals pictured above are actors, students and/or employees of WTC

CAREER OPPORTUNITIES IN BUSINESS ADMINISTRATION

The Bachelor of Business Administration degree will help students cultivate various skills and assets businesses need. Supervisors directly oversee and coordinate the activities of clerical and administrative support workers. Supervisors of office and administrative support workers held about 1,521,800 in 2021 nationally. There was an above-average growth rate in colleges and universities, office administrative services, and an average growth rate in business support services. There are expected to be 11,647 more job openings in Texas by 2030.

Labor Market Information (2021 thru 2031 Projections)	Texas	National
Labor Market Information Employment 2021	123,677	1,443,630
Projected Employment 2021	135,324	1,521,800
Absolute Change 2021-2031	11,647	171,500
Percent Change 2021-2031	9.4%	12.10%
Average Hourly Wage 2021	$29.18	$30.47
Average Annual Openings	2,745	Not available

Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us
Source: U.S. Bureau of Labor Statistics (BLS). https://www.bls.gov/

ONLINE PROGRAM/COURSES

Students who enroll in the Bachelor of Business Administration program will receive training through a fully online delivery system. Western Tech's learning management system (Canvas) provides synchronous and asynchronous tools for online delivery. Instructors teaching online courses use a variety of online educational activities such as discussion boards, chat sessions, conference sessions, case studies, lab simulations, and pre-

recorded presentations. Online classes are organized for the students to have the flexibility to complete the online classroom activities based on their personal/work schedules.

Participation in online classes is vital to successful program completion. Students will provide their own computer that meets the requirements of the online program. Students must have Internet access to fulfill course requirements and succeed in classes. In addition, students must have a minimum level of comfort with technology to access coursework online, participate in discussions, and collaborate with peers and instructors.

Certifications

Students in the Bachelor of Business Administration program will have the opportunity to test for the following certifications: Word; Excel; Payroll; Bookkeeping; QuickBooks; Lean Six Sigma (Green) [depending on years of paid work experience]; and Project Management.

Graduation Requirement

To be eligible for graduation, a student must meet general graduation requirements, complete all required BBA curriculum, and maintain a cumulative grade point average (CGPA) of 2.0.

Technical Standards and Essential Functions

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to complete this program successfully.
The ability to understand course materials and maintain a grade/performance level that meets academic requirements.

1. The ability to maintain a professional demeanor always and interact professionally with fellow students, internship site employees, clientele, administration, and faculty.
2. The ability to listen, understand, and communicate ideas presented verbally and written.
3. The ability to utilize computers and perform basic computer functions with programs such as Word, Outlook, and Excel.

Bachelor of Business Administration
Courses 1-36
2228.0 Clock Hours
120.0 SEMESTER CREDIT HOURS

Educational Objectives

The Bachelor in Business Administration program will help students learn to cultivate various skills and assets businesses need. The program will provide students with the knowledge and technical skills needed for positions in business and may also provide students with opportunities for career advancement. The program provides training in various courses, including but not limited to Microsoft Applications, Accounting, Principles of Lean Six Sigma, Project Management, and Advertising. It will also provide hands-on experience in Microsoft Word and Excel. This program provides general education, technical, and specialized courses to prepare the graduate for private, public, and government careers. Students may find employment as financial analysts, business managers, general managers, public relations specialists, retail managers, operation coordinators, logistics clerks, accounting clerks, project coordinators, project managers, advertising reps, marketing managers, sales managers, and HR assistants among other business positions.

NOTE: The order of the classes may differ from that shown in the program outline.

Bachelor in Business Administration

#	Course Number	Course Title	Hrs.	Theory/ Lab	% on Campus/ Online	Semester Credit Hours
1	FOU101	Foundations	48	22/26	50/50	2.0
2	BMGT1327	Principles of Management	48	48/0	50/50	3.0
3	ITSC1401	MS Office Applications	96	64/32	50/50	5.0
4	ENGL1301	Composition (Gen Ed)	48	48/0	0/100	3.0
5	ACNT1525	Accounting Principles I	96	64/32	50/50	5.0
6	SCOM1315	Fundamentals of Human Communication (Gen Ed)	48	48/0	0/100	3.0
*7	ACNT1526	Accounting Principles II	96	64/32	50/50	5.0
8	SOCI1358	Sociology (Gen Ed)	48	48/0	0/100	3.0
9	BMGT1341	Business Ethics	48	48/0	50/50	3.0
10	MATH1312	Algebra (Gen Ed)	48	48/0	50/50	3.0
11	HRPO2301	Human Resource Management	48	48/0	50/50	3.0
12	MRKG1311	Principles of Marketing	48	48/0	50/50	3.0
13	ECON2301	Principles of Macroeconomics	48	48/0	50/50	3.0
*14	ACNT1213	Computerized Accounting (QuickBooks)	64	32/32	50/50	3.0
*15	ACNT1229	Payroll Accounting	64	32/32	50/50	3.0
*16	ECON2302	Principles of Microeconomics	48	48/0	50/50	3.0
17	BUSG2317	Business Law	48	48/0	50/50	3.0
*18	MATH1324	Mathematics for Business and Social Sciences (Gen Ed)	48	48/0	50/50	3.0
19	BIOL1301	Biology for Non-Science Majors (Ge Ed)	48	48/0	0/100	3.0
20	BUSG2311	Entrepreneurship and Innovation	96	48/48	50/50	4.5
21	PSYC2301	General Psychology (Gen Ed)	48	48/0	0/100	3.0
22	LSSY3310	Principles of Lean Six Sigma	64	32/32	50/50	3.0
23	IBUS3300	Logistics Management	48	48/0	50/50	3.0
24	BMGT3321	Production/ Operation Management	48	48/0	50/50	3.0
*25	ENGL1302	Research Analysis (Gen Ed)	48	48/0	0/100	3.0

*26	LSSG3311	Applied Lean Six Sigma	96	48/48	50/50	4.5
27	PHIL1301	Introduction to Philosophy (Gen Ed)	48	48/0	0/100	3.0
28	BMGT3301	Project Management	96	48/48	50/50	4.5
29	FINA3315	Business Finance	48	48/0	50/50	3.0
*30	HRPO4302	Human Resource Development	48	48/0	50/50	3.0
31	BMGT4020	E-Business	48	48/0	50/50	3.0
32	MATH1342	Statistics (Gen Ed)	48	48/0	50/50	3.0
33	BMGT4325	International Business Management	48	48/0	50/50	3.0
*34	ADVT4336	Advertising Creative Strategy & Execution	48	48/0	50/50	3.0
35	BMGT4300	Capstone	48	48/0	50/50	3.0
36	BMGT4388	Career Development & Internship	212	24/8/180	100/0	5.5
Total Hours and Credits Bachelor of Business Administration			**2228**	**1678/370/18**		**120.0**

NOTE: Courses with prerequisites are denoted in the course list with an asterisk (*). Courses flagged as (Gen Ed) are described in the General Education Courses section of this Catalog.

FOU 101 **FOUNDATIONS** **22/26/2.0**

Upon completion of this course, the student will be able to identify and state individual educational goals and formulate specific plans to work towards the goals; design and implement a personal time management plan; identify preferred learning style and employ strategies for effective reading and studying; describe and employ critical thinking and creative thinking skills; describe effective listening, note taking, memory retention, writing skills, communication skills, and methods for improving these skills; describe and use various methods of exam preparation; explain test anxiety and list strategies for reducing it; describe the interview process and strategies for successful interviewing; create a resume and a cover letter; perform basic computer, email, and internet operations; create simple word documents; design and deliver a simple presentation; and use the learning management system (Canvas) that will be used for the distance education platform.

BMGT 1327 **PRINCIPLES OF MANAGEMENT** **48/0/3.0**

Upon completion of this course, students will be able to identify management, organizational structure, and operations management; explain globalization and how it affects organizations; apply the foundation of decision-making; understand the foundations of human behavior and motivating and rewarding employees; and demonstrate how to manage communication and information.

ITSC 1401 **MS OFFICE APPLICATIONS** **64/32/5.0**

Upon completion of this course, students will be able to use Microsoft Word, Excel, and other features of Microsoft Office; format text, compress files, create new documents, insert text, format graphics, create tables, insert footnotes, create columns, create charts, insert hyperlinks, create and manage worksheets and workbooks; manage data cells and ranges; create tables; perform operations with formulas and functions; create charts and objects; and evaluate complex formulas.

ACNT 1525 ACCOUNTING PRINCIPLES I 64/32/5.0

Upon completion of this course, students will be able to prepare and examine income statements, statements of retained earnings, and balance sheets; work with assets, liabilities, owner's equity, and financial statements; use revenue and expense accounts; list the rules of debit and credit; execute the accounting cycle; and perform essential payroll functions. Students will demonstrate the ability to record transactions and adjust entries, post to the ledger, close periods, and see the effects in the ledger accounts.

ACNT 1526 ACCOUNTING PRINCIPLES II 64/32/5.0

Upon completion of this course, students will be able to journalize transactions for Accounts Receivable, long-term notes payable and mortgage payable, apply commonly used depreciation methods, describe and illustrate how debt and equity securities are reported, explain different inventory valuations such as FIFO, LIFO, average cost method, explain how financial statements are used to analyze a business and perform a horizontal and vertical analysis of financial statements and execute a Statement of Cash Flow utilizing direct and indirect methods. Students will be able to launch Connect for practice purposes and lab.

Prerequisite: ACNT 1525 Accounting Principles I

BMGT 1341 BUSINESS ETHICS 48/0/3.0

Upon completion of this course, students will be able to identify ethical management and ethics in organizations; describe the two realms that law and ethics govern; name the rules of business ethics and describe ethical requirements specific to professionals; assess employee rights and describe the justification of whistleblowing and the meaning of loyalty; explain why employers must know trade secrets, conflict of interest, the challenges of privacy, and the meaning of discrimination and harassment; and explain how business decisions may be unethical even if legal.

HRPO 2301 HUMAN RESOURCE MANAGEMENT 48/0/3.0

Upon completion of this course, students will be able to summarize the basic equal employment opportunity laws and how each impacts HR functions such as recruitment and selection; explain the defenses against discrimination allegations and provide examples of what employers can and cannot legally do with respect to recruitment, selection, promotion, and layoff practices; describe training and appraising processes; write job descriptions, including summaries and job functions using the Internet and traditional methods; explain and provide examples of the need for branding in effective recruiting; do a background check on job candidates; and how to attend to employee labor relations, health and safety, and fairness concerns.

MRKG 1311 PRINCIPLES OF MARKETING 48/0/3.0

Upon completion of this course, students will be able to identify the marketplace and customers; identify the five core marketplace concepts; describe customer relationship management; identify strategies for creating value for customers; create business portfolios and develop growth strategies; describe how companies analyze and use marketing information; and how companies find and develop new product ideas.

ECON 2301 PRINCIPLES OF MACROECONOMICS 48/0/3.0

Upon completion of this course, the student will be able to explain the roles of scarcity, specialization, opportunity cost, and cost/benefit analysis in economic decision-making; identify the determinants of supply and demand; demonstrate the impact of shifts in both market supply and demand curves on equilibrium price and output; define and measure national income and rates of unemployment and inflation; identify the phases of the business cycle and the problems caused by cyclical fluctuations in the market economy; and explain the role of money and the money supply.

ACNT 1213 COMPUTERIZED ACCOUNTING (QUICKBOOKS) 32/32/3.0

Upon completion of this course, students will be able to identify QuickBooks forms and use lists and registers in QuickBooks, create invoices, record sales transactions on account, and create payroll checks; explain the concepts for computerized accounting for payables; and record depreciation and enter the adjusting entries required for accrual-basis accounting; set up a company using the Easy Step Interview and QuickBooks Setup.

Prerequisites: ACNT 1525 Accounting Principles I

ACNT 1229 PAYROLL ACCOUNTING 32/32/3.0

Upon completion of this course, students will be able to discuss payroll laws and regulations; determine gross earnings, payroll deductions, federal and state payroll taxes, and tax reports; define the common payroll periods: weekly, biweekly, semi-monthly, and monthly; tell the difference between temporary and contract workers; compute gross earning based on regular and overtime hours worked; identify and several common "pretax" items that lessen the amount of income tax for employees; and compute various payroll taxes and withholding to arrive at "net-pay"; and calculate Social Security and Medicare taxes on employee earnings.

Prerequisite: ACNT 1525 Accounting Principles I

ECON 2302 PRINCIPLES OF MICROECONOMICS 48/0/3.0

Upon completion of this course, students will be able to explain and apply the production function and the Law of Diminishing Marginal Productivity; calculate and graph short-run and long-run costs of production and identify the four market structures by characteristics; calculate and graph the profit-maximizing price and quantity in the output markets by the use of marginal analysis; use marginal analysis to determine the profit-maximizing price and quantity of resources in factor markets under perfect and imperfect competition; describe governmental efforts to address market failures such as monopoly power, externalities, and public goods; and use the concept of comparative advantage to identify the benefits of free trade.

Prerequisite: ECON 2301 Principles of Macroeconomics

BUSG 2317 BUSINESS LAW 48/0/3.0

Upon completion of this course, students will be able to explain basic constitutional law and key terms and concepts of the formation of sales and lease contracts; identify credit, mortgages, and debtor's rights; explain employment, worker protection, and immigration law; and identify and describe distinct types of business entities such as sole proprietorship, partnerships, and corporations.

BUSG 2311 ENTREPRENEURSHIP AND INNOVATION 48/48/4.5

Upon completion of this course, students will be able to name the characteristics of successful entrepreneurs; write and present a business plan, including how to conduct a feasibility study, how to develop a business model, and the ethical and legal issues facing new firms; describe ethical and legal issues facing new firms; explain the importance of getting financing or funding; define intellectual property and patents; and define franchising and tell how it works.

LSSY 3310 PRINCIPLES OF LEAN SIX SIGMA 32/32/3.0

Upon completion of this course, students will be able to identify the role of a Lean Six Sigma Yellow Belt within the organization; apply project management skills; identify process improvements that support a project; and explain how a decrease in process variation can lead to defect reduction and improvement in profits, employee morale, and quality of products or service.; explain Six Sigma Metrics; and identify monitor, and control "profit-eating" practices in a process.

IBUS 3300 LOGISTICS MANAGEMENT 48/0/3.0

Upon completion of this course, students will be able to describe a supply chain, define supply chain management, and explain the importance of supplier partnerships and the role of demand forecasting; compare and contrast the various modes of transportation and their impacts on costs; and explain the various causes of the bullwhip effect and how they impact process; name and explain the forms of logistics: Financial Logistics, Inventory Management Logistics, Warehouse Management Logistics, Packing and Materials Handling Logistics, and Transportation Logistics; and address how today's technology affects the overall environment of logistics, organizational and managerial issues in logistics, the importance of facility location, and transportation infrastructures.

BMGT 3321 PRODUCTION/OPERATION MANAGEMENT 48/0/3.0

Upon completion of this course, students will be able to identify product and process designs, implement productivity improvement, and explain Quality Management; explain the steps of new product development; apply forecasting

methods and capacity planning measures; and describe the aspects of production and operations management in the manufacturing industry including decision-making, capacity planning, aggregate planning, forecasting, and inventory management, distribution planning, materials requirements planning (MRP), project management and quality control.

LSSG 3311 APPLIED LEAN SIX SIGMA 48/48/4.5

Upon completion of this course, students will be able to analyze and solve quality problems and apply quality or continuous improvement projects; demonstrate the uses of Six Sigma tools and processes; and explain the DMAIC methodology (Define, Measure, Analyze, Improve, and Control); and define improvement projects to satisfy the customer and reduce variation.

Prerequisite: LSSY 3310 Principles of Lean Six Sigma

BMGT 3301 PROJECT MANAGEMENT 48/48/4.5

Upon completion of this course, students will be able to explain why effective project management contributes to achieving strategic objectives and to gain a competitive advantage; tell how managers propose, plan, secure resources, budget, and lead project teams to successful completion of their projects; demonstrate how to use checklists and simple scoring models to select projects; and construct and explain Gantt charts.

FINA 3315 BUSINESS FINANCE 48/0/3.0

Upon completion of this course, students will be able to apply the principles of business finance that support the overall financial strategy of an organization; apply the standard and accepted accounting principles when reporting, recording, and projecting financial information; explain the structure of financial statements; and utilize the time value of money, management of cash flow, financial sources, financial return, and risk concepts to conduct professional financial analyses.

HRPO 4302 HUMAN RESOURCE DEVELOPMENT 48/0/3.0

Upon completion of this course, students will be able to explain Human Resource Development (HRD) and the need for HRD and design; implement HRD programs and evaluate HRD programs; demonstrate coaching and performance management; demonstrate employee counseling, well-being, and wellness; describe the scope and implementation of career management and development.

Prerequisite: HRPO 2301 Human Resources Management

BMGT 4020 E-BUSINESS 48/0/3.0

Upon completion of this course, students will be able to identify and explain the variety of e-business models, i.e., business to business, business to customer, consumer to consumer; determine an appropriate e-business model and apply it to a specific business; explain the implementation of the 4P's to a specific target market; define the term "Internet economy"; and describe the severity of downturns in the business cycle on traditional vs. Internet businesses; describe the opportunities that can be provided when private and public organizations interact with their customers, clients, or stakeholders; create services, and other solutions that support the strategy and desired goal for both companies and society at large; engage in e-commerce (buying and selling over the Internet) and e-business (conducting business using Internet technology).

BMGT 4325 INTERNATIONAL BUSINESS MANAGEMENT 48/0/3.0

Upon completion of this course, students will be able to assess the political, economic, legal, and technological, environment; explain the role of culture, communicating, cross-cultural negotiation, and decision-making; explain theories of international trade and economic development; formulate strategy; identify strategic alliances, small business, and emerging economy firms; identify organization structure and control systems; and describe staffing, training, and compensation for global operations; describes the challenges of marketing internationally and starting and maintaining international business relationships.

ADVT 4336 ADVERTISING CREATIVE STRATEGY & EXECUTION 48/0/3.0

Upon completion of this course, students will be able to describe advertising's role in society, its procedures, and practices; explain unexpected but relevant sales messages and demonstrate what identity and image strategy do to products; create a strategy for reaching out to an ever-changing marketplace; design advertisements for print, broadcast, interactive, and specialty media that meet specific campaign objectives; demonstrate how to connect with the consumer's heart and mind; explain the power of radio, television, and social media; and identify government regulations on advertising.

Prerequisite: MRKG 1311 Principles of Marketing

BMGT 4300 CAPSTONE 48/0/3.0

Upon completion of this course, students will be able to develop a detailed project proposal and complete a final capstone project linking the areas of study of the student's degree plan with their intellectual interests; use research, reviews, and analysis (including the identification of opportunities and threats); build competitive advantage and how to build and develop a company; prepare and present a business proposal.

Prerequisite: All preceding courses

BMGT 4388 CAREER DEVELOPMENT & INTERNSHIP 24/8/180/5.5

Upon completion of this course, students will be able to conduct a targeted job search complete with portfolio, references, and job leads; create a resume and cover letter; demonstrate their interviewing skills; demonstrate strategies to implement when invited to an interview; practice salary negotiation strategies; define a team and its functions; and conduct collaborative work in the community; recognize the importance of individual and cultural differences and respond appropriately; demonstrate initiative and interest in performing the duties assigned, and maintain good attendance and punctuality; maintain a professional appearance; demonstrate competency in Word, Excel, human resource management, marketing, advertising, accounting, payroll, and project management; make ethical decisions; use organizational skills and complete projects assigned on a timely basis; demonstrate the ability to work in a team; meet deadlines; and keep their work area clean and organized.

Prerequisite: All preceding courses

BACHELOR OF SCIENCE IN NURSING

Available at 9451 Diana Drive Campus

Career Opportunities for BSN Graduate Nurses

Health care has become one of the dominant industries for employment in Texas – and the United States – in the last decade. Demand for health care workers in Texas is expected to continue to increase as the state has growing populations of both old and young people, the primary customers of the health care industry. Registered nurses make up the largest occupation by employment in this industry. This industry has a projected employment of over 219,000 by 2030 an increase of over 17% (Source: D.O.L. Occupational Outlook Handbook, https://www.bls.gov/ooh/healthcare/registered-nurses.htm) Some of the potential career opportunities for nurses available to BSN graduates are as follows: hospital staff nursing; home health nursing; care facilities nursing; physicians' offices nursing; genetics nursing; critical care nursing; public health nursing; and forensic nursing.

Labor Market Information (2020 thru 2030 Projections)	Texas	National
Labor Market Information Employment 2020	220,984	3,130,600
Projected Employment 2030	258,715	3,326,000
Absolute Change 2020-2030	37,731	195,400
Percent Change 2020-2030	17.07%	16%
Average Hourly Wage 2016	$37.00	$37.31
Average Openings per year due to Replacement	Not available	Not available
Average Openings per year due to Growth	Not available	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

BACHELOR OF SCIENCE IN NURSING
COURSES 1-40
2265 CLOCK HOURS
120 SEMESTER CREDIT HOURS

Educational Objectives

The Bachelor of Science in Nursing program at WTC provides students with the theory, laboratory and clinical experiences that will serve as preparation for an entry level position in registered nursing. Upon successful completion of the program, the graduate is eligible to take the NCLEX-RN (National Council Licensure Examination-RN) exam to obtain licensure, as required by the State of Texas to practice nursing. Nursing theory provides the foundation of

the nursing practices and guides students with what and how to perform in clinical practices. The clinical portion of the program provides students with actual hands-on experience in giving basic-to- advanced nursing care to patients of all ages. Clinical experience, training is provided in skills simulation lab, in long-term treatment facilities, and at acute hospital settings.

The BSN program consists of 120 semester credit hours that is divided into 8 semesters, where the initial 3 semesters cover general education courses, and the remaining 5 semesters cover the nursing major courses. The nursing program semester is 15 weeks long and the entire BSN program runs for 32 months from start to finish.

Expected Student Outcomes

Upon completion of this program, each student will be able to do the following:

1. Integrate theory and knowledge of the science, social sciences, humanities, and nursing as a foundation for nursing practice.
2. Apply the nursing process to manage the care of individuals, families, and populations with respect for diversity in a variety of health care settings.
3. Demonstrate the inherent professional values and behaviors in the delivery of individual, families, and population centered care.
4. Demonstrate cultural sensitivity in meeting the physical and psychosocial needs of the client.
5. Analyze the effect of existing government policies on the health care delivery system.
6. Facilitate inter-professional and intra-professional communication and collaboration to improve practice, minimize risks, and optimize health outcomes.
7. Apply the competencies of leadership, quality improvement and patient safety to improve health outcomes for individuals, families, and populations.
8. Contribute to the development and implementation of a therapeutic teaching plan.
9. Critique current health delivery system, offering corrective improvement ideas.

Mission and Philosophy

The nursing program mission is to prepare culturally sensitive professional nurses who are well versed in the delivery of safe, compassionate and holistic patient-centered care using evidence-based interventions and sound clinical judgment for individuals, families, populations and communities across the lifespan. We are committed to doing so through the application of an academically sound curriculum delivered by dedicated and exceptional educators. The mission of WTC College Nursing Program is incongruent with the mission of the college.

Entrance Requirements

1. The applicant must be at least 18 years of age at the time of start of the program.
2. The applicant must have a clean FBI criminal background check.
3. Official high school transcripts must come directly from the high school, showing a 2.75 CGPA or higher, and sent to the Admissions Department to process the application. Prospective students may present a copy of their high school transcript to the admissions representative for initial evaluation, but the application will not be processed until an official transcript is received.
4. A GED will be accepted in lieu of a high school transcript.
5. Completion of 12 semester credit hours or more from an accredited post-secondary college with 3.0 GPA will be accepted in lieu of high school transcript.
6. Applicants must achieve a minimum score of 60% in Reading, 60% in Mathematics, 60% in English, and a minimum of 50% in science on the Test of Essential Academic Skills (TEAS). Applicants may register to take the TEAS exam at www.atitesting.com.
7. The applicant must be able to satisfy, with or without reasonable accommodation, the

physical, mental, and sensory requirements listed in the student health form.
8. The applicant must present a complete health clearance from a healthcare provider.
9. The applicant must present drug screen test with negative result.
10. Applicants must sit for a panel interview.

The ATI TEAS consists of 170 questions in a multiple-choice format with four-option answers. Questions are designed to test the basic academic skills the tester will need to perform in class in the areas of: Reading, Mathematics, Science, English, and language usage. The total score is an adjusted percent correct score, which ranges from 0.0% to 100%. It is an equated score generated by the information from the entire set of 150 scored questions. The Dean of Nursing ranks applicants based on qualifying (TEAS) scores and makes the selection decisions for admission. Admission will be denied to an applicant who fails to meet all admission requirements, and the school documents the basis for denial. A candidate who does not have a clear criminal background check as described by the Texas Board of Nursing will be sent a letter of denial of acceptance. The applicant must complete the eligibility process prior to admission.

Upon successful completion of all admission requirements, the school will promptly notify the student whether they are admitted to the nursing program. If the number of qualified applicants for admission into the program exceeds the space available, applicants will be ranked based on the composite score each received on the TEAS Exam. Students accepted into the nursing program must meet the requirements established by the nursing program's admission policy. Applicants must comply with all required eligibility information and policies of TBON Rule 215.8 to be accepted into the nursing program.

All applicants must successfully complete the Test of Essential Academic Skills (TEAS) exam to be considered for admission.

Immunization Requirements for BSN

Immunization requirements are based on the Centers for Disease Control and Prevention (CDC) immunization recommendations for health-care workers. Student and faculty, exceptions to the immunization policy will be determined by the student/faculty's primary health care provider documentation and in consultation with the clinical agency.

The following is a list of necessary immunizations for all nursing students attending the nursing program. Proof of immunization or positive titers must be documented in the student record and may be reflected in a shot record, physical examination report, lab report, or a letter from a health care provider. The record statement should include shot records, physical examination report, and immunization lab report. All immunizations will be completed prior to the start of upper division nursing courses. WTC complies with all state health care provider laws and regulations.

1. Tetanus (Td or DTP): One immunization within the past 10 years.
2. Measles, Mumps, Rubella (MMR): Two inoculations from childhood should be shown on the records. If only one is shown, then a recent inoculation as an adult must also be shown. If none from childhood can be shown, then one as an adult is acceptable. Proof of immunity may also be shown by the positive titer result.
3. Varicella Titer (also known as chickenpox): Two inoculations given four weeks apart or provide proof of immunity by the positive titer result.
4. Hepatitis B (Hep. B): A series of 3 injections. Injection #1 is given, #2 is given 30 to 60 days after injection #1. Injection #3 is given 4 to 6 months after #2. If the person waits too long between any of the injections, they may have to begin the entire series over again. Proof of immunity may also be shown with positive titer results.

5. TB test (QuantiFERON TB Gold in-Tube and Tuberculosis Skin Test or Chest X-Ray (TB, PPD): Skin test results or chest x-ray result prior to the start of the upper division courses. If the student tested positive to the skin test or is allergic, they must show the results of a negative chest x-ray. Students must provide a current negative TB result annually.
6. Seasonal flu shots.
7. COVID exemption will be accepted for review by clinical sites.

Should the student be allergic to any of the above immunizations, they must provide a letter from a physician stating this. Women who are pregnant or with certain health conditions should not be immunized, therefore it is imperative that students provide a letter to the school from their attending physician with this information.

Additional immunizations or health screening may be required to meet clinical agency requirements. Students are responsible for keeping their original immunization record and providing the clinical coordinator a copy for their student record prior to the start of clinicals.

Graduation Requirements

Students from the BSN program are required to graduate with a 3.0 or higher. The college reserves the right to withhold official transcripts to a student until all financial obligations to the college have been fulfilled or satisfactory arrangements have been made. They must also attend and complete a financial aid exit interview and must meet general graduation requirements**.**

Technical Standards and Essential Functions

To better prepare students planning to enter nursing, an understanding of the physical and mental requirements expected by employers is essential. The student is expected to meet the same professional abilities during clinical/lab instruction in the Nursing Program. Students must be able to:

1. Demonstrate consistent ability to deliver safe competent nursing care.
2. Demonstrate ability to deliver care across the age spectrum with honesty, civility, integrity, and non-discrimination.
3. Demonstrate effective communication and interpersonal skills.
4. Must be able to read and write in English and communicate verbally in English.
5. Demonstrate emotional stability and maturity in various circumstances through interpersonal relationships with staff, patients, and visitors.
6. Demonstrate ability to differentiate odors and colors in the clinical setting.
7. Have normal/corrected vision and hearing within the normal range.
8. Demonstrate ability to direct and work in stressful, changing, and high paced facilities demonstrating coping skills.
9. Demonstrate good body mechanics, lift/carry a minimum of twenty-five (25) lbs. independently and fifty (50) lbs. with assistance.
10. Demonstrate ability to tolerate intermittent sitting, standing, stooping, and walking. Full range of motion is required.
11. Demonstrate good manual and finger dexterity.
12. Demonstrate working knowledge and ability to use computers.
13. Function to full extent as there are no “limited or light duty assignments”

Licensure Examination

Approximately three months prior to graduation, submit the required applications and fees in preparation for licensure. The application process is two-fold; first, the State Board of Nursing in Texas requires an application and fee to process the license, and secondly, the testing center, Pearson Vue, requires a separate application and testing fee to

register the applicant to take the licensing exam. The dean of nursing will provide the students with the necessary information to facilitate this process. Additionally, the state of Texas requires all applicants for the NCLEX- RN to pass the Texas Nursing Jurisprudence Examination online prior to been issued an authorization to test for the NCLEX examination. Refer to the TBON website http://www.bne.state.tx.us/ under the Licensure tab and then click on Examination for details.

BACHELOR OF SCIENCE IN NURSING

#	Course	Title	Hrs.	Lec/ Supervised Lab	Semester Credit Hours
1	ENGL 1301	English Composition I	45	45/0	3.0
2	BIOL 1401	Anatomy & Physiology I	75	45/30	4.0
*3	PHIL 1301	Philosophy I	45	45/0	3.0
4	HIST 1301	U.S. History I	45	45/0	3.0
5	MATH 1312	Algebra	45	45/0	3.0
*6	SPCH 1315	Public Speaking	45	45/0	3.0
*7	PHIL 2255	Medical Ethics & Issues	30	30/0	2.0
8	BIOL 2421	Microbiology	75	45/30	4.0
9	BIOL 2402	Anatomy & Physiology II	75	45/30	4.0
*10	SOCI 1358	Sociology	45	45/0	3.0
*11	PSYC 1380	Life Span Human Development	45	45/0	3.0
*12	BIOL 1360	Introduction to Human Nutrition	45	45/0	3.0
*13	PSYC 2301	General Psychology	45	45/0	3.0
14	ENGL 1302	Research Analysis	45	45/0	3.0
15	MATH 1342	Statistics	45	45/0	3.0
*16	CHEM 1470	Chemistry	75	45/30	4.0
17	PATHO 2330	Human Pathophysiology	45	45/0	3.0
18	POLS 3389	Policy & Politics in Healthcare	45	45/0	3.0
19	NURS 2200	Foundation of Nursing	30	30/0	2.0
20	NURS 2400L	Foundation of Nursing Lab/Clinical	120	0/120	4.0
21	NURS 2210	Gerontologic Nursing	60	40/20	3.0
22	NURS 2220	Health/Physical Assessment	60	30/30	3.0
23	NURS 2230	Pharmacology	30	30/0	2.0
24	NURS 3300	Medical Surgical Nursing I	30	30/0	2.0

25	NURS 3500L	Medical Surgical Nursing I Lab/Clinical	120	0/120	4.0
26	NURS 3270	Cultural Diversity & Health	30	30/0	2.0
27	NURS 3384	Nursing Research	45	45/0	3.0
28	NURS 3340	Medical Surgical Nursing II	45	45/0	3.0
29	NURS 3440L	Medical Surgical Nursing II Lab/Clinical	120	0/120	4.0
30	NURS 3250	Mental Health	30	30/0	2.0
31	NURS 3150L	Mental Health Lab/Clinical	30	0/30	1.0
32	NURS 3320	Community Health Nursing	60	30/30	3.0
33	NURS 4370	Medical Surgical Nursing III	45	45/0	3.0
34	NURS 4370L	Medical Surgical Nursing III Lab/Clinical	120	0/120	4.0
35	NURS 4460	Maternal Child Nursing	60	60/0	4.0
36	NURS 4460L	Maternal Child Nursing Lab/Clinical	60	0/60	2.0
37	NURS 4410	Nursing Leadership & Management	90	30/60	4.0
38	NURS 4250	Professional Nursing Issues	30	30/0	2.0
39	NURS 4380	Preceptorship + Lab/Clinical	90	0/90	3.0
40	NURS 4390	Nursing Capstone	45	45/0	3.0
Total Hours and Credits - Bachelor of Science in Nursing			**2265**	**1335/930**	**120.0**

NOTE: Program courses for the Nursing curriculum are designed in a sequential manner. Each course of the curriculum is ordered such that the subsequent material is based on skills acquired from prerequisite courses. Exceptions to this include courses denoted with an asterisk (*).

NURSING COURSE DESCRIPTIONS

NURS 2200 FOUNDATION OF NURSING 30/0/2.0

This course promotes nursing as an evolving art and science directed to human health and well- being. Students will cultivate the Quality and Safety Education for Nurses (QSEN), critical thinking, and blended skills practiced within the nursing process to serve patients and the public. Students will combine cognitive, technical, and interpersonal skills to promote the four aims of nursing: promoting health; preventing illness; restoring health and facilitating coping with illness or death. Students will identify with their profession and share in its rewards by developing an attitude of caring and accountability in patient care. The NUR200L Foundation of Nursing Lab/Clinical course must be taken concurrently with this course.

Upon completion of this course, students will be able to:

- Describe the foundations of nursing, including health and illness, human needs, nursing theory, research, and evidence-based practice.
- Evaluate the settings in which health care is practiced and the methods taken to ensure continuity of care for the patient.
- Describe and practice the components of the nursing process: assessing; diagnosing; planning; implementing; and evaluating.
- Use theories of growth and development across the lifespan to enhance the patient care plan.
- Describe the roles basic to nursing care, including communicator; teacher; counselor; leader; manager and

care coordinator.

- Discuss the actions basic to nursing care: maintaining asepsis, measuring vital signs, assessing health promoting safety, incorporating complementary and alternative therapies, administering medications, and caring for patients in all healthcare settings.
- Promote healthy physiologic responses in patients: hygiene, skin integrity and wound care, activity, rest and sleep, comfort and pain management, nutrition, urinary and bowel elimination, oxygenation and perfusion, electrolyte, and acid-base balance.
- Develop plans of care to help patients meet basic psychosocial needs: self-concept; stress and adaptation; loss, grief, and dying; sensory stimulation; sexuality; and spirituality.

NURS 2400L FOUNDATION OF NURSING LAB/CLINICAL 0/120/4.0

This course presents basic nursing skills that will assist nursing students to incorporate cognitive, technical, interpersonal, and ethical/legal skills into safe and effective patient care. The skills included focus on basic principles of patient care, including an emphasis on safe medication administration. Students will apply the nursing process as they care for patients in skilled units of a long-term care facility.

Upon completion of this course, students will be able to:

- Demonstrate basic nursing care in a safe manner in an instructor supervised skills laboratory and real-life patient care settings.
- Collect subjective and objective health assessment data for adult patients in a long- term care setting.
- Apply the nursing process as a method for clinical reasoning and decision making.
- Demonstrate accurate calculation of medication dosages.
- Demonstrate accurate and complete documentation of patient care in the DocuCare electronic medical record.
- Demonstrate nursing interventions to promote basic needs in the clinical setting, including activity and exercise; patient safety; hygiene; oxygenation, fluid, electrolyte and acid base balance; sleep; pain management; nutrition; urinary elimination; bowel elimination; skin integrity and wound care; and sensory alterations.
- In a simulated laboratory setting and where opportunities are available in a real-life patient setting, demonstrate the following procedures according to best practices and evidenced based research:
- Asepsis and Infection Control: handwashing; PPE; sterile field; sterile gloves.
- Vital Signs.
- Safety: fall prevention and restraints.
- Medication Administration: oral, injectable (intradermal, SQ, IM); transdermal; eye drops; ear drops; nasal spray; vaginal; rectal; inhaled; metric and household systems of measurement; drug abbreviations, labels, and packaging; calculation of oral medications; calculation of liquids for injection.
- Perioperative: deep breathing; coughing; splinting; leg exercises; post-op receiving to room
- Hygiene: bathing; oral care; contact lenses; hair; shaving; nail care; bed making.
- Skin Integrity and Wound Care: dry, sterile dressing; saline-moistened dressing; hydrocolloid dressing; wound irrigation; wound culture; Montgomery straps; suture removal; staple removal; heating pad; warm compress; cold therapy.
- Activity: turning in bed; moving a patient up in bed; transferring; ROM exercises; ambulation; graduated compression stockings; pneumatic compression devices; CPM device; sling.
- Comfort and Pain Management: promoting comfort; back massage.
- Nutrition: assisting with eating.
- Urinary Elimination: bedpan, urinal, bedside commode
- Bowel Elimination: enema; digital removal of stool; fecal incontinence device.
- Oxygenation: pulse oximeter; incentive spirometer; oxygen by nasal cannula and mask.
- Cardiovascular Care: CPR.
- Neurologic Care: logrolling; cervical collar; seizure precautions.

- Laboratory Specimen collection: nasal swab; nasopharyngeal swab; sputum specimen; urine specimen, clean catch; occult blood in stool; stool for culture; capillary blood sample for glucose testing

NURS 2210 GERONTOLOGIC NURSING 40/20/3.0

This course provides a foundation for the nurse's role in providing wellness-oriented nursing care in all stages of health and illness for older adults in any health care setting. Students will understand the complex needs of older adults in the context of age- related changes and individual risk factors as they apply the nursing process to deliver holistic care in a long-term care clinical setting through the roles of practitioner, educator, advocate and researcher.

Upon completion of this course, students will be able to develop a wellness philosophy in the care of older adults and explain the Functional Consequences Theory applied to the nursing care of older adults. Students will further be able to describe the role of the nurse in promoting wellness for older adults about aspects of daily life as well as complex situations such as medication management, elder abuse, and legal and ethical concerns. Apply nursing interventions to support wellness in psychosocial functioning. Students will also be able to differentiate between age-related changes and risk factors that affect all aspects of physiologic and psychosocial function for older adults and identify those that are most amenable to health promotion interventions. Lastly, students will be able to apply concepts of wellness to older adults through all stages of health and illness, including acute and chronic conditions, pain management, and at the end of life.

NURS 2220 HEALTH/PHYSICAL ASSESSMENT 30/30/3.0

This course provides assessment tools to assist the student to obtain a thorough history and perform a comprehensive physical examination of adult and geriatric patients. Students will learn to elicit information related to patient complaints and use the history findings and critical thinking skills to prioritize and guide the physical examination. Health promotion and disease prevention are highlighted for students to incorporate when educating patients, families, and communities.

Upon completion of this course, students will be able to explain the components of the health assessment.
Analyze a written patient history and physical examination findings to identify patient problems and develop a nursing care plan. Students will also be able to describe the phases of the nurse-patient interview, use therapeutic communication techniques during the patient interview and physical examination and obtain a comprehensive health history from a patient. Students will perform and document a comprehensive physical examination using a systematic, head-to-toe approach on a simulated adult patient, and recognize normal physiologic changes in the older adult. Lastly, students will perform and document a health history and physical examination utilizing screening tools which address common concerns in the older adult and demonstrate proper use of equipment utilized in physical examination.

NURS 2230 PHARMACOLOGY 30/0/2.0

This course introduces nursing pharmacology to build a foundation for administering drug therapy to patients. Discussion of the major drug groups focuses on therapeutic actions and indications, pharmacokinetics, contraindications and cautions, adverse effects, clinically important drug-drug interactions, and nursing considerations which emphasize the nursing process and focus on patient care and teaching. Prototypes of the major drug groups are emphasized. Lifespan considerations, evidence for best practice, patient safety, and critical thinking are integrated throughout the course.

Upon completion of this course, students will be able to discuss the major concepts associated with pharmacology including pharmacodynamics, pharmacokinetics, therapeutic effects, adverse effects, and factors affecting drug therapy. Students will be able to explain the legal regulation for drug development, approval, and testing, and challenges associated with drug therapy in current times. Students will describe the major drug groups and their indications for use; correlate the actions of the major drug groups with the body system(s) affected and identify the

prototype for each of the major drug groups. Students will discuss the important lifespan considerations associated with the major drug groups and explain the mechanism of action, indications, contraindications and cautions, common adverse effects, and clinically important drug-drug interactions for each of the major drug groups. Lastly, students will relate the importance of renal and hepatic function with drug therapy, and describe the nursing considerations related to drug therapy, including important teaching points, for each of the major drug groups.

NURS 3300 MEDICAL SURGICAL NURSING I 30/0/2.0

This course provides an understanding of the nurse's role in patient-centered care within evolving practice environments and across the spectrum of health and illness. This course will address nursing care issues including pain management; fluid and electrolyte balance; perioperative care; gas exchange; digestive function; renal function; sensory and integumentary function from a physiologic, pathophysiologic, and psychosocial context. Students will apply this knowledge through the nursing process and clinical reasoning in an acute care clinical setting as they assume the roles of practitioner, educator, advocate, and researcher through NUR300L Medical Surgical Nursing I Lab/Clinical which must be taken concurrently.

Upon completion of this course, students will be able to discuss genetics and genomics, chronic illness, and rehabilitation as they relate to professional nursing practice, and demonstrate a comprehensive understanding of pain, fluid and electrolyte balance, perioperative care, gas exchange, digestive, renal, sensory, and integumentary function. Students will apply the nursing process to patients experiencing pain, fluid and electrolyte imbalance, surgery, and disorders of gas exchange, digestion, renal, sensory, and integumentary dysfunction. Furthermore, students will be able to discuss safe, effective nursing care for patients with pain, fluid and electrolyte imbalance, perioperative needs, and disorders of gas exchange, digestion, renal, sensory, and integumentary dysfunction through the nursing roles of practitioner, educator, advocate, and researcher.

NURS 3500L MEDICAL SURGICAL NURSING I LAB/CLINICAL 0/120/4.0

This course emphasizes safe, effective, compassionate patient care as nursing students learn to incorporate cognitive, technical, interpersonal, and ethical/legal aspects of skill application. The skills include interventions commonly applied to patients experiencing acute and critically acute health conditions, with an emphasis on safe intravenous medication administration, ECG interpretation and life-saving nursing interventions. Students will apply this knowledge through the nursing process and clinical reasoning in an acute care clinical setting as they assume the roles of practitioner, educator, advocate, and researcher.

Upon completion of this course, students will be able to:

- Demonstrate nursing care in a safe manner in an instructor supervised skills laboratory and real-life patient care settings.
- Collect subjective and objective health assessment data for adult patients in an acute care setting.
- Apply the nursing process as a method for clinical reasoning and decision making.
- Demonstrate accurate calculation and administration of medication dosages including intravenous therapy.
- Demonstrate accurate and complete documentation of patient care in the DocuCare electronic medical record.
- Demonstrate the following procedures according to best practices and evidenced based research: Medication Administration, Skin Integrity and Wound Care, Comfort and Pain Management, Nutrition, Urinary Elimination, Bowel Elimination, Oxygenation: suctioning, Cardiovascular, Fluid, Electrolyte, and Acid-Base Balance, and Laboratory Specimen collection.
- Apply the nursing process to patients experiencing pain, fluid and electrolyte imbalance, surgery, and disorders of gas exchange, digestion, renal, sensory, and integumentary dysfunction.
- Implement safe, effective nursing care for patients with pain, fluid and electrolyte imbalance, perioperative needs, and disorders of gas exchange, digestion, renal, sensory, and integumentary dysfunction through the nursing roles of practitioner, educator, advocate, and researcher.
- Demonstrate nursing interventions to promote basic needs including activity and exercise; patient safety;

hygiene; oxygenation, fluid, electrolyte and acid base balance; sleep; pain management; nutrition; urinary elimination; bowel elimination; skin integrity and wound care; and sensory alterations.

NURS 3270 CULTURAL DIVERSITY & HEALTH 30/0/2.0

This course focuses on the role of the nurse to address the needs of clients in diverse populations across the life span. Theory and research-based evidence from nursing and other disciplines are integrated with concepts of caring and cultural competences. Concepts such as cultural awareness, readiness, sensitivity, and cultural education will be emphasized. In partnership with clients, the student develops, implements, and evaluates a cultural teaching plan designed to produce a desired change in behavior.

Upon completion of this course, student will be able to describe influences that affect culturally competent healthcare; describe how diversity affects health and illness care, including culturally based traditional care; and describe cultural competence when assessing and providing nursing care for patients from diverse cultural groups.

NURS 3384 NURSING RESEARCH 45/0/3.0

This course helps students learn how to read and critique research reports and to develop an appreciation of research as a path to enhancing nursing practice.

Upon completion of this course, students will be able to discuss the need for evidence-based practice, compare quantitative research with qualitative research. Identify the components of a well-worded clinical question and be able to frame such a question. Students will also be able to describe the flow and sequence of activities in quantitative and qualitative research and discuss why they differ and describe aspects of a research critique.

Students will also be able to describe the process of developing and refining a research problem and understand the process of screening, abstracting, critiquing, and organizing research evidence. Students will be required to describe approaches for assessing the reliability and validity of measures, and critique researchers' interpretation of their results in a discussion section of a report.

NURS 3340 MEDICAL SURGICAL NURSING II 45/0/3.0

This course provides an understanding of the nurse's role in patient-centered care within evolving practice environments and across the spectrum of health and illness. This course will address nursing care issues including cancer care; end-of-life care; hematologic; immunologic; musculoskeletal; metabolic; endocrine; and reproductive function from a physiologic, pathophysiologic, and psychosocial context. Students will apply this knowledge through the nursing process and clinical reasoning in an acute care clinical setting as they assume the roles of practitioner, educator, advocate and researcher through the NURS 3340L Medical Surgical Nursing II Lab/Clinical course which must be taken concurrently.

Upon completion of this course, students will be able to discuss end-of-life issues and care as they relate to professional nursing practice. They will be able to demonstrate a comprehensive understanding of cancer, hematologic, immunologic, musculoskeletal, metabolic, endocrine, and reproductive function, and apply the nursing process to patients experiencing cancer, hematologic, immunologic, musculoskeletal, metabolic, endocrine, and reproductive dysfunction. Students will also be able to describe safe, effective nursing care for patients with cancer, hematologic, immunologic, musculoskeletal, metabolic, endocrine, and reproductive dysfunction through the nursing roles of practitioner, educator, advocate, and researcher.

NURS 3440L MEDICAL SURGICAL NURSING II LAB/CLINIC 0/120/4.0

This course provides an opportunity for students to apply their growing knowledge base of adult medical surgical conditions through the nursing process and clinical reasoning in an acute care clinical setting as they assume the roles

of practitioner, educator, advocate, and researcher. This course must be taken concurrently with NURS 3340 Medical Surgical Nursing II.

Upon completion of this course, students will be able to demonstrate nursing care in a safe manner in an instructor supervised real life patient care setting. Students will be able to collect subjective and objective health assessment data for adult patients in an acute care setting and apply the nursing process as a method for clinical reasoning and decision making. They will be able to demonstrate accurate calculation and administration of medication dosages, to include intravenous therapy, and demonstrate accurate and complete documentation of patient care in the DocuCare electronic medical record.

Students will demonstrate all procedures learned in previous semesters according to best practices and evidenced based research. Students will apply the nursing process to patients experiencing cancer, hematologic, immunologic, musculoskeletal, metabolic, endocrine, and reproductive dysfunction. Students will implement safe, effective nursing care for patients with cancer, hematologic, immunologic, musculoskeletal, metabolic, endocrine, and reproductive dysfunction through the nursing roles of practitioner, educator, advocate, and researcher. Lastly, students will demonstrate nursing interventions to promote basic needs including activity and exercise; patient safety; hygiene; oxygenation, fluid, electrolyte and acid base balance; sleep; pain management; nutrition; urinary elimination; bowel elimination; skin integrity and wound care; and sensory alterations.

NURS 3250 MENTAL HEALTH 30/0/2.0

This course provides a foundation for the nurse's role in mental health care. This course will present sound nursing theory, therapeutic modalities, and clinical applications across the treatment continuum and in various clinical settings using a nursing process framework. Students will apply this knowledge through the nursing process and clinical reasoning in an inpatient psychiatric clinical setting as they assume the roles of practitioner, educator, advocate, and researcher through NUR350L Mental Health Lab/Clinical which must be taken concurrently.

Upon completion of this course, students will be able to discuss current trends in the treatment of people with mental illness and discuss neuro-biologic theories and medication management for patients with mental illness. They will be able to explain the basic beliefs and approaches of the contemporary psychosocial theories of mental illness and describe different types of residential and community treatment settings and the services they provide. Students will be able to demonstrate effective therapeutic responses to simulated client situations and obtain and organize psychosocial assessment data to use as a basis for planning nursing care. They will also be able to identify legal and ethical issues in the practice of psychiatric nursing and apply the nursing process to the care of clients.

NURS 3150L MENTAL HEALTH LAB/CLINICAL 0/30/1.0

This course emphasizes safe, effective, compassionate patient care as nursing students learn to incorporate cognitive, technical, interpersonal, and ethical/legal aspects of nursing care to patients with mental health disorders. Students will use therapeutic communication and evidence-based interventions as they apply the nursing process to deliver holistic care in an in-patient mental health clinical setting through the roles of practitioner, educator, advocate, and researcher.

Upon completion of this course, students will be able to demonstrate nursing care in a safe manner to patients in an instructor-supervised patient care setting. Collect subjective and objective data for patients in a residential psychiatric care setting. Students will also be required to use effective communication with patients, instructor, and peers, demonstrate accurate and complete documentation of patient care in the DocuCare electronic medical record. Lastly, students will apply the nursing process to the care of clients experiencing grief and loss; anger, hostility, and aggression; abuse and violence; and psychiatric disorders including trauma and stressor-related, anxiety, obsessive-compulsive, schizophrenia, mood, suicide, personality, addiction, eating disorders, somatic, neurodevelopmental, disruptive behavior, and cognitive disorders.

NURS 3320 COMMUNITY HEALTH NURSING 30/30/3.0

This course focuses on evidence-based practice in community and public health nursing by blending the nursing process and the epidemiologic process to provide a framework for gathering evidence about health problems, analyzing the information, generating diagnoses or hypotheses, planning for resolution, implementing plans of action, and evaluating the results. Students will understand the nurse's role as a change agent and leader in implementing culturally appropriate, community- based programs to remedy the conditions that contribute to health disparities. The five common specialty practices of mental health, school health, faith-oriented communities, palliative care, and occupational health nursing are explored. This course must be taken concurrently with NUR420L Community Health Nursing Lab/Clinical.

Upon completion of this course, students will be able to discuss the challenges for public health nurses in the 21st century to include infectious and communicable diseases, emerging infectious diseases, violence and abuse, substance use, underserved populations, environmental health, and community preparedness for disaster and terrorism. Students will be able to describe the structure of public healthcare in the United States and discuss the role of nurses in informing healthcare policies. They will describe key indicators of health that can be measured or used as benchmarks to examine the health outcomes of a population. Furthermore, students will be required to identify epidemiologic and health behavior change models of health promotion and modifiable risk reduction and generate research questions related to problems identified in community and public health nursing practice.

N**URS 4370 MEDICAL SURGICAL NURSING III 45/0/3.0**

This course provides an understanding of the nurse's role in patient-centered care within evolving practice environments and across the spectrum of health and illness. This course will address nursing care issues including shock; multiple organ dysfunction; trauma; cardiovascular; circulation; burns; neurologic; and emergencies from a physiologic, pathophysiologic, and psychosocial context. Students will apply this knowledge through the nursing process and clinical reasoning in an acute care clinical setting caring for high acuity patients as they assume the roles of practitioner, educator, advocate and researcher in the NURS 4370L Medical Surgical Nursing III Lab/Clinical course which must be taken concurrently.

Upon completion of this course, students will be able to demonstrate a comprehensive understanding of shock, multiple organ dysfunction, trauma, cardiovascular, circulation, burns, and neurologic function. They will be able to describe the nursing process for patients experiencing emergencies, shock, multiple organ dysfunction, trauma, cardiovascular, circulation, burns, and neurologic dysfunction. Furthermore, students will be able to discuss safe, effective nursing care for patients with emergencies, shock, multiple organ dysfunction, trauma, cardiovascular, circulation, burns, and neurologic dysfunction through the nursing roles of practitioner, educator, advocate, and researcher.

NURS 4370L MEDICAL SURGICAL NURSING III LAB/CLINICAL 0/120/4.0

This course provides an opportunity for students to apply their growing knowledge base of adult medical surgical conditions through the nursing process and clinical reasoning in an acute care clinical setting for high acuity patients as they assume the roles of practitioner, educator, advocate and researcher. This course must be taken concurrently with NURS 4370 Medical Surgical Nursing III.

Upon completion of this course, students will be able to demonstrate nursing care in a safe manner in an instructor supervised real life patient care setting and collect subjective and objective health assessment data for adult patients in an acute care setting. They will apply the nursing process as a method for clinical reasoning and decision making. They will be able to demonstrate accurate calculation and administration of medication dosages including intravenous therapy and demonstrate accurate and complete documentation of patient care in the DocuCare electronic medical

record. Where opportunities are available in the real- life patient setting, they will be able to demonstrate all procedures learned in previous semesters according to best practices and evidenced based research, and apply the nursing process to patients experiencing emergencies, shock, multiple organ dysfunction, trauma, cardiovascular, circulation, burns, and neurologic dysfunction.

Students will further implement safe, effective nursing care for patients with emergencies, shock, multiple organ dysfunction, trauma, cardiovascular, circulation, burns, and neurologic dysfunction through the nursing roles of practitioner, educator, advocate, and researcher. Lastly, students will be able to demonstrate nursing interventions to promote basic needs including activity and exercise; patient safety; hygiene; oxygenation, fluid, electrolyte and acid base balance; sleep; pain management; nutrition; urinary elimination; bowel elimination; skin integrity and wound care; and sensory alterations.

NURS 4460 MATERNAL CHILD NURSING 60/0/4.0

This course focuses on evidence-based practice and family-centered care in maternity and pediatric nursing. The topics of pregnancy, labor, and birth, postpartum, newborn, growth, and development of the well child from newborn through adolescence, health promotion for well children as well as care of the child with a health disorder are explored. Students apply the knowledge in acute care hospital clinical units during NUR360L Maternal Child Nursing Lab/Clinical which must be taken concurrently.

Upon completion of this course, students will be able to examine the major components and key elements of family-centered care and describe maternal physiologic changes that occur during pregnancy, to include nursing management to promote maternal self-care and to manage high-risk pregnancy. Students will be able to explain the tests used to assess maternal and fetal well-being, including nursing management for each, summarize the nursing care throughout the labor and birth process, and plan postpartum nursing care with interventions to reduce common postpartum complications and foster maternal/infant bonding. Students will be required to discuss the areas of health education needed for discharge planning, home care, and follow-up, and describe a nursing care plan to address common issues related to growth and development for newborns through adolescents. Lastly, students will apply the nursing process to the care of children with special needs and health disorders affecting each body system. Identify appropriate nursing assessments and interventions for the child with a mental health disorder.

N**URS 4460L MATERNAL CHILD NURSING LAB/CLINICAL 0//60/2.0**

This course focuses on evidence-based practice and family-centered care in maternity and pediatric nursing. Nursing skills for maternal, newborn, and childcare are included in the laboratory component. Students apply the knowledge in acute care hospital labor and delivery, postpartum, newborn nursery, and pediatric clinical units. This course must be taken concurrently with NUR360 Maternal Child Nursing.

Upon completion of this course, students will be able to demonstrate nursing care in a safe manner in an instructor supervised skills laboratory and real-life patient care settings and collect subjective and objective health assessment data for women, infants, and children in an acute care setting. They will apply the nursing process to a woman in labor as a method for clinical reasoning and decision making, demonstrate postpartum nursing care with interventions to reduce common postpartum complications and foster maternal/infant bonding, and demonstrate health education to parents for discharge planning, home care, and follow- up. Students will implement a nursing care plan to address common issues related to growth and development for newborns through adolescents.

Students will be able to apply the nursing process to the care of children with special needs and health disorders affecting each body system, demonstrate care of the normal newborn, and use effective communication with patients, instructor, and peers. Students are expected to demonstrate accurate calculation and administration of medication dosages including intravenous therapy and demonstrate accurate and complete documentation of patient care in the DocuCare electronic medical record.

In a simulated laboratory setting and where opportunities are available in a real-life patient setting, students will demonstrate the following procedures according to best practices and evidenced based research:

- Assessment: maternal and newborn, pediatric.
- Antepartum Care: Intrapartum vaginal exam, administration of RhoGAM.
- Intrapartum Care: Assisting with amniotomy; auscultating fetal heart rate, external and internal electronic fetal monitoring, monitoring a patient undergoing induction of labor, caring for a patient with an
- Epidural Postpartum Care: assessing the perineum, assessing the uterine fundus following birth, evaluating lochia, assisting with breast feeding
- Newborn Care: APGAR scores, thermoregulation, applying, caring for, and removing an umbilical cord clamp, assisting with circumcision, and providing circumcision care, initial newborn bath, phototherapy for infant.
- Medication Administration and Calculation: adult, infant, and children and demonstrate nursing interventions for women, infants and children to promote basic needs including activity and exercise; patient safety; hygiene; oxygenation, fluid, electrolyte and acid base balance; sleep; pain management; nutrition; urinary elimination; bowel elimination; skin integrity and wound care; and sensory alterations.

NURS 4410 NURSING LEADERSHIP & MANAGEMENT 30/60/4.0

This course allows the student to explore management topics while building effective leadership skills, so they may function effectively in the rapidly changing health-care industry. Students will delve into management and leadership issues such as operational planning, planned change, time management, professional advocacy, staffing, motivating, delegation, quality control and conflict resolution are discussed, and will apply this knowledge through the nursing process and clinical reasoning in an acute care clinical setting as they develop their professional role of leader and manager. The NUR410L Nursing Leadership and Management Lab/Clinical course must be taken concurrently.

Upon completion of this course, students will be able to differentiate between leadership roles and management functions, analyze how current and future paradigm shifts in healthcare may affect the leadership skills needed by nurses in the 21st century. They will be able to discuss ethical decision making congruent with the ANA Code of Ethics and Interpretive Statements and professional standards and differentiate between the manager's responsibility to advocate for patients, subordinates, the organization, the profession, and for self. Students will develop a time management tool to complete nursing care according to the priority level they have been assigned and on time. recognize and problem solve budgetary constraints and be able to describe characteristics of magnet designated health-care organizations that exemplify the 14 forces of magnetism. Students will also be able to differentiate among various types of patient care delivery systems and address the unique challenges of building a cohesive team through education and socialization when a diverse workforce exists. Lastly, students will be able to select appropriate staffing policies for a given situation. determine whether delegation to an unlicensed worker is appropriate in each situation, using a decision tree developed by the NCSBN and/or TBON. Describe key components of total quality management

NURS 4250 PROFESSIONAL NURSING ISSUES 30/0/2.0

This course provides an overview of significant issues that impact the nursing profession. Both enduring professional issues and the most pressing contemporary issues facing the profession are explored, to include furthering the profession, issues of the workforce, workplace, nursing education, and legal and ethical issues, and professional power.

Upon completion of this course, students will be able to analyze the potential impacts of raising the educational entry level on the current nursing shortage, workforce diversity, and intra-professional conflict. Describe the driving and restraining forces for increasing the entry educational level for advanced practice nursing to that of a practice doctorate. Evaluate strategies directed at both supply and demand factors that have been proposed to reduce the current nursing shortage. Integrate ethical, legal, and human rights as guides for developing best practices to guard against and respond to workplace violence. Analyze how social media can be effectively used by the professional

nurse. Identify at least three models of transition to practice programs. Discuss consequences of a lack of academic integrity in nursing programs. Compare continuing education requirements for nurses with those for other health care professionals. Identify issues currently being debated in the legislature that affect nursing and health care. Explore the roles and responsibilities that individual nurses, employers, professional associations, and the media must ensure that nurses are portrayed accurately and positively to the public. Describe types of nursing associations and their value to members and the profession.

NURS 4380 PRECEPTORSHIP + LAB/CLINICAL 0/90/3.0

This course builds on the knowledge and skills obtained in the nursing curriculum and integrates the curriculum concepts in varied/diverse practice settings. Synthesis of management, organizational, culture and interpersonal relationship principles are applied with developing independence in the practice of nursing. This course facilitates the students' evaluation of principles and practices of the profession of nursing while assisting in the role transition to a practicing registered nurse. Clinical environments could be, but are not limited to medical/surgical, mental health, pediatric, maternity, critical care, home, nursing home and extended or ambulatory care units.

Upon completion of this course, the students will be able to deliver holistic nursing care to groups of patients consistent with the job description for a registered nurse in the assigned clinical practice setting and apply the nursing process and critical thinking skills when implementing safe, appropriate, and caring interventions within the professional nursing scope of practice. Students will be able to demonstrate effective management of both the patients and staff through collaboration and delegation and evaluate how the organizational design and culture of the health care system affects the delivery of nursing care. Lastly, students will be able to demonstrate professional communication techniques when interacting with staff, patients, and families and evaluate the legal and ethical aspects of the professional nursing role in the assigned clinical practice setting. Students will use standards of practice to evaluate care administered by the interdisciplinary health care team, as they participate in coordination of patient transfer to and from the assigned clinical practice unit and/or setting.

NURS 4390 NURSING CAPSTONE 45/0/3.0

This course prepares students to transition to the professional nursing role as an entry-level registered nurse. Students will understand the importance of effective inter- and intra-professional communication and work dynamics, the employment process, career development, nursing jurisprudence related to the provision of safe and effective nursing care, and preparation for the NCLEX-RN examination.

Upon completion of this course, students will be able to identify individual nursing content areas of mastery and weakness and develop an individualized study plan for the NCLEX-RN. Students will be required to discuss differentiated practice as it applies to Texas Board of Nursing educational outcomes for graduates of Texas nursing programs, and explain the competencies needed by the new graduate as outlined by the job analysis study that is the basis for the NCLEX-RN. They will meet the Texas Board of Nursing criteria for successful completion of the Texas Nursing Jurisprudence examination, and develop a personal career plan, create a professional portfolio. Lastly, students will demonstrate a variety of communication modes for effective organizational communication. Describe group dynamics and roles to facilitate communication and productivity.

NOTE: ENGL 1301, PHIL 1301, HIST 1301, MATH 1312, SPCH 1315, PSYC 2310, ENGL 1302, and MATH 1342 all include 45 hours of lecture and have the same course descriptions and credit values as the courses listed with the same course codes in the General Education Section.

BACHELOR OF SCIENCE IN TECHNICAL MANAGEMENT (COMPLETION PROGRAM)

Available at 9451 Diana Drive Campus (Online)

Individuals pictured above are actors, students and/or employees of Western Tech

Career Opportunities in Technical Management

The Bachelor of Science in Technical Management completion program will help students cultivate various skills and assets needed by businesses. Supervisors directly oversee and coordinate the activities of clerical and administrative support workers. A technical management degree connects technical skills with business practices to help you understand how to implement management solutions across the technical field. Supervisors of office and administrative support workers held about 1,521,800 in 2021 nationally. There was above average growth rate in colleges and universities, office administrative services, and an average growth rate in business support services. There are to be 11,647 more job openings in Texas by 2030. (Source: D.O.L. Occupational Outlook Handbook, 2021-2031 Edition).

Labor Market Information (2021 through 2031) Projections)	Texas	National
Labor Market Information Employment 2021	123,677	1,443,630
Projected Employment 2021	135,324	1,521,800
Absolute Change 2021-2031	11,647	171,500
Percent Change 2021-2031	9.4%	12.10%
Average Hourly Wage 2021	$29.18	$30.47
Average Annual Openings	2,745	Not available
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

BACHELOR OF SCIENCE IN TECHNICAL MANAGEMENT (COMPLETION PROGRAM)
COURSES 1-20
960 CLOCK HOURS
60 SEMESTER CREDIT UNITS (TWC & THECB)
60 SEMESTER CREDIT HOURS (ACCSC)

Educational Objectives

The Bachelor of Science in Technical Management completion program will help students learn to cultivate a variety of skills and assets needed by businesses. The program will provide students with the knowledge and

technical skills needed for positions in business and may also provide students with opportunities for career advancement. The program provides training in a variety of courses to include Accounting, Principles of Lean Six Sigma, Project Management, Operations, among others. It will also provide hands-on experience in Microsoft Word and Excel. This program provides General Education, technical, and specialized courses that will prepare the graduate for careers in private, public, and government sectors. Students may find employment as, business managers, general manager, operation coordinator, logistics clerk, project coordinator, project manager sales manager among other business management positions.

Entrance Requirements

To be eligible for enrollment into the Bachelor of Science in Technical Management completion program, a prospective student must have earned a associates degree recognized by the United States department of education. Classes are taught in English; therefore, an adequate level of proficiency in reading, writing, and speaking the English language is required.

Prospective students must have an earned associate degree in a technical or technology program in order to enroll into the in the BSTM completion program.

prospective students with an earned associate of applied science (AAS) or associate of science (AS) with 15 general education credits can enter the program with no additional prerequisites.

Prospective students with an earned associates of occupational science (AOS) degree must take additional gen ed courses to complete 15 required general education credits prior to enrollment. The required 15 credits of general education courses include ENGL 1301, SCOM 1315, MATH 1312, PHYS 1401, and PSYC 2301.

Note: Prospective students can be awarded exemption credits based on related work experience**.**

Online Program/Courses

Students who enroll in the Bachelor of Science in Technical Management completion program will receive training through an online delivery system, that is, a portion of their training is provided in a combination of classes being offered online. Specifically, this program will provide 100% of the training and education online.

Online courses are web-based and delivered over the Internet using Western Tech's Learning Management System (Canvas). The system provides both synchronous and asynchronous tools used for on-line delivery. The on- line content of the course is covered by using a variety of on-line educational activities such as discussion boards, chat sessions, conference sessions, case studies, lab simulations, and quizzes. In an online program, the content is organized for the student to have the flexibility to complete the on-line activities based on their personal/work schedules.

Regardless of the mode of delivery, students entering this program can expect the same level of support as on-ground students to include tutoring services, technical support, employment preparation and assistance with job leads, and access to the school's library.

Participation in online classes is vital to successful program completion. Students must have Internet access in order to fulfill course requirements and succeed in their classes. In addition, students must have a minimum level of comfort with technology, as they may find themselves needing to access course work online.

For that reason, all prospective students considering enrollment in any of the online programs are required to take a short "Suitability for Distance Education" survey before they enroll in school. The survey is designed to identify the prospective student's level of proficiency in the use of technology. Students can expect support in the form of training tailored to their identified needs so that they can handle the demands of the Learning Management System that houses much of their work.

GRADUATION REQUIREMENTS

To be eligible for graduation, a student must complete all required courses in the BSTM curriculum including the capstone course; maintain a Cumulative Grade Point Average (CGPA) of 2.0; and successfully pass each course with at least a 2.0.

NOTE: The sequential order of the classes may differ from that included in the program outline

Technical Standards and Essential Functions

Western Tech's Bachelor of Science in Technical Management completion program is an online program. It has established technical standards and essential functions for the program as more fully listed below. The ability to meet these standards and essential functions, with or without reasonable accommodation, is required in order to complete the program satisfactorily. Please review the following technical standards and essential functions carefully.

1. The ability to understand course materials and maintain a certain grade/performance level that meets the set academic requirements.
2. The ability to maintain a professional demeanor at all times and interact professionally with fellow students, administration and faculty.
3. The ability to listen, understand, and communicate ideas presented through spoken words and sentences.
4. The ability to match or detect differences between colors, including shades of color and brightness.
5. The ability to work with others in a team environment.
6. The ability to respect instructor, and classmates.
7. The ability to utilize computers and perform basic computer functions with programs such as Word, Outlook, and Excel.
8. Must be able to utilize E-Books

Western Tech does not discriminate in admission or access to programs on the basis of any characteristic protected by law, including disability. Persons with disabilities are eligible for admission, as long as, they can carry out classroom, laboratory and internship assignments; pass written, oral and practical examinations; and meet all of the requirements of the program and generally accepted requirements of the profession, with or without reasonable accommodation. Western Tech will make reasonable accommodations for disabilities. Applicants and students who require accommodation should contact the Campus President and submit a written request for accommodation.

BACHELOR OF SCIENCE IN TECHNICAL MANAGEMENT
(Completion program)

#	COURSE	TITLE	HRS.	THEORY LAB	PERCENTAGE ONLINE	TWC/ THECB SCU	ACCSC SCH
1	BMGT 3300	Business Practices	48	48/0	100%	3.0	3.0
2	PSYC 3648	Organizational Psychology (Gen Ed)	48	48/0	100%	3.0	3.0
3	BMGT 3327	Management Practices	48	48/0	100%	3.0	3.0
4	HRPO 3301	HR Management	48	48/0	100%	3.0	3.0
5	ENGL 3302	Technical Writing (Gen Ed)	48	48/0	100%	3.0	3.0
6	IBUS 3300	Logistics Management	48	48/0	100%	3.0	3.0

7	MATH 3342	Statistics (Gen Ed)	48	48/0	100%	3.0	3.0
8	ACNT 3525	Accounting for Managers	48	48/0	100%	3.0	3.0
9	MKTG 3311	Sales and Marketing	48	48/0	100%	3.0	3.0
10	PHIL 3302	Ethics (Gen Ed)	48	48/0	100%	3.0	3.0
11	FINA 3315	Business Finance	48	48/0	100%	3.0	3.0
12	LSSY 3310	Principles of Lean Six Sigma	48	48/0	100%	3.0	3.0
13	POLS 3303	American Government and Politics (Gen Ed)	48	48/0	100%	3.0	3.0
14	BMGT 3322	Service Operations Management	48	48/0	100%	3.0	3.0
15	BMGT 4302	HR Development	48	48/0	100%	3.0	3.0
16	BMGT 4301	Project Management	48	48/0	100%	3.0	3.0
17	BMGT 4322	Production/Operation Management	48	48/0	100%	3.0	3.0
18	BCIS 4312	Management Information	48	48/0	100%	3.0	3.0
19	BMGT 4388	Professional Issues	48	48/0	100%	3.0	3.0
20	BMGT 4300	Capstone	48	48/0	100%	3.0	3.0
*A student with an associate degree may transfer up to 60 credits						**60**	**60**
Total Hours - Bachelor of Science in Technic Management (completion program)			**960**	**960/0**		**120**	**120**

Note: Courses with prerequisites are denoted in the course outline with an asterisk (*).

Course 1
BMGT 3300
Business Practices 48/0/3.0
This course is designed to prepare students for the advanced learning experience at Western Technical College. Students will be given, opportunities to develop and strengthen the skills necessary to succeed as students in the College of Business. Topics such as business environment, management, organization, marketing, finance, accounting, and data processing are discussed, among other business topics.

Upon completion of this course, the student will be able to do the following:

1. Demonstrate an understanding of the major functions of business including management, accounting/finance, marketing, investments, and information technology.
2. Present major business concepts in writing and orally using proper business communication techniques.
3. Explain why business ethics is an integral part of every business organization.

COURSE 2
PSYC 3648
Organizational Psychology (General Ed) 48/0/0/3.0 This course will provide the students with a scientific examination of how human cognition, attitudes, and behavior are affected by the context of leaders, co-workers,

and organizational policies, structure, culture, and so on. Core topics include motivation, leadership, group and team performance, job attitudes, organizational climate and culture, and organization development.

Upon completion of this course, the student will be able to do the following:

1. Discuss major topics and subspecialties including critical theory and research findings that have defined the field of organizational psychology
2. Discuss the complicated systems of individual and group psychological processes involved in the world of work.
3. Connect principles of organizational psychology to personnel and human resources management within the organization
4. Explore the ways in which individual career choices and work-life success can be improved through the guidelines of organizational psychology
5.

COURSE 3
BMGT 3327
Management Practices 48/0/0/3.0

This course will help students will learn to apply management concepts about decision making, foundations of planning, managing change, effective communication, operations management, and team building.

Upon completion of this course, the student will be able to do the following:

1. Identify management, organizational structure, and operations management
2. Describe globalization's affects on business organizations
3. Apply the foundations of decision making
4. Understand the foundations of human behavior as they apply to motivating and rewarding employees
5. Demonstrate how to manage communication and information

COURSE 4
HRPO 3301
Human Resources Management 48/0/0/3.0

This course provides an in-depth study of personnel management or human resource management. It includes the process of acquiring, training, appraising, and compensating employees and of attending to their labor relations, health and safety, and fairness concerns.

Upon completion of this course, the student will be able to do the following:

1. Explain why human resource management is important to all managers and describe the trends that are influencing it.
2. Summarize the basic equal employment opportunity laws and how each impacts HR functions such as recruitment and selection
3. Explain the basic defenses against discrimination allegations and provide examples of what employers can and cannot legally do with respect to recruitment, selection, and promotion and layoff practices
4. Write job descriptions, including summaries and job functions, using the Internet and traditional methods
5. Explain and give examples of the need for branding in effective recruiting
6. Explain how to do a background check on job candidates
7. List and explain the five steps in the training process and the pros and cons of at least eight performance appraisal methods

COURSE 5
ENGL 3302
Technical Writing (Ged Ed) 48/0/0/3.0
Technical Writing prepares students to design effective technical documents for both written and digital media, with particular emphasis on technical memos, problem-solving and decision-making reports, and organizational, product-support, and technical-information webs. To support these writing tasks, the course provides an introduction to principles of audience analysis, research and documentation, drafting and revision processes, readability and accessibility of written texts, and basic web technologies.

Upon completion of this course, the student will be able to do the following:

1. Design effective technical documents for both print and digital media
2. Understand and use structures of argument appropriate to technical documents, including problem-solving and decision-making structures
3. Understand and use information designs appropriate to technical documents in digital environments
4. Understand and use a range of current web platforms and technologies
5. Write standard English prose and cite sources in conventional forms and formats

COURSE 6
IBUS 3300
Logistics Management 48/0/0/3 This course will have students explore logistics and all of its components. Those include financial logistics, inventory management logistics, warehouse management logistics, packing and materials handling logistics, and transportation logistics. The course will also address the ways in which technology affects the overall environment of logistics, organizational and managerial issues in logistics, the importance of facility location, and transportation infrastructures.

Upon completion of this course, the student will be able to do the following:

1. Describe a supply chain and define supply chain management.
2. Explain the importance of logistic management and supplier partnership
3. Explain the role of demand forecasting.
4. Compare and contrast the various modes of transportation and their impacts on cost
5. Understand the various causes of the bullwhip effect and how they impact process

COURSE 7
MATH 3342
Statistics (General Ed) 48/0/0/3.0
This course covers collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and confidence intervals.

Upon completion of this course, the student will be able to do the following:

1. Recognize, examine, and interpret the basic principles of describing and presenting data
2. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics
3. Explain the role of probability in statistics
4. Examine, analyze, and compare various sampling distributions for both discrete and continuous random variables
5. Describe and compute confidence intervals

6. Solve linear regression and correlation problems

COURSE 8
ACNT 3525
Accounting for Managers 48/0/3.0
This course will help student develop an understanding of accounting principles relating to business operations. The course will concentrate on generally accepted principles, the accounting process, assets, and liabilities. Students will be able to analyze financial statements for decision makers.

Upon completion of this course, the student will be able to do the following:

1. Examine income statements, statements of retained earnings, and balance sheets
2. Explain assets, liabilities, and owner's equity
3. Explain the importance of financial statements
4. Use revenue and expense accounts
5. Understand the General Ledger
6. Explain how financial statements are used to analyze a business
7. Perform a horizontal and vertical analysis of financial statements
8. Calculate and explain financial ratios

COURSE 9
MRKG 3311
Sales and Marketing 48/0/0/3.0
This course involves the systematic planning, implementation, and control of a mix of business activities intended to bring together buyers and sellers. This helps students to understand the interacting business activities designed to plan, price, promote and distribute products and services to present and potential customers. The course incorporates current developments in marketing to acquaint students with the challenges of marketing activities. Students will be introduced to facets of sales management, including estimating sales potential and forecasting sales, manning territories, selecting, training, motivating, supervising and compensating the sales force, and interfacing with other company functions.

Upon completion of this course, the student will be able to do the following:

1. Understand the marketplace and customers and identify the fire core marketplace concepts
2. Describe customer relationship management and identify strategies for creating value for customers and capturing value from customers in return
3. Create business portfolios and develop growth strategies and describe how companies analyze and use marketing information
4. List and define the major types of buying decision behavior and the stages in the buyer decision process
5. Delineate the major steps in designing a customer-driven marketing strategy: market segmentation, targeting, differentiation, and positioning
6. Describe ways in which companies find and develop new-product ideas
7. Identify the three major pricing strategies and discuss the importance of understanding customer-value perceptions, company costs, and competitor strategies when setting prices
8. Explain the need to understand competitors as well as customers through competitor analysis

COURSE 10
PHIL 3302
Ethics (Ged Ed) 48/0/0/3.0
This course introduces students to topics and core problems relating to the moral evaluation of human motivation and action. The course examines the positions of classical philosophers such as Aristotle, Hume, Kant, Mill, and Sartre, as well as contemporary moral problems that relate to human rights, animal rights, and environmental ethics.

Upon completion of this course the student will be able to do the following:
1. Read, explicate, analyze, and evaluate philosophical literature
2. Write and express themselves well about their own ethical positions
3. Think critically and analytically about ethical issues

COURSE 11
FINA 3315
Business Finance 48/0/0/3.0
This course provides an overview of business financial management. Emphasis is on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

Upon completion of this course, students will be able to do the following:
1. Apply the business finance principles that support the overall financial strategy of the organization
2. Apply the standard and accepted accounting principles when reporting, recording, and projecting financial information
3. Explain the structure of financial statements
4. Effectively utilize the time value of money and financial return and risk concepts to conduct professional financial analyses
5. Identify the primary determinants of market interest rates and describe the responses to changes to those rates in terms of supply and demand for loanable funds.

COURSE 12
LSSY 3310
Principles of Lean Six Sigma 48/0/0/3.0/3.0
This upper-level course is designed to introduce the student to Lean Six Sigma, a method that provides organizations tools to improve the capability of their business processes. Increases in performance and decreases in process variation lead to defect reduction and improvement in profits, employee morale, and quality of products or services. The Six Sigma method adopts the approach of advancing the concept and potential of using Six Sigma tools and methodologies within an organization. Students will develop skills necessary to identify, monitor, and control “profit-eating” practices in a process.

Upon completion of this course, the student will be able to do the following:
1. Explain the role of a Lean Six Sigma Yellow Belt within the organization
2. Participate as a project team member
3. Review process improvements that support the project
4. Understand process concepts and variation
5. Understand Six Sigma metrics

COURSE 13
POLS 3303
American Government and Politics (Ged Ed) 48/0/0/3.0
This course is a survey of contemporary American national, state, and local political processes and institutions with emphasis on the Constitutions of the United States and Texas.

Upon completion of the course, students will be able to do the following:

1. Understand the basic concepts of American democratic thought
2. Analyze the formation, concepts, and components of the United States Constitution
3. Examine the idea of federalism and explain the role of states and the national government
4. Identify America's major political parties and their core beliefs
5. Understand the electoral process in the United States
6. Describe and explain the organization and purpose of the Legislative, Executive, and Judicial branches of government
7. Understand the role and structure of the federal bureaucracy
8. Describe the relationship between the state of Texas and the federal government
9. Compare the Texas state constitution with the national Constitution

COURSE 14
BMGT 3322
Service Operation Management 48/0/0/3.0
This course examines strategies for achieving operational competitiveness in service businesses in a global service economy. Learners will be introduced to strategic and tactical aspects of managing the operations, marketing, and human resources functions to control resources and deliver services to customers. Learners will explore challenges faced by service operations managers, customer expectations and perceptions.

Upon completion of this course, the student will be able to do the following:

1. Create distinctive and sustainable service strategies
2. Execute service models that enable customers, employees, and owners to thrive simultaneously
3. Productively leverage data and analytics
4. Adapt to evolving customer needs and changing competitive landscapes

COURSE 15
BMGT 4302
HR Management Development 48/0/0/3.0
This upper-level course is concerned with the development of knowledge and skills needed for productive and satisfying work that is critical to organizational success. Understanding these skills will help students provide vital services for their employees, employers, corporations and society.

Upon completion of the course students will be able to do the following:

1. Explain Human Resource Development (HRD) and the need for HRD
2. Design, implement, and evaluate HRD programs
3. Coach employees and manage their performance
4. Provide employee counseling, well-being, and wellness
5. Guide employees through career management and development

COURSE 17
BMGT 4322
Production/Operation Management 48/0/3.0
This course examines the functional area of production and operations management in the manufacturing industry. Topics include decision-making, capacity planning, aggregate planning, forecasting, inventory management, distribution planning, materials requirements planning (MRP), project management, and quality control.

Upon completion of this course, students will be able to do the following:

1. Identify product and process designs
2. Implement productivity improvement and explain Quality Management
3. Students will understand new product development and apply forecasting methods and capacity planning measures

COURSE 18
BCIS 4312
Management Information Systems 48/0/3.0
This course explores current information systems concepts and technologies. Students learn how information systems give a business or organization a competitive edge by providing technologies that help managers plan strategies, control events, and make decisions. The exploration includes topics such as hardware and software components of an information system, e-business concepts and implementation, and a survey of common information systems used today.

Upon completion of this course, students will be able to do the following:

1. Explain why information systems are important for business and management
2. Evaluate the role of the major types of information systems in a business environment and their relationship to one another
3. Assess the impact of the internet on business electronic commerce and electronic business
4. Identify the major management challenges to building and using information systems and be able to find appropriate solutions to those challenges
5. Describe an IT infrastructure and its components
6. Describe the core activities in the systems development process
7. Cultivate skills and experience in the development and implementation of information systems projects

COURSE 19
BMGT 4388
Professional issues 48/0/3.0
This course will introduce students to a variety of ethical frameworks and critical thinking skills and ways to use them as analytical tools to consider a variety of social, ethical, and professional issues that have arisen or that take on different forms in business management. Students will have the opportunity to improve their ethical analysis, discussion, leadership, speaking, and writing skills.
Upon completion of this course, students will be able to do the following:

1. Articulate their responsibilities as business professionals
2. Apply ethical frameworks and critical thinking skills to management-related scenarios
3. Create, analyze, and critique arguments surrounding social and ethical aspects of management
4. Discuss concerns about the social and ethical aspects of management
5. Develop strategies for decision making for management ethics issues

BMGT 4300

Capstone 48/0/3.0

This course will have students develop a detailed project proposal and complete a final capstone project linking the areas of study of the student's BS degree plan with intellectual interests. The final written project will consist of research, reviews, and analysis targeted towards a specified audience. A presentation and submission of the project is required.

Upon completion of this course, the student will be able to:

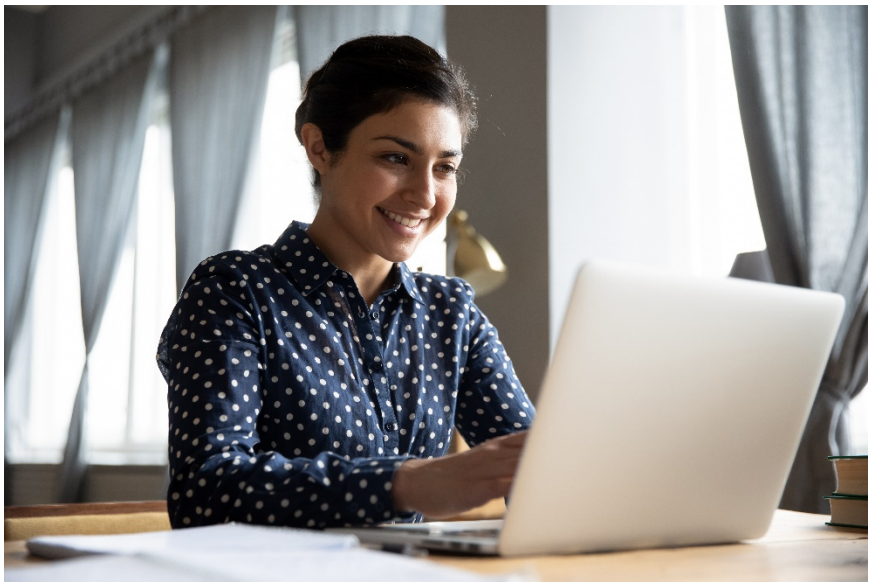
1. Understand the strategy of making process, and their Capstone will identify stakeholders, the mission, governance, and business ethics.
2. Students will conduct an external analysis (the identification of opportunities and threats), building competitive advantage.
3. Propose Strategic Change (implementing strategies to build and develop a company).

Prerequisites: All preceding courses

MASTER DEGREE

MASTER OF BUSINESS ADMINISTRATION

Offered 100% online



Individuals pictured above are actors, students and/or employees of WTC

Career Opportunities in Business Administration

The Master of Business Administration (MBA) will help students cultivate various skills and assets businesses need. An MBA program gives you the fundamental management knowledge needed to gain a holistic view of businesses through the development of soft skills and leadership skills. Managers are responsible for controlling or administering all or part of a company and its workers. Management of companies and enterprises held about 147,000 jobs in 2019. Employment growth is projected to increase by 29.7% in Texas.

Labor Market Information (2016 through 2026 Projections)	Texas	National
Labor Market Information Employment 2019	147,000	2,376,400
Projected Employment 2026	150,397	2,541,400
Absolute Change 2016-2026	34,438	165,000
Percent Change 2016-2026	22.89%	7.0%
Average Hourly Wage 2016	$51.05	$51.79
Source: The Labor Market & Career Information Department (LMCI) of the Texas Workforce Commission www.lmci.state.tx.us		

Mission Statement

Develop critical thinkers, problem solvers and skilled leaders to transform the business world.

Educational Objectives

The Master of Business Administration program will help students learn to cultivate a variety of skills and assets needed by business leaders and managers. The program will provide students with the knowledge and technical skills needed for positions in business which may also provide students with opportunities for career advancement. The program aims to develop leaders who synthesize and communicate ideas effectively and analyze

and integrate innovative and credible solutions to organizational problems. Possible positions for graduates include but not limited to Management, Finance, Accountant and Auditors, General and operations managers, Sales representative and manager, Financial Analysts, and Human resources.

Entrance Requirements

To be eligible for enrollment into the Master of Business Administration program, a prospective student must have earned a Baccalaureate degree recognized by the United States Department of Education. An official transcript must be come directly from the college or university and sent to the Admissions Department to be considered. Students will also be required to write a letter of interest that will be reviewed by a designated committee. This letter will be used to evaluate the students' level of interest in the business program, learn about the students' goals after earning their degree, and to ensure their success. The letter will also identify any problems that may keep the student from completing the program. Appropriate resources may be recommended, and any areas of concern will be addressed. In addition, the student enrolling into the MBA program will be required to sit for a virtual or face-to-face interview with a school representative(s) for introductions and to ensure that program expectations are clear.

Online Program/Courses

Students who enroll in the Master of Business Administration program will receive training through a fully online delivery system. Western Tech's Learning Management System (Canvas) provides both synchronous and asynchronous tools used for online delivery. The online content of the course is covered by using a variety of online educational activities such as discussion boards, chat sessions, conference sessions, case studies, lab simulations, and pre-recorded presentations. The online classes are organized for the students to have the flexibility to complete the online classroom activities based on their personal/work schedules.

Participation in online classes is vital to successful program completion. Students will provide their own computer that meets the requirements of the online program. Students must have Internet access to fulfill course requirements and succeed in classes. In addition, students must have a minimum level of comfort with technology to access course work online, participate in discussions and collaborate with peers and Instructor.

Class Size

The MBA program aims to provide quality training and skills development to students, and therefore limits class size to 20 students.

Graduation Requirements

To be eligible for graduation, a student must complete all required courses in the MBA curriculum including the capstone course; maintain a Cumulative Grade Point Average (CGPA) of 3.0; and successfully pass each course with at least a 2.0 and must meet general graduation requirements.

Technical Standards and Essential Functions

Students entering this program must be able to meet these standards and perform essential functions with or without reasonable accommodations to be successful in completing this program satisfactorily.

1. The ability to understand course materials and maintain a certain grade/performance level that meets the set academic requirements.
2. The ability to maintain a professional demeanor always and interact professionally with fellow students, employees, administration, and faculty.
3. The ability to listen, understand, and communicate ideas presented through verbal and written communication.
4. The ability to work with others in a team environment.

5. The ability to respect instructor, and classmates.
6. The ability to utilize computers and perform basic computer functions with programs such as Word, Outlook, and Excel.
7. Must be able to utilize E-Books.

MASTER OF BUSINESS ADMINISTRATION
COURSES 1-12
576 CLOCK HOURS
36.0 SEMESTER CREDIT HOURS

NOTE: The sequential order of the classes may differ from that included in the program outline.

MASTER OF BUSINESS ADMINISTRATION

#	Course	Title	Hrs.	Theory/ Lab	% Online	Semester Credit Hours
1	MGMT 5301	Leadership	48	48/0	100%	3.0
2	ACCT 5311	Accounting for Decision Makers	48	48/0	100%	3.0
3	MGMT 5309	Data-Driven Decision Making	48	48/0	100%	3.0
4	MRKG 5401	Marketing Management	48	48/0	100%	3.0
5	ECON 5360	Global Economics for Managers	48	48/0	100%	3.0
6	MGMT 5346	Operations Management	48	48/0	100%	3.0
7	FINA 5394	Managerial Finance	48	48/0	100%	3.0
8	MGMT 5336	Managing Human Capital	48	48/0	100%	3.0
9	MGMT 5325	Strategic Management	48	48/0	100%	3.0
10	MGMT 5394	Ethical Leadership	48	48/0	100%	3.0
11	MGMT 5303	Applied Business Research & Statistics	48	48/0	100%	3.0
12	MGMT 5351	Capstone	48	48/0	100%	3.0
Total Hours and Credits – Master of Business Administration			**576**	**576/0**	**100%**	**36.0**

MBA COURSE DESCRIPTIONS

MGMT5301 Leadership 48/0/3.0
This course provides students with advanced concepts of leadership, and how the science of organizational behavior contributes to effective leaders and managers.

Upon completion of this course, students will be able to explain aspects of managing and leading organizations, explain the behaviors and traits of both effective managers and leaders, and identify relevant current issues in management and leadership. Students will also apply personal behaviors and tendencies that impact their leadership style and demonstrate an ability to motivate individuals and groups to achieve organizational goals.

ACCT5311 Accounting for Decision Makers 48/0/3.0
This course provides students with advanced accounting knowledge and skills to assess and manage a business. Topics include the accounting cycle, financial statements, taxes, and budgeting. This course will improve students' ability to understand reports and use accounting information to plan and make sound business decisions.

Upon completion of this course, students will be able to explain and analyze actual annual reports and managerial reports, create periodic public filing of financial statements by firms, other corporate disclosures, and analysts' reports, and explain the concepts that underlie the preparation of general-purpose cost reports. Students will also apply various management accounting techniques to analyze decisions faced by management and demonstrate an understanding of the role and preparation of budgets.

MGMT5309 Data-Driven Decision Making 48/0/3.0

This course presents critical problem-solving methodologies, including field research and data collection methods that enhance organizational performance. Topics include quantitative analysis, statistical and quality tools. Students will improve their ability to use data to make informed decisions.

Upon completion of this course, students will be able to explain and apply analytics literacy for modern managers and explain the principles of core and state-of-the-art analytics models, when to use each, and how to best communicate their impact on recommendations and decisions, and structure complex business problems to leverage analytics when reaching a sound decision. Students will be required to develop innovative frameworks for leveraging data and information to maximize the impact of analytics techniques on the quality of your decision-making and ultimately on their business, and explain available opportunities in processes, strategies, incentive systems, and marketplace tactics to improve efficiencies, redirect resources, or compete more effectively, and make the decisions to implement strategies designed to address those opportunities.

MRKG5401 Marketing Management 48/0/3.0

Management of the marketing function, market environmental analysis, and marketing planning, strategy, and control. The course examines the marketing process, marketing research, product development innovation and diffusion, pricing strategy, distribution value drain, advertising and promotion, and strategic marketing issues. Emphasis is placed on case study analysis and current academic research with a marketing plan as a significant curriculum component.

Upon completion of this course, students will be able to analyze the role of marketing within the firm and society and exercise analytical, communication, and presentation skills, demonstrate ability to comprehend the various aspects of a company's marketing strategy as well as the forces that influence such strategy. Students will also be required to demonstrate ability to create a detailed marketing plan and implementation schedule for a company and demonstrate that (a) they can communicate effectively among team members to develop a team-prepared written project and (b) they can make a persuasive, effective presentation of their project.

ECON5360 Global Economics for Managers 48/0/3.0

This course examines how economic tools, techniques, and indicators can be used for solving organizational problems related to competitiveness, productivity, and growth. Students will explore the management implications of a variety of economic concepts and effective strategies to make decisions within a global context.

Upon completion of this course, students will be able to develop a framework for analyzing both opportunities and risks in a global economic environment, evaluate techniques to learn about or increase demand and measure the tradeoffs and suitable applications of each approach, and model scenarios and analyze the impact of market changes by constructing supply and demand curves for individuals and markets. Students will be required to identify value creation and decompose its distribution to illustrate how trade occurs and examine the competitive landscape by differentiating long- and short-run market outcomes and forces.

MGMT5346 Operations Management 48/0/3.0

Operations Management examines managerial concepts and strategies relating to the management of operations in both manufacturing and service environments. Emphasis is placed on methods to streamline and drive in efficiencies

out of a firm's internal processes to build a highly efficient organization. The course also focuses on external processes by examining ways to achieve greater supply chain integration with suppliers and customers. Quantitative and qualitative methods and tools are introduced and applied.

Upon completion of this course, students will be able to explain production and operations and management function in any organization; identify various production and operations design decisions and how they relate to the overall strategies of organizations and explain the relationship of the various planning practices of capacity planning, aggregate planning, project planning and scheduling. Students will also be able to explain the roles of inventories and managing inventories in various demand settings

FINA5394 Managerial Finance 48/0/3.0

This course discusses advanced elements of business financial decisions, including financial forecasting and development of proformas, management of working capital, capital budgeting, capital structure, and raising funds in capital markets.

Upon completion of this course, students will be able to develop an understanding of the global aspects of business for managers, explain and calculate business financial decisions and forecasting for managers, and demonstrate competence in finance such as working capital, capital budgeting, capital structure, and raising funds in capital markets.

MGMT5336 Managing Human Capital 48/0/3.0

This course focuses on advanced strategies and tools that managers use to maximize employee contribution and create organizational excellence. The student will learn talent management strategies to motivate and develop employees as well as best practices to manage performance for added value.

Upon completion of this course, the students will critically construct reasoned arguments using skills appropriate to the context, such as deductive reasoning, scientific inquiry, quantitative reasoning, aesthetic judgment, or critical examination of form, style, content and meaning. They will explain a local and global context, with diverse human beliefs, abilities, experiences, identities, or cultures, acquire essential knowledge and skills to make well-reasoned judgments personally, professionally, within the business discipline of human resource management and people management in general. Lastly, they will define an organizational structure which drives productivity.

MGMT5325 Strategic Management 48/0/3.0

This course focuses definition, formulation, and execution of strategy within organizations. There is specific emphasis on the role of innovation and leadership in strategic management and an organization's ability to achieve and sustain competitive advantage.

Upon completion of this course, students will be able to analyze the main structural features of an industry and develop strategies that position the firm most favorably in relation to competition and influence industry structure to enhance industry attractiveness. Students will appraise the resources and capabilities of the firm in terms of their ability to confer sustainable competitive advantage and formulate strategies that leverage a firm's core competencies. Students will be able to explain the concept of competitive advantage and its sources and the ability to recognize it in real-world scenarios; analyze dynamics in competitive rivalry including competitive action and response, first-mover advantage, co-opetition and winner-take-all, and explain the advantages of vertical integration and outsourcing and the factors that determine the relative efficiency of each.

MGMT5394 Ethical Leadership 48/0/3.0

This course considers leadership dilemmas that can arise when the individual's values conflict with those of the organization, or when a situation requires decisions with conflicting value sets. Within this course, students use case

studies, their own experiences, and current events to examine actions leaders have taken and consequences faced when confronted with ethical dilemmas. From the exercises and discussions, students have an opportunity to develop a personal model for ethical leadership.

Upon completion of this course, students will be able to explain ethical thinking and problem solving through various philosophical and behavioral views. This is accomplished through observations on how individuals behave and think when facing ethical dilemmas, identify why ethics are vitally important in every society, and analyze leaders' choices and actions. Students will be required to analyze ethical issues in organizational leadership: external and internal pressures, and organizational choices and implement the leadership concepts in their decisions and projects through developing a personal model of ethical leadership.

MGMT5303 Applied Business Research & Statistics 48/0/3.0

This course prepares students to apply statistics and probability concepts to complex business decisions. Students learn important criterion for developing effective research questions, including the creation of appropriate sampling populations and instruments. Other topics include descriptive statistics, probability concepts, confidence intervals, sampling designs, data collection, and data analysis--including parametric and nonparametric tests of hypothesis and regression analysis.

Upon completion of this course, students will be able to explain the concepts of descriptive statistics and use sample statistics to make inferences about population characteristics, recognize different models of statistical processes such as hypothesis testing and linear and multiple regression, etc., and explain statistical processes and choose which process to use for data analysis applications. Students will learn to interpret statistical results as a basis for decision making and communicate your interpretation of the results of statistical analysis logically and persuasively in speaking and writing and collaborate effectively to use statistical analysis to address business challenges.

MGMT5351 Capstone 48/0/3.0

This course is the culminating assessment of the MBA curriculum and covers all previous assessment topics. Students will work on a case and develop a solution to a business problem. In addition, the student will work on a case to simulate running a business. One unique aspect of the simulation is that there are scheduled dates each week for simulation decisions.

Upon completion of this course, students will be able to demonstrate scholarship and professional competence through effective business-style oral and written communication; compare research collected about industry best practices and the company's current situation, organize, and interpret to create a plan of action. Students will be able to apply appropriate models from the MBA program while analyzing the project objectives to create organization-specific and meaningful observations and conclusions and apply critical thinking and problem-solving skills in the diagnosis and recommendation of solutions for the targeted organization problem or opportunity. Lastly, students will use integrated knowledge across business disciplines to define, analyze and solve business problem.

GENERAL EDUCATION COURSES

MATH COURSES

MATH 1312 ALGEBRA 48/0/3.0

Study relations and functions, including polynomial, rational, exponential, logarithmic, and special functions. Other topics include systems of equations and its applications. Upon completion of this course, be able to: use scientific notation; perform operations on and factor polynomials; graph, solve and apply linear and quadratic equations; solve systems of linear equations; and analyze functions.

MATH 1314 COLLEGE ALGEBRA AND TRIGONOMETRY 48/0/3.0

Study relations and functions, including polynomial, rational, exponential, logarithmic, and special functions. Other topics include systems of equations, trigonometric functions, and their applications. Upon completion of this course, be able to: use scientific notation; perform operations on and factor polynomials; graph, solve and apply linear and quadratic equations; solve systems of linear equations and analyze functions; graph and analyze trigonometric functions.

MATH 1324 MATHEMATICS FOR BUSINESS & SOCIAL SCIENCES 48/0/3.0

This course explores the rich concepts and applications for students in business, management, natural and social sciences. Students will learn to apply mathematics concepts involving linear equations, quadratic equations, functions and graphs, inequalities, simple and compound interest, annuities, matrices, and probabilities. Upon completion of this course, be able to: set up and solve systems of equations using matrix methods; solve linear applications using geometric and simplex methods; compute probabilities; analyze data using basic principles of statistics; and, solve financial applications involving simple and compound interest and annuities Prerequisites: MATH 1312 Algebra

MATH 1342 STATISTICS 48/0/3.0

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. Upon completion of this course, be able to: explain the use of data collection and statistics as tools to reach reasonable conclusions; recognize, examine and interpret the basic principles of describing and presenting data; examine, analyze and compare various sampling distributions for both discrete and continuous random variables, describe and compute confidence intervals, perform hypothesis testing using statistical methods. Prerequisites: MATH 1324 Mathematics for Business & Social Sciences

SCIENCE COURSES

BIOL 1301 BIOLOGY FOR NON-SCIENCE MAJORS 48/0/3.0

This introductory course is designed to provide students with a comprehensive understanding of the study of biological principles with an emphasis on humans, including the chemistry of life, cells, structure, function, and reproduction. Upon completion of this course, students will be able to describe the characteristics of human biology and the role of science in society; understand the basic principles of biology, including the characteristics of living organisms, the hierarchy of life, and the unity and diversity of life; explain the principles of genetics, including inheritance patterns, DNA structure, and gene expression; understand the scientific method and be able to design and conduct basic biological experiments; discuss the basic structure and function of prokaryotic and eukaryotic cells.

BIOL 1401 ANATOMY & PHYSIOLOGY I 45/30/4.0

Develop a critical understanding of anatomical terminology, anatomical structure, and function of the muscular, endocrine, cardiovascular, immune & lymphatic, digestive, respiratory, urinary, nervous, integumentary, reproduction and development systems. Upon completion of this course, be able to: identify and describe the

anatomical terms, directions, planes, axis and the cavities of the human body; describe basic organization of the human body and its structural levels; describe the atomic, molecular and cellular structure of human organs; identify the organs of each system, define function and describe their locations and relationship of its parts; describe human body homeostasis and normal lab values.

BIOL 2402 ANATOMY & PHYSIOLOGY II 45/30/4.0

Anatomy and physiology - II course is the second 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. 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. Upon completion of this course, be able to: identify and describe the anatomical terms, directions, planes, axis and the cavities of the human body; describe basic organization of the human body and its structural levels; describe the atomic, molecular and cellular structure of human organs; identify the organs of each system, define function and describe their locations and relationship of its parts; describe human body homeostasis and normal lab values.

BIOL 2421 MICROBIOLOGY 45/30/4.0

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. 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. Upon completion of this course, be able to: understand and explain microbiological processes in detail; appreciate the history, scope, and trends in microbiology; explain the principles and methods of diagnosing disease and epidemiology; and, conduct laboratory practices that include aseptic techniques and appropriate disposal or biological/biohazardous waste.

BIOL 1360 INTRODUCTION TO HUMAN NUTRITION 45/0/3.0

This course covers principles of Human Nutrition that provides an integrated overview of the physiological requirements and functions of protein, energy, and the major vitamins and minerals that are determinants of health and diseases in human populations. Upon completion of this course, be able to: describe how to properly design individualized eating plans; explain the nutritional differences of food and how it affects the body; describe the factors associated with weight control; describe how nutrition and lifestyle choices impact the life cycle before and during pregnancy, during lactation and infancy, during childhood and adolescence, and through adulthood and aging; and explain the impact of nutrition and lifestyle choices on the immune system and on diseases.

CHEM 1470 CHEMISTRY 45/30/4.0

This introductory to chemistry course covers an introduction to the basic concepts of chemistry such as systematic treatment of fundamental chemical and physical principles and their applications to the properties and transformations of materials, including the concept of energy and its uses, gas laws, kinetic molecular theory, laws of chemical combination, atomic and molecular structure, periodic classification of the elements, and chemical bonding. Upon completion of this course, be able to: describe fundamental chemical concepts and principles; solve a wide variety of integrative chemistry problems that connect ideas across topics; and, design, conduct, and analyze experiments pertaining to stoichiometry, thermochemistry, and spectrometry while developing fundamental safety, measurement, and sample isolation techniques.

PATHO 2330 HUMAN PATHOPHYSIOLOGY 45/0/3.0

This course provides an in-depth study of human pathological processes and their effects on homeostasis. Content builds on basic anatomy and physiology, microbiology, and chemistry content obtained from earlier courses. Course topics include the etiology, physical signs and symptoms, prognosis, and complications of commonly occurring diseases and their management. Upon completion of this course, be able to: utilize medical terminology as it applies to the pathophysiologic basis for alterations in health; demonstrate knowledge of the normal mechanisms of both the normal and altered human body; explain signs and symptoms of diseases and their relationship to specific pathophysiological changes in the human body; describe the relationships between basic pathophysiology and selected diagnostic and therapeutic modalities; and explain the basis for actions that could be taken to avoid pathophysiologic states or conditions or to reduce the risks of occurrence of pathophysiologic states or conditions.

PHYS 1401 COLLEGE PHYSICS I 32/64/4.0

The student will learn the science of matter and energy and the interactions between them through traditional fields dimensions; Newton's laws; energy; and basics of electricity and electromagnetism. Includes Lab. Upon completion of this course, be able to: Understand units and conversions; Explain one and two- dimensional motion; Apply the principles of Newton's Laws; Analyze equations of force, work, and energy and apply them; Evaluate simple electric circuits using Ohm's Law.

ENGLISH COURSES

ENGL 1301 COMPOSITION I 48/0/3.0

The student, focusing on the academic essay, will study the principles and techniques of expository and persuasive composition, including drafting, revising, and editing in paragraphs and essays and will produce a resume. Upon completion of this course, be able to: Use paragraphs as building blocks of essays; Explain the means of persuasion and strategies for evaluating evidence; Demonstrate technical writing skills and concise written communication; Distinguish among academic writing, writing for work, and informal writing; Write an expository and a persuasive essay.

ENGL 1302 RESEARCH ANALYSIS 48/0/3.0

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. Upon completion of this course, be able to: demonstrate knowledge of individual and collaborative research processes; develop ideas and synthesize primary and secondary sources within focused academic arguments, including one or more research-based essays; analyze, interpret, and evaluate a variety of texts for the ethical and logical uses of evidence; write in a style that clearly communicates meaning, builds credibility, and inspires belief or action; and apply the conventions of style manuals for specific academic disciplines (e.g., APA, CMS, MLA, etc.)

COMMUNICATION COURSES

SCOM 1315 FUNDAMENTALS OF HUMAN COMUNICATION 48/0/3.0

Study of human communication as a process. Overview of the principals of interpersonal, small group and presentation skills essential to effective social, business, and professional interaction. Emphasis on examining the role of self-concept, perception, culture, verbal, nonverbal, and written communication. Applying effective writing principles and strategies for understanding and presenting information for various purposes and audiences. Upon completion of this course, be able to: identify the components of communication and its barriers; analyze the audience and describe the criteria for choosing communication media; communicate ethically and avoid potential legal consequences of communication; and, plan, prepare, and deliver a presentation.

SPCH 1315 PUBLIC SPEAKING 48/0/3.0

This course develops the ability to speak before audiences. Students will plan and deliver several types of speeches appropriate to occasion and audience. Clarity of purpose and organization will be emphasized. Students will practice critical thinking and listening skills and be able to identify the means of persuasion. Upon completion of this course, students will be able to do the following: identify the basic elements of the speech process; design messages appropriate to topic, audience, and setting; make best use of strategies, verbal and non-verbal, to assure clear, accurate, and engaging communication; maximize use of language and body for conveying information and convincing argument; and analyze speeches critically for both content and delivery.

SOCIAL SCIENCE COURSES

PHIL 1301 INTRODUCTION TO PHILOSOPHY 48/0/3.0

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. Upon completion of this course, be able to: read, analyze, and critique philosophical texts; demonstrate knowledge of key concepts, major arguments, problems, and terminology in philosophy; present logically persuasive arguments both orally and in writing, demonstrate critical thinking skills in evaluation and application of philosophical concepts to various aspects of life, and evaluate the personal and social responsibilities of living in a diverse world.

PHIL2225 MEDICAL ETHICS & ISSUES 30/0/2.0

This course will explore the major ethical issues confronting the practices of medicine and biomedical science. We will become familiar with legal and institutional positions, consider and debate opposing arguments on the various topics, and examine relevant case studies.

POLS 3389 POLICY & POLITICS IN HEALTHCARE 45/0/3.0

This course provides an in-depth orientation to the actors, processes, and institutions that make up the political system in Texas, with a strong emphasis on the development of applied knowledge. Instructional material focuses on how politics in Texas shapes the operation of Texas political institutions, with attention to the interplay between public opinion, conflict among elites, and the policy environment in the state. Upon completion of this course, be able to: explain the history, goals, purpose, components, and dynamics of the health care system in the U.S.; discuss the connections and interconnections between the components of the health care system; and, use the facts and perspectives gained through this class to participate intelligently in decision-making about health care, both in the public sphere and for oneself.

PSYC 2301 GENERAL PSYCHOLOGY 48/0/3.0

Be introduced to the basic principles of psychology and apply those principles to a field of knowledge or activity. Upon completion of this course, be able to: explain the basic psychological concepts; appreciate the theorists' explanations of human behavior; describe the therapeutic approaches; identify psychological disorders, their causes and treatments; and, apply psychological principles to understanding and working with co-workers and clients.

PSYC 1380 LIFE SPAN HUMAN DEVELOPMENT 45/0/3.0

This course introduces the study of human growth and development. Emphasis is on the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span and apply this knowledge to their specific field of study. Upon completion of this course, be able to: demonstrate an understanding of the theories, methods and research findings of life-span psychology; describe how people change in terms of their cognitive, physical, social & emotional development; compare the major developmental theorists and discuss what each brings to or adds to the study of human development; think critically about each of the developmental theories and research demonstrated in written assignments; apply basic principles of developmental psychology to one's own life experiences.

SOCI 1358 **SOCIOLOGY** **45/0/3.0**

This course will focus on the basic concepts in Sociology and an analysis of culture, socialization, stratification, social organization, class, social interaction, social change, and conflict. Upon completion of this course, be able to: understand basic knowledge of sociological theory and concepts; apply knowledge of sociology to a range of issues and real-life contexts; explain key aspects of cultural capital and how it operates to perpetuate inequality and apply cultural capital and symbolic boundaries to the workings of major social institutions.

Effective June 5, 2023, the following general education courses will be offered 100% online: GEOL1301, ENGL 1301, ENGL 1302, SCOM 1315, SPCH 1315, HIST 1301, HIST 1302, PHIL 1301 and PSYC2301. The remaining courses will remain hybrid.

POLICIES AND STANDARDS

Student Orientation

Prior to beginning classes, all new students participate in an orientation program. Orientation delivery may be online or on ground, depending on the program. This is discussed at the time of enrollment. Orientation facilitates a successful transition into WTC; therefore, attendance for new students is imperative regardless of prior college experience. At orientation, students are acquainted with their peers, campus, administrative staff, and faculty. Administrative departments explain ways in which they assist students and clarify students' rights and responsibilities.

Attendance Policies

To better prepare students for employment, by developing good habits, it is essential that absenteeism and tardiness be kept to an absolute minimum. WTC strives to enforce attendance policies which require students to attend class regularly and punctually. All absences and tardiness are recorded regardless of the reason.

The College will evaluate each student's attendance at the end of each term. In cases of excessive absenteeism or tardiness, the College may take disciplinary action prior to the end of the term, however, students will be afforded reasonable opportunities in which to bring his/her overall attendance to the minimum benchmark of 85% within the term. Students who miss more than 15% of their scheduled classes after the first term will be placed on attendance probation for the following term.

A student missing over 15% of the scheduled class days during the probationary period may be terminated from the College. Student is at risk of being terminated when his/her absences exceed 15% of the total cumulative hours in the program. Authorized Leaves of Absence (LOA) will not be included in the attendance percentage of a term.

As mandated by the Texas Workforce Commission, the school's regulating body, consecutive absences (without an approved leave of absence) cannot exceed then (10) consecutive days or more than 20% (25% for the Commercial Driver Training program) of the scheduled course for the program, whichever is less. For purposes of this policy, the College counts all weekdays (not Saturdays or Sundays) toward the ten-day maximum, regardless of whether the student has classes scheduled on a specific weekday. If the tenth day of absence occurs during a scheduled school break, on a school holiday, or on a day when the campus is closed due to a local emergency, a student returning on the next school day after the closure will be considered to have returned on the tenth day.

Students with absences in excess of the limits of this policy will be processed as a drop from the program. The Campus President may exercise an exception to this policy if the absences exceed 10 days due to extenuating circumstances.

Any student who is terminated for unsatisfactory attendance may not re-enter before the start of the next grading period and will only be readmitted if the factor(s) contributing to the poor attendance has been resolved to the College's satisfaction. A student who was terminated for violating the attendance policy and that is readmitted will be placed on attendance probation for at least one term.

Note: College holidays and scheduled annual breaks are not considered days of absence. However, the Veterans Administration regulations require that all scheduled school breaks be reported.

Make-up Work & Hours

At its discretion, the College may allow a student, who for reasons acceptable to the College, is experiencing non-repetitive, extreme attendance problems, to make up essential coursework previously missed due to absenteeism. It is the student's responsibility to contact his/her department program director and instructor to arrange for any make-

up work & hours. No more than 5% of the total program clock hours can be made up. If a student misses a significant number of hours in a course, the instructor may determine that it is in the best interest of the student to repeat the entire course.

Instructors are required to advise students of their current attendance as well as academic status in school and generate advising forms for any academic or attendance issues that occur. If make-up hours are required, the instructor and PD will ensure that all make-up hours are completed before the end of each term.

All make-up work & hours must be approved by the department director and must be completed within two weeks of the end of the grading period during which the absence occurred.

Tardy Policy

Students will be deducted time to the nearest quarter for coming in late to class and from breaks and for leaving early for the day. If a student arrives any time after 8:00 a.m., but before 8:15 a.m., they will be charged 15 minutes. If the student arrives after 8:15 but before 8:30 a.m., they will be charged for 30 minutes, and so on. The same applies when a student leaves class for any reason. Refer to your program syllabus for the program policy.

Students missing 30% of an entire course may be required to retake the course in its entirety. It is important to arrive to school on time, and not leave class early.

Leaves of Absence (LOA)

A leave of absence (LOA) is a temporary interruption in a student's program of study and should only be requested in case of emergencies and extenuating circumstances including but not limited to medical reasons, jury duty, military service, incarceration, or death of a family member.

1. To request an LOA, the student must submit a written request via hard copy, text message, or through email, to an Administrative Specialist or Student Services Coordinator. The written request should include the reason for the LOA and the amount of time needed. All LOA's must have prior approval by the student's Program Director and Campus President.
2. In the rare event the student is unable to submit a letter requesting the leave, the student must verbally communicate with his/her Program Director, Financial Aid Director or Campus President, and follow-up with electronic communication (text or email).
3. Leaves of absence shall be reasonable in duration, preferably not to exceed 30 calendar days. WTC highly discourages any requests for an additional leave of absence, however, WTC may grant only one (1) more additional LOA within a 12-month period, in the event that an unforeseen circumstance arises, such as medical reasons, military service, or jury duty. The LOA, together with any additional leaves of absence, must not exceed a total of 180 days in any 12-month period.
4. Students on a LOA remain in Active Status; therefore, they are still obligated to maintain payments due to WTC.
5. Students must return on or before the day they are required to from their Leave of Absence. Failure to do so will result in being dropped from the program.
6. For Active Military and Veterans, refer to the language located in the financial aid section for the veteran leave of absence policy.

Leaves of Absence For 200 Hour Program

The Campus President may grant a leave of absence after determining that good cause is shown. A student may have no more than two leaves of absence in a 12-month calendar period and may be on leave of absence no more than 30 calendar days during that 12-month calendar period. School attendance records will clearly define the dates of the student's leave of absence. A written statement of the reason(s) leave of absence was granted, signed by both the student and the Campus President indicating approval, will be placed in the student's permanent file. A student's

enrollment in the program will be terminated if the student fails to return as scheduled from an approved leave of absence.

Student Academic Progress (SAP)

Below is a list of symbols used by the College to document attendance for students. Attendance is recorded by the instructor and posted daily:

P	Present
A	Absent
P#	Present Number of hours (Ex: P3)
M	Make Up Hours
I	Incomplete
W	Withdrawn
WF	Withdrawn Failed

Academic Grading Scale

Numeric Scale		Letter
98 – 100	4.0	A+
94 – 97.9	4.0	A
90 – 93.9	4.0	A-
88 – 89.9	3.75	B+
84 – 87.9	3.5	B
80 – 83.9	3.0	B-
78 – 79.9	2.75	C+
74 – 77.9	2.5	C
70 – 73.9	2.0	C-
68 – 69.9	1.75	D+
64 – 67.9	1.5	D
60 – 63.9	1.0	D-
BELOW 60 0.0 F		

BSN Program Academic Grading Scale

Numeric Scale		Letter
98 -100	4.0	A+
94 - 97.9	4.0	A
90 - 93.9	4.0	A-
84 – 89.9	3.5	B+
74.5 – 83.9	3.0	B
Below 74.5	0	F

Satisfactory Progress

Upon completion of each course, all students will be able to access their progress report through the student portal. Students must achieve and maintain a CUMULATIVE grade point average (GPA) of 2.0 in all courses, and all course work must be satisfactorily completed to be eligible for graduation.

For BSN, students must achieve and maintain a CUMULATIVE grade point average of 3.0. For PTA students must achieve and maintain a minimum cumulative GPA and minimum course grade of 2.75 (or a 78% numeric grade) in all core courses. Also, each individual written examination and practical examination must be completed at a level of 74% or greater.

The minimum requirement for a 200-hour program is:

A cumulative grade average of at least 70% is required for the student to receive the course certificate. Students will receive written notification of their progress at the midpoint and end of each two-week evaluation period. A student who is not making satisfactory progress at the midpoint will be placed on academic probation for the remainder of the progress evaluation period. The school's Administrative Specialist will advise the student placed on probation prior to the student returning to class. The date, action taken, and terms of probation will be clearly indicated in the

student's permanent file. If the student does not achieve satisfactory progress by the end of the probationary period, the student's enrollment will be terminated.

Unsatisfactory Progress

For the Commercial Driver Training program, which is a 200-hour program, the school shall record a student's grades at the midpoint and end of each progress evaluation period. A student not making satisfactory progress at the midpoint shall be placed on academic probation for the remainder of the progress evaluation period. If the student does not achieve satisfactory progress by the end of the probationary period, the student's enrollment shall be terminated.

The policies and procedures that pertain to a student's unsatisfactory progress are divided into three categories. Note that the use of the word "term" varies with each of the program policies shown below.

Category 1

The first category consists of five certification programs: MBC; MCA; Welding; Diesel Advanced Technology Education (DATE); and FCA Mopar Automotive.
For students in these programs, the word "term" refers to "a course."
The school will place on academic probation a student making unsatisfactory progress at the end of a term, and the probationary period will last through the next term. A student must have a cumulative GPA of 1.5 or higher to be considered for probation.
If the student achieves satisfactory progress during the first probationary term but does not earn the required grades to meet overall satisfactory progress for the program, the student may be allowed to continue on academic probation for another term.
A student on academic probation who fails to achieve a cumulative GPA of 1.75 by the end of the second probationary term will be dropped.
In all cases, the expectation is that a student's cumulative GPA will rise to at least 2.0.
A student who earns a failing grade at the end of the first term (course) should be dropped. If a student's attendance percentage falls below 85, they should be dropped. There are no consecutive probationary periods for attendance make-up.

Catagory 2

The second category of programs includes those that schedule by modules, and for the purpose of this policy, the word "term" refers to a "module." These are the programs affected: AOS programs and BBA.
The school will place on academic probation a student making unsatisfactory progress at the end of a term, and the probationary period will last through the next term. A student must have a cumulative GPA of 1.5 or higher to be considered for probation.
If the student achieves satisfactory progress during the first probationary term but does not earn the required grades to meet overall satisfactory progress for the program, the student may be allowed to continue academic probation for another term.
A student on academic probation who fails to achieve a cumulative GPA of 1.75 by the end of the second probationary term will be dropped.
A student who fails a course but has a GPA of at least 2.0 will be given an advising form rather than being placed on probation. The student will be required to repeat the failed course and will be charged for tuition at the current per hour rate.
Because course work continues, a student whose attendance is problematic must be sure to complete any make-up hours during the term in which their attendance is flagged. The object here is for the student to meet the 85% attendance requirement. Should a student fall below the 85% requirement but has no failing grade, they will be given an advising form rather than being placed on probation.

Students who fall below minimum academic and attendance requirements will have the length of a term to coordinate with their instructor to bring their grades and attendance up to minimum standards. If the student then fails to meet minimum standards, they will be dropped.

Probation

Students falling below minimum attendance and academic requirements, will have the length of the term to coordinate with their instructor to improve their grades and attendance to meet the minimum standards. Students that fail to meet the minimum requirements will be placed on attendance and/or academic probation. If students still do not meet the minimum requirements after their probationary period ends, they will be dropped from their program.

Course Retakes

Effective June 16, 2022, students that are required to repeat a course(s) due to having earned an "F" or a "WF," will be required to adhere to the following Course Retake Policy:

1. Retakes are not part of the original cost for the program therefore, all retakes are required to be paid for by the student. Arrangements for payment need to be made through the Financial Aid Office. In the event Financial Aid determines that student is not eligible for additional funding, the student must make payment arrangements with the Student Accounts Department. The representative will discuss different payment options at that time, and the arrangement will need to be made before the student is allowed back in school.
2. All retakes require mandatory tutoring. The amount of tutoring will be decided by the program director.
3. The maximum number of allowable course retakes for any program, apart from BSN, is three (3). Students in the BSN program are allowed a maximum of two (2) course retakes. If student has course retakes, and needs another, the student may be dropped from the program, regardless of the CGPA.
4. Failure to pass any course retake will result in the student being dropped from the program of Study.

It is the student's responsibility to ensure that he/she remains in good standing with the program of study. Tutoring services are available for students in all discipline. Please speak with the instructor, Program Director, or Student Services Representative to arrange tutoring services.

Drop/Withdrawal

If a student should elect to withdraw from his/her program for any reason before the completion of his/her training, the student is required to inform WTC in writing. Email notification is acceptable.

Official Withdrawal

The student is considered withdrawn based on notification to the Program Director or Registrar Office from the student, preferably in writing, of the student's intention to withdraw.

Unofficial withdrawal

Enrollment may be terminated after 14 consecutive calendar days of nonattendance and with no contact from the student.

How does this affect you?

Upon withdrawing or being dropped from a program, any scholarship or exemption credit(s) not earned for courses not taken, may be charged back to the student. Any credits to the student's account will follow the Return to Title IV policy, located in the Student Financial Services section and any unused VA benefits will be returned to the VA.

Withdrawn (W) and Withdrawn and Failed (WF)

Students who withdraw from a course before completing 75% of their course, will earn a "W" for Withdrawn. Students who withdraw from a course after completing a minimum of 75% will earn a "WF" for Withdrawn and Failed. This will appear on the student's transcript. Once the TWC refund calculation is complete, a student may have a balance with the school.

For more detailed information, refer to the WT Consumer Guide.

Termination Process

A student may initiate the termination process by submitting a written statement explaining the reason for leaving and provide documentation.

If a student is a veteran, they must provide the school with military orders; a student with a medical condition that renders them unfit must provide a doctor's notice; for any other circumstance the student must make arrangements to communicate with the school.

When the school initiates the termination, the process is as follows:

- If the student is in school, they must go to the Registrar office and sign an advising form.
- If the student is not in school, notification of termination goes out in the form of telephone calls, text messages, and emails.
- Students who fail to respond shall be sent a notice of termination via certified mail.

The system is satisfied that notifications are received by archiving students' text, email, and telephone responses. In all cases, terminations must be approved by the Campus President and documentation is placed in the school's student information system.

Readmittance

Students who have dropped from the college may request readmittance after sitting out one term. For consideration, the student is required to submit a letter to the Campus President, specifically explaining the following:

- What variables prevented them from completing their program.
- What has been done to correct the issue(s).
- What can the college expect from the individual if allowed to return

Upon receiving the letter and if accepted to return, the restart process is initiated. If the student had a balance owed to the school when he/she dropped, the balance must be paid, or acceptable arrangements made with Student Accounts.

Effective February 01, 2019, any student from the program that drops from school and decides to return will be charged at the current rate of attending.

Re-Enrollment of Terminated Students

A student whose enrollment was terminated for unsatisfactory progress may reenroll after a minimum of one progress evaluation period. Such reenrollment does not circumvent the approved refund policy. A student who returns after termination of enrollment for unsatisfactory progress will be placed on academic probation for the next grading

period and the student will be advised of this action, and it will be documented in the student's file. If the student does not demonstrate satisfactory progress at the end of this probationary period, the student's enrollment will be terminated.

SUPPORT SERVICES

WTC is committed to serving students, even if the representative assisting the student is not on the premises. Employees may be working offsite. Students are encouraged to contact employees they need to speak with by email, by phone or text message. Students may also ask for assistance by speaking to the receptionist and requesting to speak with someone in the department. The Receptionist will direct the student to the appropriate department.

Student Services

The purpose of the Student Services is to aid students that may be experiencing difficult life situations while enrolled at WTC. Available resources to students include:

- Federal Work Study Job Opportunities
- Transportation
- Off Campus Housing Information
- Resource Directory

The school's program that provides student services includes student retention strategies, academic support, and attention to students' health, safety, and well-being.

An internal network of comprising teachers, administrators, and clerical support attend to student retention. The process includes these interventions:

- A clerk is assigned to monitor student attendance. They work with information provided by teachers and what is reported in the student information system.
- Records on student attendance are complied, published, and reviewed daily.
- The Student Service Coordinator and her immediate supervisor, the Campus President, work with referrals from the attendance reports and from teachers. The coordinator's role includes but is not limited to housing, transportation, childcare needs, personal planning, and employment assistance. The Campus President has a broad discretion and information that can lead to in-house employment.
- When advisable, the Program Directors get involved in problem-solving that could lead to additional resources in support of students.
- All parties to the process engage in follow-up activities so the no student gets lost and goes unserved.

Counseling Services

Western Tech does not offer on-campus counseling services; however, a resource directory is available for students seeking professional counseling and/or health, financial, legal, and other services. A copy of the directory is available in the Student Services office. In addition, through a special arrangement with a provider, short-term mental health counseling services (six sessions) are free to students. This is a prepaid benefit provided to students by Western Tech.

IT Services

Students that are issued laptops or Chrome Books for their training can access WTC's onsite and online IT services department. For technical issues, students can bring in their laptops to be examined by an IT Technician. In the event the laptop or chrome book needs to be sent back to the manufacturer over a technical issue, the student may be issued a loaner device until such time the laptop or chrome book is returned to them.

Note: Students who break or lose their device are responsible for its replacement. The student must contact his/her Program Director for further guidance on this issue.

Financial Services Including Financial Aid

All tuition is due and payable by the program start date, unless satisfactory arrangements have been made with the school as evidenced by a Retail Installment Contract and/ or approval of Federal Student Aid. The Student Financial Services Department assists students in planning details of how to pay their educational costs. Each student is confidentially interviewed, his or her situation is considered, and the student is advised on possible payment arrangements. Financial Aid is available for those who qualify. The Financial Services Department is available to assist students with the Federal Student Aid application process. WTC participates in the Subsidized Direct Stafford Loan, Unsubsidized Direct Stafford Loan, Direct PLUS Loan, Federal PELL Grant, the Federal Supplemental Educational Opportunity Grant (SEOG) Program, and the Federal Work Study (FWS) Program.

Learning Resource Center

The Learning Resource Center (LRC) is available to both current students and graduates of WTC. The LRC provides instruction, services, and materials to help enhance academic growth and personal enrichment to help support the college's mission. The center provides a range of services for faculty as well as for students and alumni including but not limited to the following:

- Book borrowing and searching capabilities
- Online catalog
- Online databases

The LRC hours of operation are posted in the library and on WTC's website (www.westerntech.edu).

Tutoring

Tutoring services are offered for students having trouble with their studies or wanting additional academic assistance. Students on academic probation should attend tutoring sessions. This tutoring is offered as a free service for the benefit of students.

Advising

Academic, attendance, career, professional development, and continuing education advising are provided by faculty, Program Directors, Administrative Specialists, Deans, Student Services Coordinators, and Campus Presidents. Advising services are provided on an individual or small group basis to help students deal with concerns or problems so that he/she may maximize his/her college experience.

WTC does not offer counseling services. However, a resource directory is available for students seeking professional counseling, health, financial, legal, and other services. Copies of the directory are located throughout the campus and are available upon request.

Testing Center

WTC offers testing facilities for our students and the community alike. We are authorized to provide certification and professional licensure examinations through GED and Pearson Vue testing partners. Main hours of operation are from 8:00 am until 5:00 pm, Monday through Thursday, and 8:00 am through 12:30 pm on Fridays. For more information, please contact a test administrator at 1-800-225-5984.

CAREER SERVICES

Employment Assistance

The Career Services team places great importance on assisting current students and graduates in starting their new careers. The group is here to support students in developing and achieving their career goals. Services include internship and job placement accompanied by employment preparation that includes assistance with resume and cover letter writing. The Career Services team also offers students connections with employers in their fields of

study. These connections occur through one-on-one preparation for interviews, on-campus events, and internship programs.

Career Services On-Campus Hosted Events

- Job and career fairs
- Preparation for interviews with employers
- Networking with employers
- Reverse job fairs

Internship Requirements

Students should complete all program requirements before going on Internship. On rare occasions, students may need to go out on Internship before they are able to take a needed course that is unavailable. Students will not be allowed to go to Internship until they have completed the Career Services Information Form. The clearance process will occur a minimum of 45 days before the scheduled internship.

For evening students, every effort will be made to schedule internship experiences to coincide with their school schedule, most internship experiences occur during regular daytime hours from 8:00 a. m.–5:00 p.m. As a result, students may be required to attend a different school schedule to complete their internship experience.

During the internship, students may be required to work up to eight (8) hours per day and will need to adjust their schedules accordingly. Any exceptions must be approved by the Internship Coordinator and the employer.

Each student will be placed at an approved business location related to their field of study. As a rule, internships are unpaid. The Internship Coordinator will supervise each student's progress. Supervision will consist of reviewing weekly student evaluations provided by the internship site manager and periodic internship site visits. During these reviews, any deficiencies indicated on the Weekly Evaluation Report will be addressed with the student. Students will work with the Internship Coordinator to design an individual study program to address and correct the areas that may need improvement.

Clinical and internship sites may require drug testing and or background checks before a student's scheduled internship/clinical experience. The cost(s) of testing is the responsibility of the student, and they may be required to make payments in full directly to WTC.

The student must complete all program requirements before they will be allowed to graduate.

Employer Expectations

WTC strives to ensure that every graduate is given every opportunity to interview for and secure a job in their field of study. Learning what employers expect is crucial to becoming gainfully employed. Requirements vary from business to business, and many will require one or more of the items listed below:

1. Clean driving record
2. Current driver's license
3. Criminal background check
4. Drug testing
5. Credit checks

Graduate Employment Severance

Employment assistance is an ongoing service available to all graduates in good standing. To ensure the integrity of the program as well as the employment opportunities of future graduates, a graduate not in good standing may forfeit

their graduate employment assistance privilege under the following conditions:

1. Refused to take any employer-required testing
2. Defaulted on a student loan
3. Engaged in misconduct such as stealing, substance abuse, sexual harassment, and so on
4. Engaged in acts of dishonesty, fraud, or sabotage
5. Arrested for or indicted on criminal charges or engaging in any behavior that WTC determines may damage the reputation of the college
6. Violated any of the items listed under Employer Expectations

Students are encouraged to be truthful and honest about their backgrounds. In the event a background check reveals a misdemeanor or felony conviction that the student did not disclose to WTC before the check was administered, WTC reserves the right to take action against the student to include, but not be limited to suspension or termination from the program. This depends upon the severity of the infraction, and the action will be determined by the Program Director, Academic Dean, Distance Education Administrator, and Campus President.

STUDENT CODE OF CONDUCT

Any violation of WTC policies & standards, including safety violations, abusive language, drinking or illegal use of drugs (on or off campus) may result in suspension or termination. Improper conduct off campus may also result in suspension or termination. Students are required to follow college policies and standards while attending WTC. It is the student's responsibility to conduct themselves in a proper and respectable manner while attending the College.

Any student who fails to comply with the conduct standards, may be subject to verbal or written reprimand, probation, suspension, or termination from WTC, depending on the nature of the infraction. Readmittance following such termination is at the discretion of the college and relative to the nature and severity of the conduct violation.

The following constitutes a common list of conduct violations. It does not encompass every scenario. Students should immediately report any conduct violations to their instructor or other school official.

1. A student must not in any way interfere with class instruction and learning and must obey directives of WTC faculty and administration.
2. Under no circumstance is any type of food or drink allowed in the classroom. Eating and drinking is allowed in designated break areas. Water will be allowed; however, it must be in a closed container.
3. Use of cellular phones is prohibited in the library, classrooms, labs, and shop areas.
4. The library and Internet are available only for purposes of school projects. Viewing of illicit or inappropriate material or downloading any software is forbidden.
5. Students are always expected to conduct themselves in an orderly manner. Profanity, vulgarity, loud talking, inappropriate discussion or public displays of affection which may cause embarrassment to WTC or to fellow students, is prohibited and not tolerated.
6. Smoking, the use of E-Cigarettes, Vapors, or any other tobacco products (i.e. chewing tobacco, snuff, etc.) is not allowed in the buildings. Smoking, using E-Cigarettes or vapors, or chewing tobacco is allowed in designated areas, outside break areas only, and not in front of the building.
7. No loitering in front or at entrance of the buildings or in parking areas is allowed.
8. For safety purposes, sport activities are not allowed on college property.
9. Students are expected to participate in the classroom and lab activities. They must put forth a reasonable effort to learn. "Loafing," sleeping in class, sitting on work/lab benches, horse playing, and not carrying out instructions are considered types of unsatisfactory conduct.
10. Fighting and gambling on college property are absolutely forbidden.

11. Spouses, children, family members, or friends are not allowed into the classroom unless authorized. Students will be asked to leave with the accompanying member and will be docked for attendance.
12. The unlawful manufacture, distribution, dispensing, possession, use of a controlled substance or alcohol, or the presence of such in your body's system is prohibited on this institution's premises. These "premises" are defined as all school property including building interiors and exteriors, sidewalks, parking lots, privately owned vehicles parked on college premises, as well as desks, lockers, and storage areas. This prohibition applies to students performing any college related tasks, attending school-sponsored functions, including field trips, and internships regardless of location, on or off college premises. Students are expected to comply with all requirements of the Drug Free Schools Act.
13. Possession of a handgun under the authority of the Texas concealed handgun license law is prohibited on college premises. Ammunition, long blade knives (blades over 3" long), and any other type of object that may be construed as a weapon are a violation of college rules and are not permitted. Students possessing weapons are subject to dismissal. Fake or toy guns are also not to be on college premises.
14. Stealing and vandalism are prohibited. Students who commit such violations are subject to automatic dismissal and may be reported to local law enforcement.
15. Any student who willfully damages college property, property belonging to another student, or removes a part(s) from training aids without instructor approval is responsible and liable for repair or replacement costs and is subject to dismissal from WTC.
16. Each student is expected to do his/her own work. Presenting work done by others, using dishonest means in taking tests, and aiding in cheating is forbidden and subject to suspension or termination from WTC.
17. Safety is everyone's responsibility. Students may be exposed to many potentially dangerous situations, and it is very important that the classroom/lab/shop work areas be kept safe. All WTC students are responsible to help keep the school classroom/lab/shop areas clean, dry, and orderly.
18. It is forbidden for students and WTC employees to fraternize, (socializing, dining, drinking, etc.)
19. It is mandatory for all students to have the appropriate tools at school daily.
20. Students are prohibited from downloading items on the college's computers or personal anywhere in the college, unless authorized by the IT Department of WTC.
21. Under no circumstance are students allowed or permitted to sell any items (food, beverages, school material, etc.) for personal gain on school property.
22. Solicitation by a student for any cause or organization is prohibited. The distribution of advertising materials, handbills, or any other literature on WTC property or via any electronic form of communication by students is prohibited.
23. All students are expected to keep the college environment free from intimidation and harassment regardless of sex, race, age, religion, national origin, and disability or any other protected status.
24. WTC is a community of trust whose very existence depends on adherence to standards of conduct. This includes cases involving sexual misconduct and/or sexual assault or attempted sexual assault. Student conduct that violates these standards is handled by the Title IX Coordinator. Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature when:
    - Submission to such conduct is made either explicitly or implicitly as a term or condition of an individual's enrollment.
    - Submission to or rejection of such conduct by an individual is used as the basis for enrollment decisions affecting such individuals
    - Such conduct has the purpose or effect of unreasonably interfering with an individual's school performance or creating an intimidating, hostile, or offensive environment.

      WTC may report violators to the appropriate authority for civil or criminal action. WTC prohibits retaliation of any kind against students who, in good faith, bring sexual harassment complaints or assist in investigating complaints. Exercising rights under this policy does not in any way affect a student's right to seek relief through the Texas Commission on Human Rights, the Equal Employment Opportunity

Commission, or in a court of proper jurisdiction for any complaint for which a remedy is provided under state or federal law. It is the responsibility of each student to be aware of the details of the foregoing policy.

Dress Code

All students are required to wear specified uniforms each day. Variations of the dress code may occur for your program under the direction of the Program Director and/or instructors. The WTC student dress code is as follows: All students must wear their student-issued uniforms while they attend school.

1. All students must wear closed-toe shoes with socks. All welding students must wear leather boots.
2. Where applicable, personal protective equipment must be worn as directed by each department.
3. Shorts, tank tops, sweatpants or other clothing or headwear considered inappropriate by the school may not be worn at school.
4. Excessively long hair and beards may create a safety hazard and must be tied or braided during shop/laboratory.
5. Sunglasses are not to be worn anywhere inside the building.

NOTE: Program Directors and Instructors have the authority not to allow baseball caps or other headgear to be worn in the classroom.

Academic Integrity

In addition to relying on expert teachers to detect and prevent cheating and plagiarism, Western Tech utilizes technology such as Lockdown Browser and Turnitin. The published code of conduct includes this wording: Each student is expected to do their own work. Presenting work done by others, using dishonest means in taking tests, and aiding in cheating is forbidden and make a student subject to suspension and termination. Any student who fails to comply with the conduct standards may be subject to oral or written reprimand, probation, suspension, or termination depending on the nature of the infraction. Readmittance following such termination is at the discretion of the college and relative to the nature and severity of the conduct violation.

Suspension

A student may be suspended due to a violation of any WTC policies or standards. Final determinations on suspensions are determined by the Campus President and Program Director. There is a maximum time frame of three (3) days per suspension.

Grounds for Suspension or Termination of the Student by Western Tech

The student is responsible for adhering to all policies and procedures of Western Tech. The student understands that Western Tech has the right to suspend or terminate any student who Western Tech determines, at its sole discretion, has failed to satisfy the academic or behavioral standards articulated in the student code of conduct. including with regard to attendance, or to act in accordance with the laws of Federal, State, or local government, or any policy or procedure of Western Tech, or otherwise has acted in a manner detrimental to the classroom environment, the well-being of fellow students, faculty, or staff, or institutional facilities, or who fails to pay any outstanding balance owed Western Tech under this agreement.

Appeals

A student has the right to appeal depending on the nature and severity of the situation, as noted in the Student Code of Conduct. A student who files an appeal will be required to do the following:

- Submit a letter to the attention of the Campus President, detailing the issues that surrounded the dismissal.
- Request an appeal of the decision rendered, with reasons stating why WTC should reconsider.
- The letter can be mailed or presented in person and MUST be signed by the student.
- Letters must be sent within 10 days from the day of dismissal to be considered.

Student will be notified within 48 hours by the Campus President who will determine if the violation merits further action or not.

Student Complaint/Grievance Procedure

If a student feels that he or she has an issue or grievance which needs to be addressed, the student is encouraged to address the issue with his/her instructor or program director. If the complaint cannot be adequately resolved there, the student must then address it, preferably in writing, to the Campus President, so that the issue(s) is addressed completely. If not resolved at that level, then the complaint would then be addressed to the COO.

Student Complaint Procedure

Schools accredited by the Accrediting Commission of Career Schools and Colleges must have a procedure and operational plan for handling student complaints. If a student does not feel that the school has adequately addressed a complaint or concern, the student may consider contacting the Accrediting Commission. All complaints reviewed by the Commission must be in written form and should grant permission for the Commission to forward a copy of the complaint to the school for a response. This can be accomplished by filing the ACCSC Complaint Form. The complainant(s) will be kept informed as to the status of the complaint as well as the final resolution by the Commission. Please direct all inquiries to:

Accrediting Commission of Career Schools &Colleges
2101 Wilson Boulevard, Suite 302
Arlington, VA 22201
(703) 247-4212
www.accsc.org| complaints@accsc.org

A copy of the ACCSC Complaint Form is available at the school and may be obtained by contacting complaints@accsc.org or at https://www.accsc.org/Student-Corner/Complaints.aspx.

A copy of the Commission Complaint form is available at the College and may be obtained by contacting the Campus President.

The following is the Texas Workforce Commission Complaint Procedure:

Dear Students:
This school has a Certificate of Approval from the Texas Workforce Commission (TWC).
The TWC-assigned school number is: S0117 (Branch) and S0118 (Main).

The school's programs are approved by the following entities: TWC, Career Colleges & Schools of Texas, Texas Higher Education Coordinating Board, and the Accrediting Commission of Career Schools and Colleges. For the branch campus, the Commission on Accreditation in Physical Therapy Education (CAPTE) approves the Physical Therapist Assistant Program. The Nursing Program is approved by the Texas Board of Nursing.

Students must address their concerns about this school or any of its educational programs by following the grievance process outlined in the school's catalog. Schools are responsible for ensuring and documenting that all students have received a copy of the school's grievance procedures and for describing these procedures in the school's published catalog. If, as a student, you were not provided with this information, please inform school management.

Students dissatisfied with this school's response to their complaint or who are not able to file a complaint with the school, can file a formal complaint with TWC, as well as with other relevant agencies or accreditors, if applicable.

Information on filing a complaint with TWC can be found on TWC's Career Schools and Colleges Website at http://csc.twc.state.tx.us/.
If a student does not feel that the College has adequately addressed a grievance or concern, students may contact the state licensing in writing at:

The Texas Workforce Commission, Career Schools and Colleges Section,
101 East 15th St., Austin, TX 78778-0001

Contact information for filling student complaints with the Texas Higher Education Coordinating Board including:

How to submit a Student Complaint: After exhausting the institution's grievance/complaint process, current, former, and prospective students may initiate a complaint with THECB by sending the required forms either by electronic mail to StudentComplaints@thecb.state.tx.us, or by mail to the Texas Higher Education Coordinating Board, Office of General Counsel, P.O. Box 12788, Austin, Texas 78711-2788. Facsimile transmissions of the forms are not accepted.

The web address for the Texas Higher Education Coordinating Board's Student Complaints page with forms and a description of the complaint procedure: http://www.thecb.state.tx.us/links/student-complaints/ The THECB complaint form is: http://reportcenter.thecb.state.tx.us/agency-publication/blank-forms-templates/student-complaints- form/

Physical Therapist Assistant: Commission on Accreditation in Physical Therapy Education (CAPTE)

Standard WTC protocol will be followed regarding the grievance policy but with some variations that are specific to the Physical Therapist Assistant program. Those variations can be found on the WTC website, www.westerntech.edu.

Bachelor of Science in Nursing (BSN): Texas Board of Nursing

Standard Western Tech protocol will be followed regarding the grievance policy but with some variations that are specific to the BSN program. The web address for the Board of Nursing is http://www.bon.texas.gov. Select "Discipline & Complaints and select "How to File a Complaint". Those variations can be found in the individual program section of this catalog and on the Western Tech website, www.westerntech.edu.

Medical Clinical Assistant (MCA): Commission on Accreditation on Allied Health Education Programs (CAAHEP)

Standard Western Tech protocol will be followed regarding the grievance policy but with some variations that are specific to the MCA program. The web address for the Commission on Accreditation on Allied Health Education Programs is https://www.cognitoforms.com/CAAHEP2/FileAComplaint

TITLE IX AND SEX DISCRIMINATION

Title IX protects students, employees, applicants for admission and employment. Everyone is protected by Title IX—regardless of their race, color, religion, sex, national origin, age, disability, marital status, military or veteran status, sexual orientation, or gender identity.
The Title IX Coordinator's role is to coordinate the institution's efforts to review and appropriately respond to all complaints of sex discrimination and to work with other school employees and the campus community to prevent sex-based and gender-based harassment.

Who should report the incident?

- Students or employees who believe they may be a victim of sexual harassment or sexual violence.
- Students and employees who believe they may have witnessed sexual violence involving a student or employee.
- Students and employees should also report to the Title IX Coordinator any retaliation against them by any school employee for reporting a Title IX violation or for cooperating with or being involved in a Title IX disciplinary proceeding.

Reporting:

Any employee who is subjected to or witnesses a possible incident of sexual harassment or other unlawful harassment or discrimination or has witnessed or become aware of discrimination or harassment in violation of these policies, should promptly report the matter to one of the following: his/her supervisor, the Human Resources Director/Title IX Coordinator or next higher authority. If an employee feels it is not appropriate to report any issue or incident to his or her supervisor, the employee may contact any other member of management, including the COO or CEO of WTC.

The College will promptly investigate all allegations of discrimination and harassment, and act as appropriate based on the outcome of the investigation. An investigation and its results will be treated as confidential to the extent feasible. Employees who raise concerns and make reports in good faith can do so without fear of reprisal; at the same time, employees have an obligation to cooperate with the College enforcing this policy and investigating and remedying complaints.

Anyone found to have engaged in such wrongful behavior will be subject to appropriate discipline, which may include immediate termination of employment. The severity of any such discipline imposed is left to the sole discretion of the College.

Any employee who files a complaint of sexual harassment or other discrimination in good faith will not be adversely affected in terms and conditions of employment and will not be retaliated against because of the complaint.

In addition, we will not tolerate retaliation against any employee who, in good faith, cooperates in the investigation of a complaint. Anyone who engages in such retaliatory behavior will be subject to appropriate discipline, up to and including termination of employment.

However, if after investigating any complaint of harassment or unlawful discrimination, the College determines that the complainant or a witness has provided false information regarding the complaint, disciplinary action will be taken, up to and including discharge.

TIX policy can be found on www.westerntech.edu under About WT.

The Title IX Coordinator is the individual designated by the College to coordinate its efforts to comply with Title IX.

Questions or concerns about Title IX can be directed to:
Martha Molinar, Title IX Coordinator
Main Campus: 9624 Plaza Circle, El Paso, TX 79927
Branch Campus: 9451 Diana Drive, El Paso, TX 79924
Office: (915) 760-8164
Cell: (915) 497-2433
mmolinar@westerntech.edu

SAFETY & SECURITY

Our college has a commitment to ensure the safety and general welfare of those on our campuses, and to provide appropriate policies, procedures, and strategies to maintain a safe campus. Because of certain crimes, natural disasters, and other emergencies or crisis that may arise, we are convening committees and task forces to reexamine or conduct a comprehensive review of policies, procedures, and systems related to campus safety and security. As with many critical areas on the agendas of administrators, campus safety and security require building support and conducting a thorough and systematic process to produce a quality plan to prepare for and manage emergencies on campus.

We have procedures that will assist staff and students in dealing with any hazard or threat to that may arise while located on a Western Technical College Campus. It is designed to protect employees, students, the community, the environment, and property. It is recognized that unique situations may require variations in the described plan. This plan is intended to provide response protocols to be followed in the event of an emergency. The objective of this plan is to minimize the threat to employee and student safety during a crisis through familiarization of emergency response procedures.

INTERNSHIP/CLINICAL REQUIREMENTS

Students should complete all program requirements before going on internship, although there is occasion a student may need to go out on Internship before he/she is able to take a needed course due to availability. Students will not be allowed to go to Internship until they have been cleared through Career Services, Student Loan Advisors, Financial Aid, Student Accounts, and the Administrative Specialist. The clearance process through these departments will occur a minimum of 45 days before the scheduled internship.

While every effort will be made to schedule internship experiences for students in the evening program to coincide with their school schedule, most internship experiences occur during regular daytime hours from 8:00 am – 5:00 p.m. As a result, students may be required to attend a different schedule to successfully complete their internship experience.

During internship, students may be required to work up to eight (8) hours per day and will need to adjust their schedules accordingly. Any exceptions must be approved by the internship coordinator.

Each student will be placed into an approved business location related to his/her field of study. Normally, internships are unpaid. The internship coordinator will supervise each student's progress. Supervision will consist of reviewing weekly student evaluations provided by the intern site manager and regular intern site visits. During this review, any deficiencies indicated will be addressed with the student. Students will work with the internship program coordinator to establish an individual study program designed to address and correct the areas that may need improvement.

Clinical and internship sites may require drug testing and or background checks prior to the student's scheduled internship/clinical experience. The cost(s) of testing is the responsibility of the student, and they may be required to make payments in full directly to the college. Drug screens are $30.00, and background checks are $32.75 (Prices are subject to change).

For Physical Therapist Assistant students, in the event a student tests positive for illegal drugs, the student will be automatically suspended from his/her program of study for a period of no less than thirty (30) days. At the completion of thirty (30) days, the student will be required to re-take a drug test at their cost. If the drug screen returns negative, the internship coordinator or Academic Coordinator of Clinical Education (ACCE) will be allowed to work with the

student to place them at a site. If it returns positive, the student will be dropped from the program. Students will be provided with a resource directory and WTC will advise the student to seek counseling. If the student chooses to go through drug counseling, the student may re-apply for their respective program thirty (30) days after termination, given the student can provide proof of having successfully completed drug counseling.

Students from all disciplines are encouraged to be truthful and honest about their backgrounds. In the event the background check reveals any misdemeanor or felony convictions of which the student did not make WTC aware before the check was administered, WTC reserves the right to take action against the student, to include, but not limited to suspension or termination from the program. This depends upon the severity of the infraction, and will be determined by the program director, academic dean, dean of distance education and Campus President.The student must successfully complete the internship program before he/she will be allowed to graduate.

GENERAL INFORMATION

Curricula Revisions

The College reserves the right to vary the sequence of courses and revise and/or update curriculum content, textbooks and tool sets as needed, with or without notification.

Semester Credit Hours

All conversions for Semester Credit Hours defined by our state regulators, Texas Workforce Commission (TWC), and the Texas Higher Education Coordinating Board (THECB), use the Carnegie system for school credit; therefore "SCUs earned" is defined as the successful completion of fifteen (15) clock hours of theory instruction, thirty (30) clock hours of laboratory instruction, or forty-five (45) clock hours of internship. Each clock hour is at least fifty (50) minutes in length. At least one hour of study time is recommended for each hour of lecture.

The following Semester Credit Hours defined by WTC's accreditor, the Accrediting Commission of Career Schools and Colleges (ACCSC) is approved by the US Department of Education. ACCSC-approved SCHs are used for Title IV Financial Aid disbursement.
One semester credit hour equals 45 units (and one quarter credit hour equals 30 units) comprising the following academic activities:

- One clock hour in a didactic learning environment = 2 units
- One clock hour in a supervised laboratory setting of instruction = 1.5 units
- One hour of externship = 1 unit
- One hour of out-of-class work and/or preparation for the didactic learning environment or supervised laboratory setting of instruction that are designed to measure the student's achieved competency relative to the required subject matter objectives = 0.5 unit

SCUs in all programs fulfill the requirements from the state and accreditor.

Time Codes

The following time code is used on all courses in every program to illustrate the amount of time students will spend in class or lab per course and the subsequent number of credit hours awarded.

44/48/4.0- Theory hours per course / Lab hours per course / Semester Credit Hours

Student Insurance

WTC provides insurance coverage for injuries to students while attending class or school functions on WTC premises and during internship and group activities sponsored by the college. The policy does not cover students once they leave the campus or after they graduate. WTC also provides medical malpractice insurance for students in the

following programs: Medical Clinical Assistant, Medical Billing and Coding, Physical Therapist Assistant, and Nursing.

Change in Scheduled Operations

A change in scheduled operations including weather-related closing announcements, class cancelations, early dismissal, emergency evacuation, etc. will be made via:

- WTC text message alert system.
- On-site at both campuses via signage.
- Via the WTC email address provided to students, instructors, and staff.
- www.westerntech.edu – WTC homepage.
- via Canvas Learning Management System
- via local broadcast media.

Class Size

The number of students per class or per instructor varies depending on the course of study. Generally, lecture class limits the maximum number of students to 30 per instructor. The maximum ratio for lab/shop instruction is set at 20 students per instructor. Class size for Physical Therapist Assistant: A maximum of 24 students per class and a maximum of 12:1 student instructor ratio for laboratory. Class size for Nursing is a maximum of 30 students and a 10:1 student to instructor ratio for clinicals.

Official Communication Policy

Any official correspondence from WTC to students will be:

- In Writing: at the permanent postal mailing address, or via personal delivery within the school premises.
- Via Electronic Communication (Student Portal, Student Learning Management System, Emergency Alert System and/or Student Information System), email or text: at the WTC email address provided to all students.
- Students are responsible for reading and responding appropriately to any official correspondence upon receipt from WTC staff or faculty.

Graduation Requirements/Ceremonies

WTC confers certificates/degrees, including Certificate of Completion, Associate of Occupational Studies Degree, Associate of Applied Science Degree, bachelor's degrees, and a master's degree.

To graduate from WTC, all students must obtain a minimum of 2.0 cumulative GPA, meet attendance and other college requirements, and pass all required courses, including sitting for a mock interview with an employer and submitting an updated resume to Career Services. Students must achieve and maintain a minimum *cumulative* grade point average *and* a minimum course grade of 2.75 (or a 78% numeric grade) in all core courses, and all course work must be completed for a student to be eligible for graduation. Individual written and practical examinations must be completed at a level of 74% or greater.

Note: Specific program graduation requirements are found in each program description. Before going on their internship experience, where applicable, students are required to earn specific certifications found in each program description.

Awards

The following categories will be recognized at the ceremonies:

- Summa Cum Laude, one selected from each campus, (White sash): 4.0 GPA and 98%-100% attendance

- Magna Cum Laude (Gold Cord): 3.8- 4.0 GPA and 97% or higher Attendance
- GPA Recognition (Blue Cord): 3.8-4.0 GPA
- Attendance Recognition (Red Cord): 97% or higher attendance

After graduation, within approximately 4-6 weeks, students will be allowed to pick up their degrees/certificates of completion from the Administrative Specialist.

Transcript Requests

Unofficial transcripts are available electronically for print through the student's Campus Vue portal. Requests for official transcripts may be made by contacting the front desk staff at each campus. Graduates will be allowed to pick up their transcripts approximately 4-6 weeks after they graduate. There is a $5.00 charge for each transcript after the issuance of one upon graduation. All other requests for transcripts will take approximately 5-7 school days with a charge of $5.00. A graduate must be in good standing on their school account to be eligible to receive their transcript. To be in good standing, a graduate cannot have missed three consecutive payments to the school.

Refresher Training

To stay current with changing technological developments in their industries, graduates may return to WTC and retake any courses of the program from which they graduated according to the following conditions:

- Refresher training will be allowed only on a “space available” basis and requires the approval of both the Program Director and Campus President.

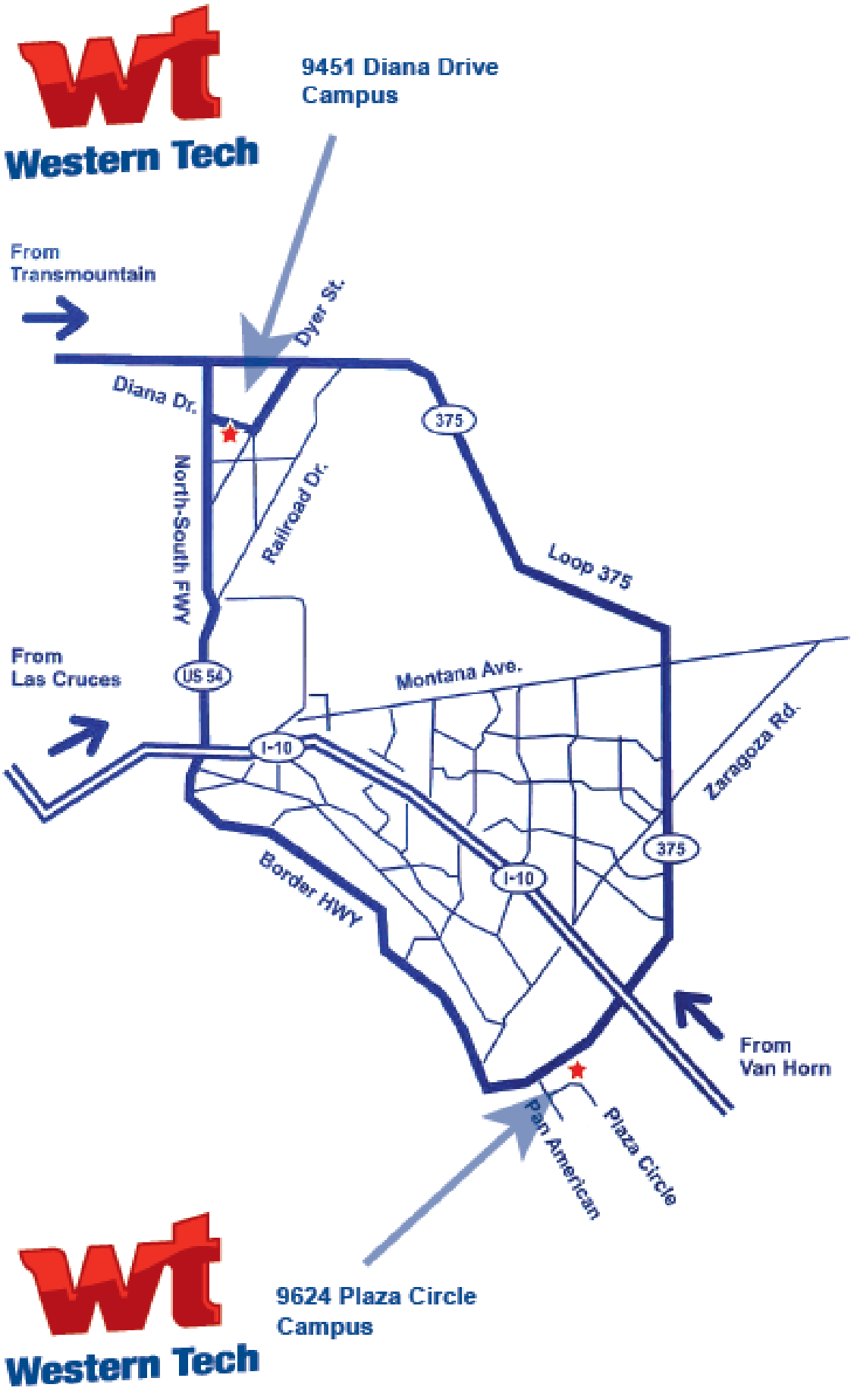
- Graduates may repeat up to three courses in the same program from which they graduated at no tuition charge. Any additional courses may be taken at a charge of 25% of the current tuition rate.

Educational or Operational Changes

WTC reserves the right to make changes, at its sole discretion, to any facet of its operations, including graduation requirements, costs, curriculum, course structure and content, faculty, methods of delivery, class schedule, and the calendar of operation, as needed. WTC expressly reserves the right to cancel or postpone any new start for any program due to insufficient enrollment. Reasonable notice of any such changes will be provided to the student. Any policy change to the catalog is updated, the latest version will be made available through WTC’s website or through the school’s admissions department.

Articulation Agreements

For graduates wishing to continue their education elsewhere, WTC has structured articulation agreements with the University of Phoenix, Western Governors University, and Grand Canyon University. WTC also has an articulation agreement with Chamberlain University for the BSN program and with Strayer University for the Automotive Technology Mopar program. For further information, graduates should contact these institutions regarding course exemptions and credits or speak with their Campus President.


Western Tech
9451 Diana Drive
Campus
From
Transmountain
Dyer St.
Diana Dr.
375
North-South FWY
Railroad Dr.
Loop 375
From
Las Cruces
US 54
Montana Ave.
I-10
Zaragoza Rd.
375
Border HWY
I-10
From
Van Horn
Plaza Circle
Pan American
Western Tech
9624 Plaza Circle
Campus


OUR MISSION
The mission of Western Technical College is to:
Provide quality training and education in a caring, professional environment that prepares new students and working adults with the skills they need to succeed and advance in their chosen careers.
Western Tech
westerntech.edu