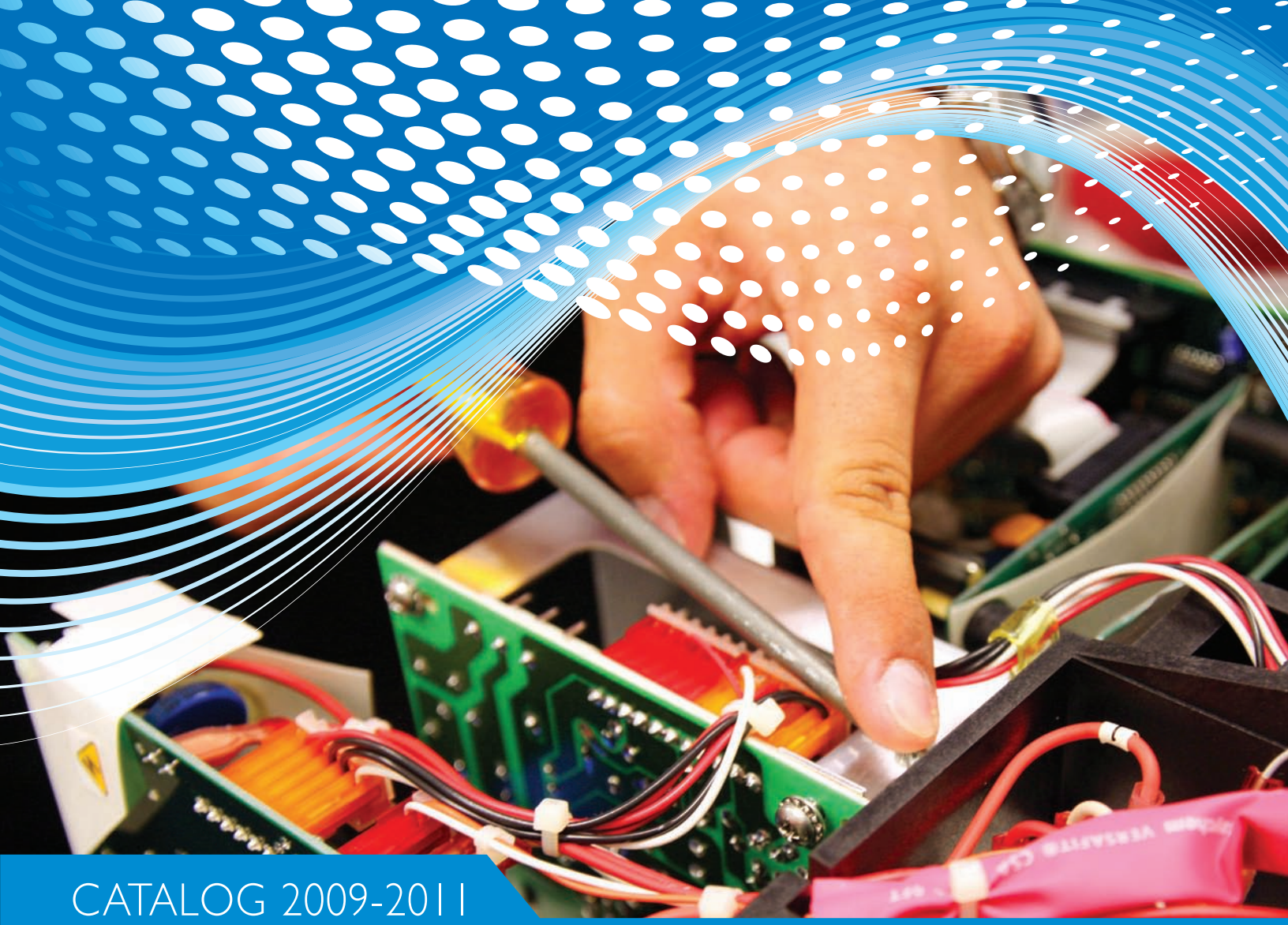


CATALOG 2009-2011

TSTC
Texas State Technical College™

Texas State Technical College Harlingen Technical Careers

Agricultural Technology
Chemical-Environmental Technology

Air Conditioning & Refrigeration Technology
Building Construction Technology

Computer Science Software Development
- Game & Simulation Programming
- Game Testing Technology

Digital Media Design Technology
Telecommunications Technology

Business/Office Technology

Education and Training

Culinary Arts
Dental Assistant
Dental Hygiene
Dental Laboratory Technology
Health Information Technology
Medical Information
Specialist/Transcriptionist
Medical Assistant
Nurse Assistant
Surgical Technology
Vocational Nursing

Business/Office Technology
Computer Drafting & Design Technology
- GIS/GPS Specialty

Computer Networking and Security Technology
Computer Science Software Development
- Game & Simulation Programming
- Game Testing Technology

Computer Systems Management Technology
Digital Media Design Technology
Telecommunications Technology

Machining Technology
Mechatronics Technology
Welding Technology

Biomedical Equipment Technology
Chemical-Environmental Technology
Computer Drafting & Design Technology
- GIS/GPS Specialty

Auto Collision Technology
- Auto Body Repair

Automotive Technology
- Ford Maintenance & Light Repair

Aviation Maintenance Technology
- Airframe
- Powerplant

Equal opportunity shall be afforded within the Texas State Technical College System (TSTC) to all employees and applicants for admission or employment regardless of race, color, gender, religion, national origin, age, or disability. TSTC complies with the Texas Equal Opportunity Plan.

TSTC will make reasonable accommodations for persons with disabilities. TSTC's policy is that, in all aspects of its operations, each person with a disability shall be considered for admission or access to or treatment or employment in its programs and activities in accordance with Part 84 of Title 45, the regulation implementing Section 504 of the Rehabilitation Act of 1973.

This publication is available in an alternative format by contacting TSTC Support Services at 956.364.4520.

Texas State Technical Colleges are accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award Associate of Applied Science degrees and Certificates of Completion. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097or call 404-679-4500 for questions about the accreditation. Students may review accreditation records in the TSTC Office of the President.

TSTC reserves the right to limit the enrollment of any program and to make any changes in the provisions of this catalog when such action is deemed to be in the best interest of the student or TSTC. TSTC reserves the right to change any of this catalog's provisions, without notice or obligation, in keeping with the policies of the Board of Regents and in conformance with the laws of the State of Texas. This catalog is not a legal document and does not constitute a contract between TSTC and the user. The catalog may also be found on TSTC's web site at www.tstc.edu. If you require this document in an alternative format, please contact the TSTC Support Services Office.

CATALOG 2009-2011

Texas State Technical College™

Institutional Purpose and Goals

Statement of Purpose

TSTC's purpose or mission is described in Vernon's Texas Education Code Section 135.01:

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

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

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

Expanded Statement of Purpose

Texas State Technical College Harlingen is an independently accredited institution offering affordable educational opportunities in a residential setting. The College promotes access to higher education through open admissions to the institution, as well as basic skills studies that equip students to succeed in college courses. Located in a culturally diverse area of the Rio Grande Valley of Texas, the College is certified as a Hispanic-Serving Institution.

Programs are designed to prepare students to meet the demands of an increasingly competitive and intellectually challenging future through educational and personal growth, practical skills development, general academic courses, and career preparation. Input from advisory committees composed of industry and workplace representatives assures relevance of curricula that prepare Associate of Applied Science degree and Certificate graduates for placement in their career fields. Successful preparation for independent and life-long learning is achieved through intensive teaching formats that stress hands-on laboratory experiences, productive work ethics, information technologies integrated with instructional delivery, advanced methods of electronic teaching and learning, cooperative education, and other student success initiatives. In addition, the College provides student services, such as career and guidance counseling, student activities, assistance with financial aid and job placement, workshops for job readiness, and events for cultural enrichment.

Accordingly, TSTC Harlingen's faculty are dedicated to quality teaching and dynamic classroom learning experiences that integrate theory with application. The staff complements these efforts with excellent support services to fulfill the college's mission. In all aspects, Texas State Technical College Harlingen is committed to providing the educational tools that enable students to improve their quality of life and achieve their potential.

Vision and Values

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

Excellence	Achieving the highest quality in all we do
Leadership	Developing visions and strategies for a desired future, and aligning and energizing people to achieve those visions
Innovation	Creating and implementing new ideas and methods
Collaboration	Working cooperatively with other organizations and within our own system.
Responsiveness	Providing appropriate programs and services in a proactive, flexible, and timely manner
Accountability	Measuring our performance and using the results for improvement
Stewardship	Ensuring our programs and services add value to our students and communities throughout the state, and operate in accordance with the public trust for which we are responsible

Table of Contents

Welcome to TSTC Harlingen

Texas State Technical College is committed to providing students the knowledge and skills that are the basis of a world class education. The technical programs offered at TSTC are known nation-wide as delivering the science and critical thinking required for successful careers.

Global connectivity eliminates isolation and influences our educational programs, our career choices and our economy. TSTC's partnership with industry, coupled with our faculty's experience, high academic standards and our staff's commitment to service form ties that bind; strengthening our delivery of world-class education. Together with our students, we possess an amazing potential to build upon the traditions of TSTC Harlingen to assure continued success. Our three technology divisions - Industrial and Manufacturing, Computer Information Systems, and Allied Health - place more than 90 percent of graduates in rewarding careers. As emerging technologies surface, our programs will adapt to not only stay current with applications, but to expand opportunities for our graduates and strengthen relationships with our business partners.

We are also strong in our Academic Core program with an ever increasing number of articulation agreements with four-year universities. Our academic programs are an integral part of the college success we bring to our students. This provides more choices for our students regarding life-long learning. Another important component of our resources are the talent and programs available at TSTC Corporate College, TSTC Marshall, TSTC Waco and TSTC West Texas. I invite you to frequently check out their programs and developments online.

This is an exciting time for TSTC. I hope you take the time to learn more about opportunities for your success.

Dr. Cesar Maldonado, P.E.,
President, TSTC Harlingen

The TSTC System

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

In 1967, JCTI expanded to include a South Texas campus in Harlingen. In 1969, the colleges separated from Texas A&M University and became an independent state system, with the name Texas State Technical Institute (TSTI) and its own Board of Regents. Additional campuses were created in 1970 in Amarillo in the Panhandle of Texas and in Sweetwater in West Texas. As the demand for quality technical education continued to grow, extension centers were established in McAllen (1983), Abilene (1985), Breckenridge (1989), Brownwood (1991), and Marshall (1991). In 1991, TSTI was renamed Texas State Technical College (TSTC). In 1999, the extension center in Marshall became an independent college of the system.

Today, serving as the corporate college for Texas, TSTC offers new, emerging and customized curriculum at four colleges: TSTC Harlingen, TSTC Marshall, TSTC Waco, and TSTC West Texas, which has campuses in Abilene, Breckenridge, Brownwood, and Sweetwater. In addition, programs and customized training are offered at partnership centers throughout the state.

TSTC is the only state-supported technical college system in Texas. TSTC's statewide role and mission is to efficiently and effectively help Texas meet the high-tech challenges of today's global economy, in partnership with business and industry, government agencies, and other educational institutions. TSTC has high graduation rates, exceptional postgraduate success rates, and an outstanding record in graduating individuals from diverse cultural and socioeconomic backgrounds. More than 30,000 students are served each year through traditional degree programs, short-term continuing education and corporate training programs.

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

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

TEXAS STATE TECHNICAL COLLEGE SYSTEM
ESTABLISHED
1965
TM

Notes:_____

Governance and Accreditation

The TSTC System is governed by a nine-member Board of Regents and operated under the direction of a systemwide Chancellor. These Regents, who provide a statewide perspective, are appointed by the governor to six-year terms. The Board meets quarterly to provide leadership and enact policies for the successful management and operation of the system. The Colleges operate under the rules and regulations of the Texas Higher Education Coordinating Board.

The Texas State Technical College System Chancellor is
Bill Segura, Ph.D.

The TSTC System Board of Regents include:
J.V. Martin, Chairman;
Rolf R. Haberecht, Ph.D., Vice Chairman;
Barbara N. Rusling, Executive Committee Place 1;
Joe M. Gurecky, Executive Committee Place 2;
Nora Castañeda, Member;
Joe K. Hearne, Member;
Michael F. Northcutt, Member;
Gene Seaman, Member; and
Ellis M. Skinner, II, Member.

Texas State Technical Colleges are accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award Associate of Applied Science degrees, Associate of Science degrees and Certificates of Completion. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about accreditation. Students may review accreditation records in the TSTC Office of the President.

Equal opportunity shall be afforded within the Texas State Technical College System to all employees and applicants for admission or employment regardless of race, color, gender, religion, national origin, age, or disability.

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

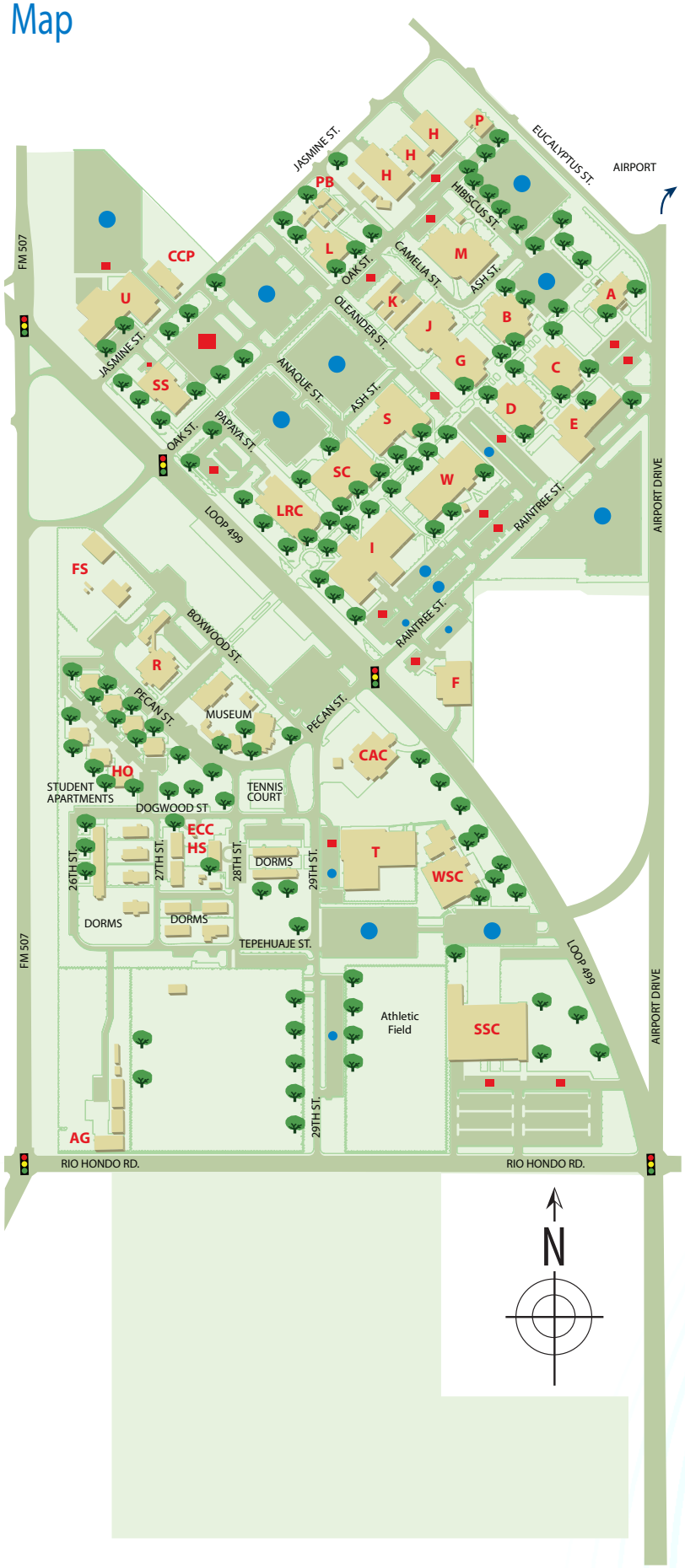
The following programs are accredited by the:
American Dental Association (ADA)
- Dental Assistant
- Dental Hygiene

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

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

Notes:_____

Map



College Buildings

A Auxiliary
Support Services / TSTC Police / Marketing Department

AG Agricultural Technology
Agricultural Technology (AGT)

B Corporate College
Continuing Education, Safety & Security, Industrial Training

C Office Occupations
Business/Office Technology (BOT) / Education and Training (ET)

D Biomedical/Dental Lab
Dental Laboratory Technology (DLT) / Biomedical Equipment Technology (BET)

E Transportation Technology
Automotive Technology (AUT)

F Autobody Collision Technology
Auto Collision Technology (AUB)

G Computer Science Programs
Computer Science Software Development (CSSD) / Computer Systems Management Technology (CSMT) / Game and Simulation Programming (GASP)

H Building Systems Technology
Air Conditioning & Refrigeration Technology (ACT) / Building Construction Technology (BCT)

HO Housing Office

I Administration/Industrial Technology
Welding Technology (WLT) / Machining Technology (MGT) / HR Office / President's Office

J Chemical/Environmental Technology
Chemical-Environmental Technology (CET)

K Workforce Development Programs
High School Equivalency Program (HEP) / Upward Bound (UB) / Educational Opportunity Center (EOC) / Workforce Investment Act (WIA) / Special Projects / Dual Enrollment

L Health Information Technology
Health Information Technology (HIT) / Medical Information Specialist/Transcriptionist (MIS/T)

LRC Dr. J. Gilbert Leal Learning Resource Center

M Advanced Manufacturing Technology
Telecommunications (TET) / Mechatronics (MT)

P Tech Prep

R Early College High School
Early College High School

S George F. Young Engineering Technology Center
Digital Media Design Technology (DMDT) / Computer Drafting & Design Technology (CDDT) / Computer Networking & Security Technology (CNST)

T Aviation Technology
Aviation Maintenance Technology (AER)

U Senator Eddie Lucio Health Science Technology
Culinary Arts (CA) / Dental Assistant (DEA) / Dental Hygiene (DEH) / Nurse Assistant (NA) / Medical Assistant (MEA) / Surgical Technology (ST) / Emergency Medical Technology (EMT) / Vocational Nursing (VN)

W State Rep. Irma Rangel Science and Technology
Nursing Preparatory Program (ADN) / EA

WSC Wellness & Sports Center

SC Student Center
Cafeteria / Student Government / Student ID Center & Game Room / Vice President of Student Development / Bookstore / Health Services / Job Placement

SS Student Services
Financial Aid / Admissions / College Information / Business Office / Counseling

SSC Service Support Center

● Student Parking

■ Employee Parking

Admissions Information

Personal Interviews and Campus Tours

Prospective students and their families are strongly encouraged to visit TSTC before registering for classes. During a campus visit each prospective student is assigned to an admissions advisor or education and career specialist (ECS), who serves as a personal contact to help in the transition to college. These staff members assist prospects and applicants throughout the testing, application, and registration processes. Contact the Office of Admissions and Records to schedule a personal interview and campus tour.

Admission Requirements

General Admission Requirements

Students who apply for admission into college credit programs may be admitted to any college within the Texas State Technical College System under any of the following categories. These apply to students in college credit programs.

- Graduate from a high school accredited by a state department of education and/or a recognized regional accrediting association.
- Transfer from another college, university, or other higher education institution that is regionally accredited.
- Complete a GED Certificate (General Education Development), as certified by a state education agency.
- Meet international student criteria. Potential students who are not United States citizens must present proper documentation for an appropriate visa category. Additional information relating to academic background and financial support, as well as a personal interview, may be required for admission. See "International Students" under the Admission Procedures section for further information.
- Meet individual approval criteria. Potential students who do not meet any of the above requirements and are age 17 or older and no longer attending high school may be admitted through individual approval.
- Meet exceptional admission criteria. Potential students who are under age 17 may be admitted through the exceptional admission program under one of the following categories, provided they present sufficient evidence that they can do college-level work as determined by the institution.
    - Age 16 or older and currently enrolled in high school without a diploma or GED, or age 16 and a graduate of an unaccredited or home high school.
    - Age 16 and no longer attending high school, or age 15 or younger.

In addition, all applicants must submit scores from an approved Texas Success Initiative (TSI) test, a TSTC-administered placement test, or provide appropriate documentation of TSI exemption or waiver.

Additional Program Admission Requirements

Some college credit programs have additional requirements that must be met before students may be admitted into those particular programs. These may include minimum scores on the admission placement test or other departmental tests, a physical standards statement assessing their physical capabilities for the program, letters of recommendation, or other program-specific requirements. Departments can provide additional requirements applicable to selected programs.

Notes:_____

Admission Procedures

General Admission Procedures

These procedures apply to students enrolling in college credit programs.

1. Complete an online admission application at www.tstc.edu.
2. Note that proof of Texas residency may be required to obtain resident tuition rates.
3. Depending on the category under which the applicant qualifies for admission, submit the following additional documents.
   a. High school graduate: an official copy of high school transcript
   b. College or university transfer: official transcripts from all institutions of higher education attended previously
   c. GED: a copy of GED certificate or official score report
   d. Individual approval students: individual approval form
   e. Exceptional admission students:
      - Age 16 or older and currently enrolled in high school without a diploma or GED, exceptional admission form signed by parent or guardian and high school representative; qualifying scores in writing and/or reading and/or mathematics on approved assessment instruments.
      - Age 16 or older and a graduate of a home high school or unaccredited high school: exceptional admission form (signed by parent or guardian if age 16).
      - Age 16 and no longer attending high school, or age 15 or younger: exceptional admission form signed by parent of guardian and high school representative; qualifying scores in writing, reading, and mathematics (Note: An information session with a TSTC official is also required. Contact the Office of Admissions and Records for more information.)
   f. International students: see "International Students" in this section for details
4. Submit scores from an approved TSI test, take a TSTC-administered placement test, or provide appropriate documentation of TSI exemption or waiver. If needed, make arrangements to take an assessment test by contacting the Counseling Office.

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

Former TSTC Students

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

International Students

College credit applicants who do not hold United States citizenship or permanent resident status should request a packet for international admissions. These applicants should also consult with the Registrar to identify their student status and to determine the specific documents they may need to provide. The following documentation may be required.

1. Application for admission and student health services form
2. College entrance testing, depending on major field of study
3. Immunization records
4. English translations of all secondary and/or postsecondary transcripts
5. Official TOEFL (Test of English as a Foreign Language) score report showing a minimum score of 15-30 in Reading, 14-30 in Listening, 22.5-4.0 in Speaking and 2.5-5.0 in Writing on a web-based exam (applies to applicants from countries where English is not the primary language)
6. Current affidavit of financial support to indicate ability to pay fees and reside in the United States while attending school
7. Valid visa, passport, and I-20 (applies to applicants already in the United States)

Due to delays in international communications, international applicants are encouraged to complete all admission requirements at least 90 days prior to the expected entry date. When TSTC receives all the required documents, the applicant will be issued an acceptance letter and an I-20MN.

International students must adhere strictly to United States Citizenship and Immigration Services laws. Therefore, they must:

1. be enrolled as full-time students and maintain satisfactory progress in their coursework;
2. maintain an I-94 on file in the Office of Admissions and Records;
3. carry medical and hospitalization insurance;
4. not obtain federal financial aid (except students holding to I-551 visas); and
5. comply with all TSTC regulations, laws of the State of Texas, and laws of the United States.

Failure to comply with any of the above regulations may result in termination from TSTC and deportation.

Academic Fresh Start

Texas Education Code 51.929 entitles residents of Texas to seek admission to public institutions of higher education without consideration of courses undertaken ten or more years prior to enrollment. This bill has been called the "right to academic fresh start" and it gives students the option of electing to have coursework taken ten or more years prior to the starting date of the semester in which the applicant seeks to enroll either counted as usual or ignored for admission purposes.

Applicants who elect to apply for admission under this law and who are admitted as students may not receive any course credit for courses undertaken ten or more years prior to enrollment. The Admissions Office may be contacted for further information regarding academic fresh start.

Academic fresh start can only be applied for and granted prior to initial enrollment. Applicants to TSTC who wish to apply for fresh start should complete the Academic Fresh Start form available at the TSTC Office of Admissions and Records.

Early Admission/Concurrent High School/Dual Enrollment

TSTC has agreements with many high school districts that permit eligible high school students to earn college credit while concurrently satisfying high school graduation requirements. Upon approval by the high school principal or designee and acceptance to TSTC through the exceptional admission program, a student may enroll in college courses taught either at the high school or at TSTC. Some fees may be waived in selected courses.

Students must earn passing grades in all college courses that they have attempted in order to maintain satisfactory academic progress. Enrollment in developmental courses is not permitted for a student enrolling under the exceptional admission program (concurrent high school or dual credit),

College credits earned through the exceptional admission program will be accepted by most institutions on the same basis as other college credit. There is a possibility, however, that a specific college may add additional requirements for transfer purposes.

Participation in the exceptional admission program may make some students ineligible for University Interscholastic League competition in certain areas, depending on the course taken.

Contact the TSTC Dual Enrollment Office or your high school counselor for more information.

Placement Testing

Prior to enrollment in credit courses, students must comply with placement testing requirements by submitting their scores on an approved Texas Success Initiative (TSI) test, by submitting documentation of TSI exemption or waiver, or by taking a TSTC-administered placement test. See "Testing and Placement Requirements" in the Scholastic Information section.

Assessment requirements for continuing education and workforce training programs are different from those described in this section. Contact the Continuing Education Office for more information.

Registration for Classes

After the above requirements are met and the required procedures completed, students may register for credit classes. Consult with your advisor or educational and career specialist and review the TSTC course schedule for more information on these classes. Contact Continuing Education Office for registration information for continuing education and workforce training programs.

Notes:_____

Tuition and Fees

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

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

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

Tuition

A student's tuition is determined by residency status, the number of hours taken, and whether the courses are for college credit or for continuing education or workforce training.

State Tuition Rates 2009-10

- Resident of Texas: $67.00 per semester credit hour
- Non-resident of Texas: $188.00 per semester credit hour

Designated Tuition Rate 2009-10

- $34 per semester credit hour

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

Tuition Rebate for Certain Undergraduates

In accordance with State law, a qualified student is eligible for a rebate of a portion of the undergraduate tuition the student has paid if the student:

1. is awarded a baccalaureate degree from a Texas public general academic teaching institution;
2. has attempted no more than three hours in excess of the minimum number of semester credit hours required to complete the degree, including transfer credits and course credit earned exclusively by examination; and
3. has been a resident of Texas and entitled to pay resident tuition at all times while pursuing the degree.

The amount of the rebate is $1,000 or the amount of undergraduate tuition paid by the student to the institution awarding the degree, whichever is less. If the student paid additional undergraduate tuition to other Texas public institutions of higher education, the student may qualify for an additional rebate by providing the degree-granting institution with proof of such payments. In any case, the amount of the rebate is a maximum of $1,000.

A student who has transferred from another institution of higher education must provide the degree-granting institution with an official transcript from each institution attended so that the total number of hours attempted by the student can be verified.

If the student has an outstanding student loan, including an emergency loan, owed or guaranteed by the State, including the Texas Guaranteed Student Loan Corporation, the degree-granting institution will apply the rebate to the student's loan. If a student has more than one outstanding loan, the institution will apply the rebate to the loans as directed by the student. If the amount of the rebate exceeds the amount of the loan indebtedness, the student will receive the excess amount.

Information pertaining to the Tuition Rebate Program is presented to students in Mustang Orientation.

Additional information pertaining to the Tuition Rebate Program for undergraduate students may be found on the TSTC Harlingen Website or may be obtained from the Office of Admissions and Records.

The institutional contact for the Tuition Rebate Program is Blanca Guerra, Director of Admissions and Records at 956.364.4100.

Fees

Students' fees are determined by a variety of factors, as described in the accompanying table. Not all of these fees apply to continuing education and workforce training programs; contact Business Office, Student Receivables for more information.

Fees and Waivers

TYPE OF FEE	AMOUNT OF FEE (2009-11)	NOTES
Non-Resident E-Learning Fee	$222.00 per semester credit hour	For out-of-state residents enrolled in distance learning credit courses. Courses are exempt from all other state and designated tuition.
Testing Center Exam Fee	Cost of exam	Applies to tests taken at TSTC Testing Centers and to TSTC Challenge Exams; Includes fee for test administration
Program-specific Fees and Costs	Varies	For some credit programs
Continuing Education/Workforce Training Fees and Costs	Varies	For some continuing education/workforce training courses
Out-of-State Resident and Worker Continuing Education Tuition	At least twice the continuing education tuition rate for the associated course-section	For non-residents who are brought from outside the state by their employers to attend the course
Credit Award Evaluation Fee	$25.00 per evaluation	Applies to evaluation of CEUs and/or experiential learning for the purpose of awarding TSTC semester credit
External Certification of Specialty	Cost of exam	
Allied Health Malpractice Insurance	Cost of insurance	For students in allied health programs
Student Medical Health and Accident Insurance	Cost of insurance	Optional, unless required by program
Library Fines	Varies by College 10 cents per book or magazine per day $1.00 per video or DVD per day Lost Item – cost of replacement plus a 10% processing fee	
Mailbox Fee	$5.00 per semester	For TSTC West Texas, Sweetwater, students living off campus

Waivers and Exemptions

The tables in this section describe tuition waivers and exemptions for college credit courses.

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

WAIVERS & EXEMPTIONS FOR RESIDENTS	OFFICE
Students who graduate early from a Texas high school	Financial Aid, Student Services Bldg., 956.364.4330
Students who are the highest ranking graduate of their high school class (valedictorian)	Financial Aid, Student Services Bldg., 956.364.4330
High school graduates who received AFDC benefits while in high school	Financial Aid, Student Services Bldg., 956.364.4330
Texas veterans or dependents of Texas veterans who were killed in action or died while in service (Hazlewood)	Financial Aid, Student Services Bldg., 956.364.4330
Children of POWs and MIAs as certified by the U.S. Department of Defense	Financial Aid, Student Services Bldg., 956.364.4330
Children of disabled Firefighters or Peace Officers as certified by the Texas Higher Education Coordinating Board	Financial Aid, Student Services Bldg., 956.364.4330
Blind or Deaf Students as certified by the Texas Rehabilitation Commission, The Texas Commission for the Blind, or the Texas Commission for the Deaf and Hard of Hearing (Blind or Deaf students are certified by the Department of Assistive and Rehabilitative Services – Rehabilitation Services, Blind and Deaf-Blind Services, and Deaf and Hard of Hearing Services.)	Support Services, Auxiliary Bldg., 956.364.4520
Students employed as Certified Educational Aides as authorized by the Texas Higher Education Coordinating Board	Financial Aid, Student Services Bldg., 956.364.4330
Students in foster or other residential care as certified by the Texas Department of Protective and Regulatory Services	Financial Aid, Student Services Bldg., 956.364.4330

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

WAIVERS & EXEMPTIONS FOR RESIDENTS OR NON-RESIDENTS	OFFICE
High school students enrolled in class sections for dual high school and college credit may have state and designated tuition waived or reduced.	Dual Enrollment, College Readiness & Advancement Bldg., 956.364.4321
Students enrolled in more than one Texas public institution of higher education at the same time may have a reduction in minimum state tuition charges.	Financial Aid, Student Services Bldg., 956.364.4330
Senior citizens 65 years of age or older may audit courses without payment of state and designated tuition	Business Office, Student Services Bldg., 956.364.4410
Citizens 55 years of age or older may have state tuition waived upon verification of age	Business Office, Student Services Bldg., 956.364.4410
TSTC employees, their spouses and/or dependents have a reduction in state tuition and a waiver of designated tuition.	Human Resources, Industrial Technology Bldg., 956.364.4042

Students classified as Non-residents of Texas for purposes of tuition assessment may be eligible to pay resident rates if they qualify for one of the waivers or exemptions listed. Contact the appropriate office for additional information and to determine eligibility.

WAIVERS & EXEMPTIONS FOR NON-RESIDENTS	OFFICE
Military personnel stationed in Texas and their spouses and children	Financial Aid, Student Services Bldg., 956.364.4330
Individuals employed at least half time as teachers or professors at Texas institutions of higher education and their spouses and children	Financial Aid, Student Services Bldg., 956.364.4330
Individuals employed at least half time as teaching or research assistants at Texas institutions of higher education and their spouses and children	Financial Aid, Student Services Bldg., 956.364.4330
Students whose families transferred to Texas as a part of the State's plan for economic development. Employer company must be certified as eligible by the Texas Higher Education Coordinating Board	Financial Aid, Student Services Bldg., 956.364.4330
Students who receive a competitive scholarship of at least $1,000	Financial Aid, Student Services Bldg., 956.364.4330
Students who reside in a county or parish of Arkansas, Louisiana, New Mexico, or Oklahoma that is adjacent to Texas where a current reciprocity agreement is in effect with a college or university in the out-of-state county or parish.	Financial Aid, Student Services Bldg., 956.364.4330
Students from Mexico or Canada enrolled through a Texas Higher Education Coordinating Board approved Exchange Program	Financial Aid, Student Services Bldg., 956.364.4330
Students from Mexico who demonstrate financial need	Financial Aid, Student Services Bldg., 956.364.4330
Nonimmigrant aliens residing in Texas in accordance with NATO treaties and their spouses and children	Financial Aid, Student Services Bldg., 956.364.4330

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

Methods of Payment

Cash

All tuition and fees may be paid in cash.

Personal Checks

All tuition and fees may be paid by personal check. Students who pay by check or who cash checks at TSTC must present a valid TSTC identification card and a valid Texas driver's license.

Credit and Debit Cards

All tuition and fees of $10 or more may be paid by credit or debit card. Students paying with credit or debit cards may make payment online through WebAdvisor at http://my.tstc.edu.

Installment Payment Plan

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

In order to validate the payment plan option, the initial payment and the signed Installment Agreement must be returned to the Business Office, Student Receivables at the time of registration.

The payments are due as follows:

Fifteen-Week Term:

⅓ prior to the beginning of the term plus the $10 installment plan fee
⅓ prior to the 6th class week
⅓ prior to the 11th class week

Twelve-Week or Longer Term:

⅓ prior to the beginning of the term plus the $10 installment plan fee
⅓ prior to the 5th class week
⅓ prior to the 9th class week

Less Than Twelve-Week Term:

½ prior to the beginning of the term plus the $10 installment plan fee
½ before the class week prior to the halfway point of the term

A student who elects to pay in installments will:

1. pay a $10.00 installment plan fee;
2. be responsible for making payments on or before the due dates established at the time of registration;
3. be charged a late fee of $25.00 for each payment made more than seven business days after the payment is due;
4. be unable to obtain official copies of his/her student records until the debt is paid in full;
5. be at the risk of being dropped or barred from attending classes until the debt is paid or acceptable arrangements are made with the Student Receivables Office; and
6. be responsible for payment of any remaining balance if he/she withdraws from the College.

Emergency Tuition Loan

College credit students who are unable to pay their state and designated tuition at the time of registration because of financial hardship may be eligible for emergency tuition loans. A student who is unable to repay the emergency tuition loan on the date due may apply for a possible extension for repayment. Contact the Business Office, Student Receivables for more information.

Notes:_____

Meal Plans

70 meals per semester
(flexible Monday - Friday)
$475 per semester (includes tax)

140 meals per semester
(Monday - Friday)
$925 per semester (includes tax)

Notes:_____

Housing

Housing deposit of $100 is required.

Single Students

Oak Tree Apartments
4 Students
$655 per semester per student
(2 bedrooms/each dbl occupancy)

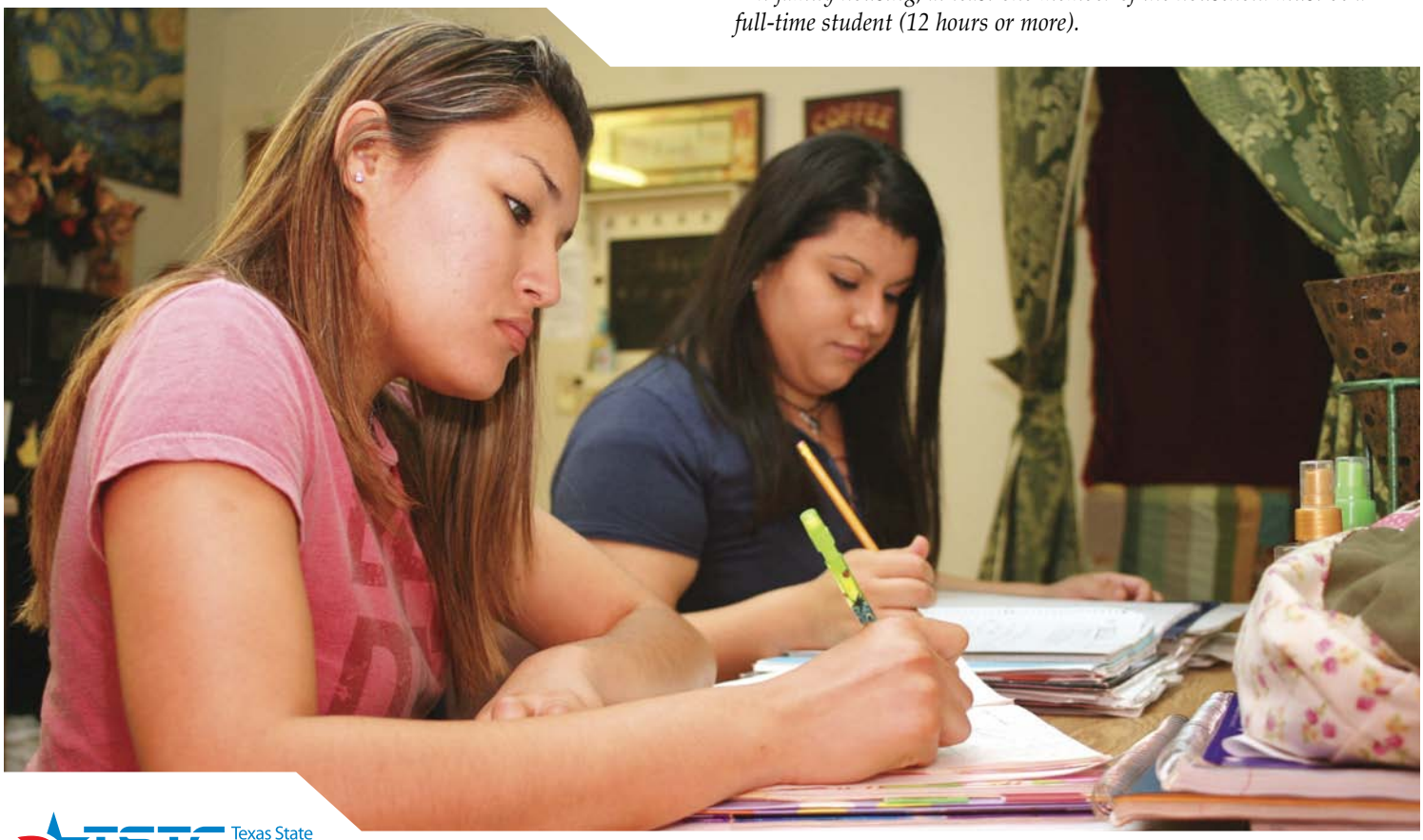
Palo Blanco Dorms
2 Students
$725 per semester per student
Double occupancy w/kitchenette

Las Palmas Dorms
2 Students
$725 per semester per student
Double occupancy w/microwave & refrigerator

Families: Married/Single Parents

2 bedrooms
Maximum Occupancy
4 persons
$455 per month

** In family housing, at least one member of the household must be a full-time student (12 hours or more).*



Refunds

Refunds for Changes in Enrollment

The following definitions apply when calculating refunds for changes in course enrollments.

- Reduction in course load occurs when a student drops a course(s) having more credit hours than he/she adds, resulting in the student being enrolled in fewer credit hours overall.
- Withdrawal occurs when a student completely ends his/her enrollment at the College for the current term.
- Credit courses are courses for which a student is eligible to earn semester credit hours toward an institutional award, certificate or associate degree. Credit courses also include support courses required for the student's enrollment, such as developmental education, etc.

Refunds for Drops/Reduction in Course Load

Students who drop credit courses and reduce their course loads while remaining enrolled at the College will have their state and designated tuition refunded, based on the official drop date recorded by the Office of Admissions and Records. Students who concurrently add and drop the same number of credit hours will not be charged or refunded for these simultaneous transactions.

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

Students in semester credit hour courses who officially withdraw from school or drop a course after classes begin will have their state and designated tuition and fees refunded according to the following schedule unless the fees are specifically designated as non-refundable.

Class days are defined as calendar days during which classes are normally scheduled and not the specific days a particular class meets.

Notes:_____

_____

_____

_____

_____

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_____

_____

_____

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

Refunds for Federal Financial Aid Recipients

Special refund requirements apply to students who receive federal aid that is classified as "Title IV" funds. Title IV funds include awards such as Federal Pell grants, Federal Supplemental Educational Opportunity grants (SEOG), William D. Ford Federal Direct Loans and Federal Stafford loans, Perkins loans and PLUS loans, and other federal awards. Students must attend classes to remain eligible for federal financial aid. Students who are considering withdrawing from all classes before completing 60% of the semester should contact the Financial Aid Office at 956.364.4330 to learn how this would affect their financial aid.

If a student reduces a course load or withdraws from TSTC, the College and/or the student may be required to return federal funds awarded to the student. The student may be eligible for a refund of a portion of the state and designated tuition paid to TSTC for that term. If the student received financial assistance, the refund is returned to the grant, scholarship, or loan sources from which the assistance was received.

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

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

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

Order of Return of Title IV Funds

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

1. Unsubsidized Federal Stafford loans
2. Subsidized Federal Stafford loans
3. Unsubsidized Direct Stafford loans (other than PLUS loans)
4. Subsidized Direct Stafford loans
5. Federal Perkins loans
6. Federal PLUS loans
7. Direct PLUS loans
8. Federal Pell Grants for which a return of funds is required.
9. Academic Competitiveness Grants for which a return of funds is required.
10. National Smart Grants for which a return of funds is required.
11. Federal Supplemental Educational Opportunity Grants (FSEOG) for which a return of funds is required.
12. Other Title IV aid
13. Other Federal, State, Private or Institutional Aid
14. The Student

For more detailed information on the entire refund procedures for Financial Aid students or about the calculation of refund amounts, contact the Financial Aid Office at 956.364.4330.

Bookstore Refunds

- Please visit or contact the bookstore for return and buy back policies.
- Continuing Education books must be returned 3 days from the first day of class. Textbooks returned for a full refund must be in sellable condition and packaging, if applicable, must not be broken.

Tools, supplies, and notions are non-refundable, unless they are defective. If they are defective, the items must be returned within two weeks of purchase and must be accompanied by the sales receipt in order to receive a refund.

Housing Refunds

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

- $100.00 security deposit or remaining balance after charges
- No refunds of rental fee will be given during the last 10 school days of the semester
- Rent refunds are based on a pro-rated formula

Refund of Other Fees

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

Financial Assistance

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

Several types of financial assistance are available to TSTC students. These include grants, which are free money awarded to students with the most financial need and which do not have to be repaid; scholarships; part-time on-campus or community service employment; and loans, which must be repaid.

Applying for Financial Assistance

When to Apply

The key to obtaining financial assistance is to apply early. To ensure that an aid package is available and ready, TSTC recommends the completed file be received in the Financial Aid Office according to the following schedule:

To enroll in the:	**Apply for financial assistance by:**
Fall Term	May 1
Spring Term	October 1
Summer Term	March 1

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

Since financial assistance is not always available at registration, it is recommended that students make alternative arrangements to pay registration expenses. Contact the Business Office for information on emergency loans.

How to Apply

These are the first steps in applying for financial assistance.

1. Obtain a financial aid application packet from a high school counselor, the TSTC Financial Aid Office or on the Internet at www.fafsa.ed.gov. Be sure it is for the academic year you will be attending college.
2. Complete the Free Application for Federal Student Aid (FAFSA), using the appropriate federal base-year tax forms.
3. Complete the FAFSA through the Internet at www.fafsa.ed.gov. For more information regarding this, contact FAFSA Customer Service at 1-800-801-0576.

or

If you would like the TSTC Financial Aid Office to assist you in submitting your FAFSA electronically, please take the following to that office:

(a.) You will need records of income earned in the year prior to when you will start school. You may also need records of your parent's income information if you are a dependent student.

(b.) For the 2009-2010 school year, you will need financial information from 2008. You will need to refer to:

- (i) Your Social Security Number (can be found on Social Security card)
- (ii) Your driver's license (if any)
- (iii) Your 2008 W-2 Forms and other records of money earned
- (iv) Your (and your spouse's, if you are married) 2008 Federal Income Tax Return - IRS Form 1040, 1040A, 1040EZ, 1040Telefile, foreign tax return, or tax return for Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, the Marshall Islands, the Federated States of Micronesia
- (v) Your parent's 2008 Federal Income Tax Return (if you are a dependent student)
- (vi) Your 2008 untaxed income records - Social Security, Temporary Assistance to Needy Families, welfare, or veterans benefits records
- (vii) Your current bank statements
- (viii) Your current business and investment mortgage information, business and farm records, stock, bond, and other investment records
- (ix) Your alien registration card (if you are not a U.S. citizen)

(c.) For the 2010-2011 school year, submit the 2009 income information.

4. Officially declare a major to the TSTC Admissions Office and complete the admissions process. Undeclared majors are not eligible for financial aid.
5. Pre-register according to College registration dates and guidelines. If your awards are cleared and you register early, your financial aid will be credited to your student account prior to the start of the term.

Additional steps may be required to apply for some types of financial assistance. For example, a separate loan application may be needed, since promissory notes go to the lenders. And certain programs of study require additional documentation before financial assistance applications are processed. Contact the Financial Aid Office for more information and assistance.

Types of Financial Assistance

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

- **Federal Pell Grant**. This federal aid program provides financial assistance for obtaining a postsecondary education. It is intended to be the base of a student's financial aid package. Eligibility is based on a student's financial need.

- **Federal Supplemental Educational Opportunity Grant (FSEOG)**. This federal aid program helps college students who have exceptional need. The amount of the FSEOG varies according to the availability of other grants, scholarships, loans, and student employment. FSEOG funds are limited and are awarded on a first-come first-served basis.
- **Texas Public Education Grant (TPEG)**. This state program provides financial assistance in obtaining a postsecondary education. Eligibility is based on a student's financial need.
- **Toward EXcellence, Access & Success (TEXAS)**. These state awards pay state and designated tuition for certain students who have graduated from Texas public or accredited private high schools within the preceding 16 months. Students must have completed the recommended or advanced high school curriculum and be able to show financial need. Students who do not meet the criteria for the TEXAS Grant may be eligible for the Texas Grant II.
- **Leveraging Educational Assistance Programs (LEAP, SLEAP)**. Priority for these awards is given to full-time students with financial need. Within this group, priority is given to students whose complete files are in the Financial Aid Office by the application deadline. Funds are disbursed only during the fall term and are awarded on a first-come, first-served basis.
- **Federal and State Work-Study Program (FWSP)**. Work-study programs are designed to stimulate and promote part-time on-campus employment of students, particularly those who need financial assistance. Funds are available to the College to help create job opportunities for eligible students; however, these funds are limited and students must apply early.
- **Federal Loans**. Various types of federal loans are available, including the Federal Direct Subsidized, Federal Direct Unsubsidized, and Federal Direct Parent Loan. To be certified for a loan, students must first apply for the Federal Pell Grant, as described earlier in the Financial Assistance section. Because changes occur frequently in federal regulations, call or visit the Financial Aid Office for details regarding loan amounts, eligibility criteria, repayment responsibilities, etc.
- **Federal Academic Competitiveness Grant (ACG).** The ACG is available to undergraduate students who have successfully completed a 'rigorous secondary school program of study.' Eligibility is determined upon TSTC's receipt of the processed FAFSA. Student should complete and file the FAFSA.
- **Department of Assistive and Rehabilitative Services.** The Department of Assistive and Rehabilitative Services (DARS) provides financial assistance to students whose significant physical or mental disabilities have resulted in substantial vocational disabilities. Learning disorders are among the eligible conditions. In order to provide training assistance, DARS must determine that such training is necessary for employment and that the individual has a good chance of success in the chosen program. Applicants must submit an application and be tested and counseled before eligibility is determined. The amount of DARS assistance depends on available funds and individual need. A full-time DARS representative is available to assist DARS clients while attending TSTC. Contact your local Department of Assistive and Rehabilitative Services office for an application and more information.
- **Trade Adjustment Assistance (TAA)**. The Trade Adjustment Assistance (TAA) Program is a federal program established under the Trade Act of 1974, as amended The TAA Program provides aid to workers who lose their jobs or whose hours of work and wages are reduced as a result of increased imports. Interested applicants should contact the Texas Workforce Commission Office in the county of their residence.
- **Workforce Investment Act (WIA)**.The Workforce Development Board in your area may offer payment of tuition and/or other expenses to students who qualify for this program. Interested applicants should contact the nearest Workforce Center or call 1-800-457-5600 or 1-800-457-5633. Applications for the program should be made as far in advance of registering as possible.
- **Veterans' Benefits (G.I. Bill)**. TSTC is approved for training veterans and their eligible dependents under the provisions of various laws commonly called the G.I. Bill. A veteran with remaining entitlement may receive a monthly check, which varies in amount based on class load and the type of eligibility that the veteran has. Fees and tuition are paid by the student at registration. A spouse or child of a veteran may receive benefits under certain conditions. The DD form 214 and all official college, university and military transcripts may be required. Veterans who are eligible for assistance under any of the Department of Veteran's Affairs programs should contact the Financial Aid Office.

Scholarships

Each year a number of individuals, businesses, and organizations provide scholarships for TSTC students. These allow students to be recognized for their hard work, as well as for their need for assistance. Most of these scholarships, which vary in amount, are available to students after they complete one or two terms. A partial listing of TSTC scholarships is included in the accompanying table. Contact the Financial Aid Office for additional information and a complete list of available scholarships.

Lozano Long Promise Opportunity Scholarship Full-time

- Need Based
- Full Time $2,000 / $666 per semester

Majors Eligible:

- All Technologies
- EA

Eligibility Requirements:

- Must be U.S. Citizen
- Enrolled at TSTC Harlingen
- Minimum 2.5 GPA

Lozano Long Promise Opportunity Scholarship Part-time

- Need Based
- Part Time (6-11 credits) $1,000 / $333 per semester

Majors Eligible:

- All Technologies
- EA

Eligibility Requirements:

- Must be U.S. Citizen
- Enrolled at TSTC Harlingen
- Minimum 2.5 GPA

Investment in Competitive Texas

- Need Based
- $500 per semester for two semesters

Majors Eligible:

- All Technologies

Eligibility Requirements:

- New and returning full-time students
- Technical programs only
- U.S. citizen or eligible non-citizen
- Minimum 2.5 GPA

Shell Merit / Incentive Scholarship

- Merit
- $250 for one semester

Majors Eligible:

- Chemical-Environmental Technology

Eligibility Requirements:

- Returning full-time student
- Selection made by Program
- Minimum 2.8 GPA

NOTE: Scholarship qualifications, availability, and amounts are subject to change. For current listings, requirements, and changes, review the on-line scholarship information.
http://www.harlingen.tstc.edu/FinancialAid/Scholarships.aspx

Notes:_____

Waivers and Exemptions

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

Maintaining Financial Aid Eligibility

To remain eligible for financial aid, a student must meet the Standards of Academic Progress for Financial Aid, which are different from those described in "Scholastic Standing" in the Scholastic Information section of this catalog. A student's scholastic records are reviewed at the end of each term to determine if he/she is making satisfactory progress. This review includes all periods of the student's enrollment, even those for which the student did not receive financial aid.

Students receiving financial aid must continually be aware of their grades. A student who is placed on financial aid probation or suspension may be notified in writing by the Financial Aid Office; however, failure to receive such notification does not change the student's financial aid status.

Financial Aid Standards of Academic Progress

Students must maintain at least a 2.0 Financial Aid Grade Point Average (GPA) in each term for which aid is approved and must also maintain at least a 2.0 Financial Aid Cumulative GPA for all courses taken. Both credit and developmental education courses are included in these calculations. Transfer students begin enrollment at TSTC in good standing and their progress is monitored from that point on. See "Grade Point Averages" and "Scholastic Standing" in the Academic Information section for more details.

In addition, students must successfully complete the number of credits outlined in the following chart, based on the hours they attempt each term. Successful completion means a student has received a minimum grade of D. Courses in which students receive grades of F, IP (in progress), and W (withdrawal) are not considered completed courses. See "Grading Standards" in the Academic Information section of this catalog.

Credit Hours Attempted:	Min. Hours to be Completed:
More than 12 credit hours	75%
9 to 12 credit hours	8 credits
6 to 8 credit hours	6 credits
Less than 6 credit hours	100%

Students enrolled in required remediation (developmental studies) as indicated by testing or as recommended by counseling, may receive financial aid for no more than 27 semester hours of remedial courses. All remedial courses attempted, including failures, incompletes, and withdrawals are counted toward the 27-semester hour maximum.

Courses that are repeated are not funded, unless the courses are needed to meet graduation requirements. Audited courses, continuing education courses, workforce training courses, and those courses for which a student enrolls after the official class day are not considered for funding.

Failure to Meet Financial Aid Standards of Academic Progress

The first time a student fails to meet the financial aid standards of academic progress, he/she is placed on financial aid probation for the next term of enrollment.

The student remains on probation if he/she subsequently earns a Financial Aid Cumulative GPA of less than 2.0 and has a Financial Aid Term GPA of 2.0 or higher. A student who fails to meet the standards of academic progress during the probation term is placed on financial aid suspension. Applications for financial aid, including loans, are not certified while a student is on financial aid suspension.

To regain eligibility for financial aid, the student must enroll at TSTC on at least a half-time basis for one term, pay the expenses related to that enrollment, and attain the financial aid standards of academic progress. After this is achieved, the student is again eligible to apply for financial aid.

Satisfactory Progress for Loan Recipients

Loan checks may not be released to students who are on probation if their last Financial Aid Term GPAs are less than 1.0. Students with Financial Aid Term GPAs of 1.0 to 1.99 must meet additional requirements before their checks are released. If students do not complete at least six credit hours per term, their loan checks are not released and the remainder of their loans is cancelled.

Appeal Process Related to Standards of Academic Progress

If there are mitigating circumstances, a student who has been denied financial aid because of failure to meet the financial aid standards of academic progress may file a written appeal to the director of financial aid. A student may have only one appeal granted while he/she is at TSTC.

Maximum Time Frame for Receiving Financial Aid

Students may receive financial assistance for up to 150 percent of the certificate or degree programs' required credit hours. Students who change programs or who enter new programs after graduation should consult with the Financial Aid Office to confirm their continuing eligibility for financial aid.

Refunds for Financial Aid Recipients

Refunds for financial aid recipients depend on the students' withdrawal dates. For example, students withdrawing before the 60% date of the semester may owe the College money. For more information, see "Refunds for Federal Financial Aid Recipients" in the Refunds section of this catalog.

Notes:

Scholastic Information

Grading Standards

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

The following system of final grades and marks is used by TSTC to report student performance for each course attempted and/or credited toward graduation.

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

Grade	Interpretation	Grade Pts.
AUD	Audit of Course	NC
S	Satisfactory (for use in Continuing Education courses and programs)	NC
UN	Unsatisfactory (for use in Continuing Education courses and programs)	NC
X	No Grade Assigned	NC
FA	Failing (prior to September 1988)	0
I	Incomplete (prior to September 1988)	NC
U	Unsatisfactory (prior to September 1988)	0
WF	Withdrew Failing (prior to September 1988)	0
WP	Withdrew Passing (prior to September 1988)	NC

NC: Not Computed

Grade Point Averages

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

Term Grade Point Average

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

Cumulative Grade Point Average

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

Standards of Progress Grade Point Average

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

Scholastic Standing

TSTC's scholastic standards are based on a philosophy of advancing student progress toward successful course and program completion. The criteria for scholastic standing are designed to monitor student progress so that faculty and staff can intervene and assist students who have difficulty meeting minimum requirements.

Scholastic standing is computed at the end of each enrollment period and is based on the Standards of Progress (SOP) Term and Cumulative GPAs.

Good Standing

A student who maintains 2.00 or higher SOP Cumulative and Term GPAs at the end of each enrollment period is in good scholastic standing.

A student who does not maintain this minimum is placed on scholastic alert, scholastic probation, or scholastic suspension. These three scholastic levels alert faculty and staff to problems in the student's scholastic performance so that appropriate intervention and assistance can be provided.

Scholastic Alert

A student in good standing whose SOP Cumulative or Term GPA is below 2.00 at the end of an enrollment period receives a scholastic alert. Scholastic alert is an early warning for the student to meet with a counselor or advisor prior to registration for assistance with academic problems. A student continues on alert status by achieving a SOP Term GPA of 2.00 or higher at the end of the enrollment period. A student is removed from scholastic alert when the SOP Cumulative and Term GPAs are 2.00 or higher.

Scholastic Probation

A student whose SOP Cumulative and Term GPAs fall below 2.00 at the end of a scholastic alert enrollment period is placed on scholastic probation. A student may continue on scholastic probation by achieving a SOP Term GPA of 2.00 or higher at the end of the enrollment period. A student is removed from scholastic probation when the SOP Cumulative and Term GPAs are 2.00 or higher.

Scholastic probation is a serious warning that the quality of the student's work must improve in order for the student to continue enrollment at TSTC. Students on scholastic probation are required to meet with a counselor or advisor prior to registration and may be required to enroll in special programs or courses. After counseling with appropriate college staff, the student may be permitted to enroll in a new program.

Scholastic Suspension

Scholastic suspension occurs when a student on scholastic probation fails to maintain minimum academic standards. A student on scholastic probation who fails to achieve a SOP Term GPA of 2.00 or higher is suspended for the next enrollment period. A suspended student may appeal for a waiver of the suspension

to the instructional dean or his/her designee. A student on scholastic suspension is permitted to reapply for enrollment after one term. A student who re-enters the college after having been suspended is placed on scholastic probation and is subject to the minimum requirements governing scholastic probation.

Scholastic Honors

Full-time students (those enrolled for 12 or more credits) who earn SOP Term GPAs of 4.0 are placed on the President's List. Full-time students who earn SOP Term GPAs of 3.5 to 3.99 are placed on the Dean's List.

Grade Reports

Students are expected to monitor their academic progress. Final grade reports are provided to students at the end of each term on the TSTC Web site via WebAdvisor at http://my.tstc.edu. Students should review the grade reports for accuracy. All requests for review or correction must be submitted to the Office of Admissions and Records within 12 months of the close of the semester in which the course was taken.

Grade Changes

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

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

Transcript of Credit

The transcript of credit is an official statement of the student's complete academic record accumulated at TSTC. Upon a written or Web request to any TSTC college, the Office of Admissions and Records will release official transcripts to the student or to a third-party that is authorized by the student to receive the transcript. Normally, the minimum time for processing such requests is 24 hours; however, transcripts requested at the end of a term require approximately one week for processing. Students who request transcripts prior to the end of a term, with current courses and grades to be included in the transcripts, must clearly note the current work as part of the request.

Official transcripts may be withheld if any financial obligations to TSTC have not been paid or if official transcripts have not been received from previously attended institutions. Students who have not complied with all exit requirements will not be provided with transcripts.

Classification

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

Course Load

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

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

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

Assessment and Testing Requirements

Before enrolling at TSTC, all students must either present scores on an approved Texas Success Initiative (TSI) test, present evidence of TSI completion from another Texas college or university, or present proof that they are exempt from the TSI requirements (see "Test Exemptions"). Additional placement testing may be required for entry into specific courses or programs.

Before receiving an Associate Degree, all students must complete TSI requirements as required by Texas law specified in the TSTC Texas Success Initiative Plan. In general, students may meet TSI standards by completing the capstone developmental education courses with a grade of C or better in the skill areas of reading, writing, and mathematics, by participating in and completing a developmental education activity specified on the students' individual TSI plans,

or by re-testing and passing an approved TSI test. Additional information regarding TSI completion requirements may be obtained from the Counseling Office, Student Services Room 144.

Students who are not exempt from TSI requirements and who do not obtain passing scores on the appropriate tests must adhere to the following.

- Associate of Applied Science Degree programs: must participate in developmental education programs during each enrollment period until TSI requirements are met.
- Level II Certificate programs (43 or more semester credit hours): may be required to participate in developmental education programs.
- Level I Certificate programs (42 or less semester credit hours): may not be required to participate in developmental education programs.

Students who enroll first in a Level I Certificate program and then change to a Level II Certificate or an Associate of Applied Science Degree program must meet the requirements of the new program.

Test Standards

The following table provides the minimum passing scores on approved TSI tests.

	Reading	Writing	Math
THEA	230	220	230
Accuplacer	78	80 with Essay Score = 5	63
Compass	81	59 with Essay Score = 5	39
Asset	41	40 with Essay Score = 5	38
Writing Essay		6	

Note: Test score information is subject to change. Confirm required scores at the Counseling Office, Student Services Room 144.

Some TSTC Harlingen course prerequisites may require a higher minimum score than those outlined by the above minimum standards. To determine if prerequisite requirements have been met, contact the Counseling Office, Student Services Room 144.

Non-native English speakers are required to be assessed in reading, writing, and math skills. An alternative test such as TOEFL may be used to determine the level of English proficiency. Depending upon scores, students will be enrolled in non-credit English as a Second Language (ESL) courses, academic ESL courses, developmental courses in reading and math, and/or college-level courses as appropriate until such time as their English proficiency allows testing on an approved TSI instrument. Contact the Counseling Office, Student Services Room 144 for additional information.

TSI Testing Schedule

The THEA test and other approved TSI tests are administered at each TSTC college on a variety of schedules. Check with the Counseling Office, Student Services Room 144 for specific dates and times. Some tests may be available on computer, as well as on paper.

Non-passing Scores

Students who test below the minimum passing standards will be assigned to an individual TSI plan which will provide specific course and/or non-course activities for completing TSI requirements.

There are no restrictions on the number of times students may retake a TSI approved test in order to achieve passing scores. However, it is in students' best interest to complete the developmental education program or activity specified on their individual TSI plans for the sections of the test they have failed before they retake the test.

Students who do not achieve passing scores on their first attempt complete TSI standards and may satisfy requirements for each skill area in reading, writing and mathematics with any of the following methods:

1. Complete the capstone developmental education course with a grade of C or better for a specific skill area. The capstone developmental education courses are:
   READ 0200, Reading Skills II
   WRIT 0200, Writing Skills II
   DMTH 0200, Intermediate Algebra

2. Re-test on an approved TSI test in a specific skill area and achieve a passing score. Contact the Counseling Office, Student Services Room 144 for information on specific college procedures and schedules for testing and re-testing.

3. Achieve a mastery level in PLATO for a specific skill area. (Not available at TSTC Harlingen campus.)

4. Complete the specific developmental activity prescribed on the individual student TSI plan.

TSI Test Exemptions

1. Students who meet the following score standards for ACT, SAT, or TAKS tests may be exempt from TSI requirements in a specific skill area if the tests have been taken within the approved time frame. Students must provide official scores to the Counseling Office prior to enrollment in order to qualify for this exemption.
   - **ACT**: composite score of 23, combined with a minimum of 19 on the English and/or the mathematics tests; test date no more than five years prior to enrollment
   - **SAT**: combined verbal and math score of 1070, with a minimum of 500 on the verbal and /or mathematics tests; test date no more than five years prior to enrollment
   - **TAKS**: minimum score of 3 on the writing essay test and 2200 on the English Language Arts test, and/or 2200 on the math test, and; test date no more than three years prior to enrollment.
2. Students who have graduated with an associate's or higher degree from a Texas public institution of higher education are not required to take a TSI test. Students are responsible for providing official transcripts from the degree-granting institution.

3. Students who have completed TSI requirements or have been exempted at another institution of higher education are exempt from testing requirements provided an official transcript is submitted which indicates TSI completed status.
4. Students from private or out-of-state institutions of higher education who have completed college-level coursework equivalent to TSTC's TSI Academic Core Component Courses are exempt from testing requirements provided official transcripts are submitted.
5. Students who are retired or have been honorably discharged from active duty in the armed forces of the United States, the Texas National Guard or a reserve component of the armed forces of the United States on or after August 1, 1990 are exempt from testing requirements. Appropriate documentation of status is required.
6. Students currently serving on active duty in the armed forces of the United States, the Texas National Guard, or service in a reserve component of the armed forces of the United States with at least three years service prior to enrollment at TSTC are waived from testing requirements. Students on active duty must present a letter from their commanding officer or current duty papers for each semester of enrollment.

Testing and remediation policies are subject to change without notice. Contact the Counseling Office for more information.

TSI Core Component Courses

TSTC has designated the following academic courses as a core component courses for TSI reporting. Students who transfer from regionally accredited institutions of higher education with grades of C or higher in courses that are equivalent to these TSTC courses will be considered to have satisfied TSI requirements. Students must submit official transcripts indicating successful completion of these courses.

Writing

ENGL 1301, 1302	Composition I, II
ENGL 2311	Technical & Business Writing
ENGL 2314	Technical & Business Writing I

Reading

GOVT 2301, 2302	U.S. Government
HIST 1301, 1302	U.S. History
PSYC 2301	General Psychology
SOCI 1301	Introduction to Sociology

Mathematics

MATH 1314	College Algebra
MATH 1316	Plane Trigonometry
MATH 1332	College Mathematics
MATH 1333	Math for Liberal Arts

Advising

TSTC believes advising is essential to student success, and, therefore, the College supports student progress with designated advisors. All new students are to contact an Admissions Advisor to begin the advising process, either prior to or upon completing the admissions requirements. Students are encouraged to call for appointments; however, admissions advisors are available for walk-ins on a first-come first-served basis.

TSTC provides advising assistance for the following:

- enrollment and financial aid processes;
- career counseling, assessment, and goal-setting;
- course selection and scheduling;
- degree planning;
- referrals to counselors, faculty advisors, and other student and instructional services; and
- job search and placement assistance.

TSTC also offers a variety of courses and programs that provide new students with a comprehensive introduction to TSTC, college life, and available advising opportunities. Admissions advisors and education and career specialists can provide information relating to these courses and programs.

New Student Orientation

New Student Orientation is designed to meet the needs of new students. Students will learn about the services and resources available to be a successful college student.

To register for this course, you will need to fulfill all new student admissions requirements. Contact the College Information Office or your admissions advisor to verify your admissions status and to register for New Student Orientation.

Degree and Program Planning

Credentials

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

- Associate degree programs are designed to train technicians who work with professionals. Because technicians must be able to understand the profession and translate ideas into actual processes, the technical programs combine theory and laboratory classes with laboratory and shop experience. The curricula are usually based on mathematics and sciences. All graduates of associate degree programs show they are competent in oral communications and the use of computers by satisfactorily completing at least one course in which oral communication and basic computer skills are covered. Graduates of these

programs receive Associate of Applied Science degrees.

- Certificate programs are designed to produce the skilled workers needed by modern industry. Skill programs emphasize laboratory and shop experience, rather than theory. All graduates of certificate programs show they are competent in oral communication and the use of computers by satisfactorily completing at least one course in which oral communications and basic computer skills are covered. Graduates of these programs receive Certificates of Completion.

Institutional Awards

TSTC offers technical training in defined skill sets which can be grouped in various combinations to meet specific job requirements for business or industry. These skills training pathways are designed to allow students and/or incumbent workers to enter, exit and re-enter TSTC training while they continue to work or pursue further training. Credits earned in these pathways may be applied to a college credit Certificate of Completion and/or Associate of Applied Science degree. Completers in these training pathways receive the Marketable Skills Achievement Award or a Technical Skills Mastery Certificate.

Degree and Certificate Plans

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

Courses may be substituted if they are approved by the chairperson of the student's major field of study, and the Curriculum Coordinator and the Vice President for Student Learning. No condition guarantees that a course substitution will be approved. Each request is decided on its own merit.

Credits earned at other colleges and universities must be approved for transfer credit by the chairperson in the student's major field of study. Credit for courses in related areas may also require approval from the chairperson of that program area. Before consideration of transfer credit can begin, the student must be eligible to return to the last institution in which he or she was enrolled, official transcripts from all the institutions the student attended must be in the Office of Admissions and Records, and a grade of C or better must have been earned in the course(s).

A student is certified for graduation only when credit has been earned for all courses in the degree or certificate plan and any appropriate course substitution and/or transfer credit authorizations are on file.

Although advisors are available to assist them, students are responsible for keeping track of their progress toward meeting program requirements. Contact the faculty advisor for assistance.

Change of Major

Students who wish to change programs should meet with an advisor. Students must meet the entry requirements if specified. Students receiving financial aid should check with the Financial Aid Office before changing their major.

To change majors, students must follow these procedures.

1. Complete the change of major form, including obtaining all required signatures. Students may be required to meet additional admission criteria for the new major.
2. Return the completed form and all supporting documentation to the Office of Admissions and Records for processing.

Additional Degrees and Certificates

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

Graduation and Commencement

Graduation Requirements

Within five years of initial enrollment in credit courses at Texas State Technical College, a student may graduate with a degree or certificate according to the catalog requirements in effect at the time of first enrollment at Texas State Technical College provided the degree, certificate, the program, and requisite courses are still being offered. If a student fails to complete within five years all requirements of the catalog in effect at the time of initial enrollment, the student will be required to graduate under a catalog not older than five years. Exception to this requirement may be approved in extenuating circumstances by the Vice President for Student Learning.

To obtain a diploma, a student must apply for graduation and satisfy all financial obligations to the college. Diplomas are issued after final grades have been recorded on the student's permanent record and the student is certified as a graduate.

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

1. All TSI-related requirements are met (Associate degrees only).
2. All required course work is satisfactorily completed.
3. At least 25% of the total required credit hours are earned at the college granting the degree or certificate.
4. The student's cumulative grade point average is 2.00 or higher.
5. The student's grades in all major courses are C or better.
6. All transfer credits accepted by TSTC and applied to the degree or certificate are approved by the faculty of the program.
7. The student has no pending disciplinary issues as defined in the college student handbook.

Commencement Ceremonies

Since graduation ceremonies and receptions are generally held before graduate certification occurs, students are permitted to participate in these events only upon the recommendation by faculty. Students are required to wear the regalia designated by TSTC during commencement ceremonies.

Graduation Honors

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

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

Graduate Guarantee

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

1. The graduate must have earned the degree, certificate or award since May 1992 in a technical or occupational program or pathway published in the TSTC catalog.
2. The graduate must have earned at least 75% of the total credits of the associate degree or certificate of completion at TSTC, and must have completed the degree or certificate of completion within five years of initial enrollment.
3. The graduate must be employed full-time in an area directly related to the program concentration, as certified by the Vice President of Academic Affairs.
4. The employment must have commenced within twelve months of graduation or completion.
5. The Graduate Guarantee process must be initiated in writing to the TSTC Office of the President, by either the graduate or the employer.
6. The employer must certify in writing that the employee is lacking entry-level skills identified by TSTC as program exit competencies and must specify the areas of deficiency within 90 days of the graduate's initial employment.
7. The employer, the graduate, career counselor, and appropriate chairperson will develop a written educational plan for retraining.
8. Retraining will be limited to 12 semester credit hours related to the identified skill deficiency and to those classes regularly scheduled during the period covered by the retraining plan.
9. All retraining must be completed within one calendar year from the time the educational plan is agreed upon.
10. The graduate and/or employer will be responsible for the cost of books, insurance, uniforms, fees, and/or other course-related expenses.
11. The guarantee does not imply that the graduate will pass any licensing or qualifying examination for a particular career.

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

Curriculum

Developmental Studies

TSTC provides developmental studies for students who need assistance with basic academic skills, according to the Texas Success Initiative Plan filed with the Texas Higher Education Coordinating Board. Developmental studies services include preparation for TSI testing, diagnostic testing of students' basic skill levels, and training in the basic skills of reading, writing, and mathematics for each program's entry-level standards and other areas requested by department chairpersons.

Developmental education courses are not counted as credit toward graduation. However, they are used along with the credit courses for determining course load and satisfactory academic progress for financial aid.

Withdrawal from any developmental course may require the approval of the Vice President of Academic Affairs. Students who are taking developmental education courses required on their TSI Plan or pre-requisite issues may not drop their only developmental course without withdrawing from all courses.

The following developmental education courses are offered at TSTC.

Course	Course Title
Mathematics	
DMTH 0050	Basic Mathematics
DMTH 0100	Introductory Algebra (*DMTH 0050 or Required Placement Scores**)
DMTH 0200	Intermediate Algebra (*DMTH 0100 or Required Placement Scores**)
Reading	
READ 0050	Basic Reading Skills
READ 0100	Reading Skills I (*READ 0050 or Required Placement Scores**)
READ 0200	Reading Skills II (*READ 0100 or Required Placement Scores**)
Writing	
WRIT 0050	Basic Writing Skills
WRIT 0100	Writing Skills I (*WRIT 0050 or Required Placement Scores**)
WRIT 0200	Writing Skills II (*WRIT 0100 or Required Placement Scores**)

*(*Course Prerequisites)*

General Education Courses

TSTC has been accredited since 1971 by the Commission on Colleges of the Southern Association of Colleges and Schools. Under this accreditation, associate degree programs must contain a basic core of general education courses. This basic core must contain a minimum of 15 semester credit hours and include at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Specific core course requirements are included within each associate degree plan.

General education courses are an integral part of a student's preparation for work, and along with the technical course requirements, form the basis of a student's program of study at TSTC.

Purpose

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

1. Employers are interested in hiring technically trained graduates, who with an appropriate grounding in science (natural, behavioral, and social), mathematics, and technology, can communicate effectively, work well with others, make appropriate decisions, adapt to change, and in many cases, continue their education.
2. The general education courses provide the necessary mathematical, scientific, and communication skills required to succeed in major programs of study, in the workplace, and in life.
3. General education courses assist in developing the ability to think critically, use logical reasoning in analyzing and solving problems, and appreciate cultural diversity.
4. Many of our students need assistance in becoming prepared for college studies in the technical and the general education components of their studies.
5. The general education courses are required to meet accrediting standards of regional, state, and occupational groups requiring a broad range of knowledge when obtaining a degree or certification, and they fulfill the requirements agreed upon in articulation agreements with other colleges and universities.

General Education and Transfer

General education is an integral part of the college's programs of instruction. The general education departments strive toward delivering courses that impart common knowledge, intellectual concepts, and attitudes every person should have for career and life roles in addition to providing some of the basic competencies needed by technical students. Through establishing a common group of required and elective courses, through cognitive experiences, and through the demonstration of skills, TSTC Harlingen seeks to provide students in:

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

Humanities Electives

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

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

More Information

Anyone having any questions regarding transfer credit or special partnership agreements should contact the Curriculum Office, the Counseling Department, or the Collaborative Projects Office.

Additional courses may be accepted on transfer from other colleges. Questions on the transferability of outside courses to meet the Humanities/Fine Arts elective or the Natural Sciences/Mathematics elective requirements should be addressed to the chairs of the respective academic departments.

General Education Courses

The following is a list General Education courses offered by TSTC Harlingen:

Course	Course Title	Prerequisite(s)
Humanities/Fine Arts		
ANTH 2346	General Anthropology	
ARTS 1301	Art Appreciation	
ARTS 1303	Art History I	
ARTS 1304	Art History II	
COMM 2311*	News Gathering & Writing I	ENGL 1301
ENGL 1301*	Composition I	READ 0200/WRIT 0200 or required placement scores
ENGL 1302*	Composition II	ENGL 1301
ENGL 2314*	Technical & Business Writing I	ENGL 1301
ENGL 2321	British Literature	ENGL 1301
ENGL 2326	American Literature	ENGL 1301
ENGL 2331	World Literature	ENGL 1301
MUSI 1306	Music Appreciation	
PHIL 1301	Introduction to Philosophy	
PHIL 1304	Introduction to World Religions	
PHIL 2306	Introduction to Ethics	
SOCI 2319	Minority Studies I	
SPAN 1311*	Beginning Spanish I	
SPAN 1312*	Beginning Spanish II	SPAN 1311
SPAN 1411*	Beginning Spanish I (for non-native speakers)	Approval of instructor
SPAN 1412*	Beginning Spanish II (for non-native speakers)	SPAN 1411
SPAN 2311*	Intermediate Spanish I	SPAN 1313 or SPAN 1412 or equivalent
SPAN 2323	Introduction to Latin American Literature	SPAN 2311 or SPAN 1312
SPAN 2324	Spanish Culture	SPAN 2311 or SPAN 1312
SPCH 1311*	Introduction to Speech Communication	
SPCH 1315*	Public Speaking	
SPCH 1318*	Interpersonal Communication	
SPCH 2333*	Discussion & Small Group Communication	

* May not be used to fulfill requirements for Humanities/Fine Arts Elective in AAS degrees.

Course	Course Title	Prerequisite(s)
Math/Natural Sciences:		
BIOL 1408	Biology for Non-Science Majors I	
BIOL 1409	Biology for Non-Science Majors II	
BIOL 2401	Anatomy & Physiology I	
BIOL 2402	Anatomy & Physiology II	BIOL 2401
BIOL 2421	Microbiology for Science Majors	BIOL 2401
CHEM 1405	Introductory Chemistry I	
CHEM 1411	General Chemistry I	MATH 1314 or required placement scores
CHEM 1412	General Chemistry II	CHEM 1411
MATH 1314	College Algebra	DMTH 0200 or required placement scores
MATH 1316	Plane Trigonometry	MATH 1314
MATH 1332	Contemporary Mathematics I	DMTH 0200 or required placement scores
MATH 1350	Fundamentals of Mathematics I	DMTH 0200 or required placement scores
MATH 1351	Fundamentals of Mathematics II	MATH 1350
MATH 2312	Precalculus Math	MATH 1314
MATH 2318	Linear Algebra	MATH 1314
MATH 2320	Differential Equations	MATH 2414
MATH 2342	Elementary Statistical Methods	MATH 1314
MATH 2413	Calculus I	MATH 1316 or MATH 2312
MATH 2414	Calculus II	MATH 2413
MATH 2415	Calculus III	MATH 2414
PHYS 1401	College Physics I	MATH 1316
PHYS 1402	College Physics II	PHYS 1401
PHYS 2425	University Physics I	MATH 2413
PHYS 2426	University Physics II	PHYS 2425
Behavioral/Social Sciences:		
ECON 2301	Principles of Macroeconomics	
GOVT 2301	American Government I	READ 0200 or required placement scores
GOVT 2302	American Government II	READ 0200 or required placement scores
HIST 1301	United States History I	READ 0200 or required placement scores
HIST 1302	United States History II	READ 0200 or required placement scores
PSYC 2301	General Psychology	READ 0200 or required placement scores
PSYC 2314	Lifespan Growth & Development	READ 0200 or required placement scores
SOCI 1301	Introductory Sociology	
SOCI 1306	Social Problems	

General Education Academic Core

TSTC offers a core package of tranferable academic courses that will transfer to any college or university in the state of Texas. More information on course content and lecture and lab hours is included in the Course Descriptions section of this catalog.

Selection of courses within each category must be based upon the student's demonstrated abilities, desired major, and intentions for graduation. Not all courses are offered every semester. Additional hours may be taken beyond the minimum shown. The categories and minimum hours for the basic core are as follows:

Course	Title
English Rhetoric and Composition (6 hours)	
ENGL 1301	Composition
ENGL 1302	Composition II
Mathematics (3 hours)	
MATH 1314	College Algebra
MATH 1316	Plane Trigonometry
MATH 1332	Contemporary Mathematics
MATH 1350	Fundamentals of Math I
MATH 2312	Precalculus Math
MATH 2318	Linear Algebra
MATH 2320	Differential Equations
MATH 2342	Elementary Statistical Methods
MATH 2413	Calculus I
MATH 2414	Calculus II
MATH 2415	Calculus III
Natural Science (6 hours)	
Courses may come from different disciplines.	
BIOL 1308	General Biology I (no lab)
BIOL 1309	General Biology II (no lab)
BIOL 1406	Biology for Science Majors I
BIOL 1407	Biology for Science Majors II
BIOL 1408	Biology for Non-Science Majors I
BIOL 1409	Biology for Non-Science Majors II
BIOL 2301	Anatomy & Physiology I (no lab)
BIOL 2302	Anatomy & Physiology II (no lab)
BIOL 2401	Anatomy & Physiology I
BIOL 2402	Anatomy & Physiology II
BIOL 2421	Microbiology for Science Majors
CHEM 1405	Introductory Chemistry I
CHEM 1411	General Chemistry I
CHEM 1412	General Chemistry II
PHYS 1401	College Physics I
PHYS 1402	College Physics II
PHYS 2425	University Physics
PHYS 2426	University Physics II

Course	Title
Government and U.S. History (12 hours)	
GOVT 2301	American Government I
GOVT 2302	American Government II
HIST 1301	U.S. History I (to 1877)
HIST 1302	U.S. History II (since 1877)
Social/Behavioral Science (3 hours)	
ECON 2301	Principles of Macroeconomics
PSYC 2301	General Psychology
PSYC 2314	Life Span Growth & Development
SOCI 1301	Introductory Sociology
SOCI 1306	Social Problems
SOCI 2319	Minority Studies*
Fine Arts (3 hours)	
ARTS 1301	Art Appreciation
ARTS 1303	Art History I
ARTS 1304	Art History II
MUSI 1306	Music Appreciation
Humanities (3 hours)	
*Must include one literature course marked with an **	
ANTH 2346	General Anthropology
ENGL 2321	British Literature *
ENGL 2326	American Literature *
ENGL 2331	World Literature *
PHIL 1301	Introduction to Philosophy
PHIL 1304	Introduction to World Religions
PHIL 2306	Introduction to Ethics
SOCI 2319	Minority Studies**
SPAN 2323	Introduction to Latin American Literature *
SPAN 2324	Spanish Culture *
Speech Communication (3 hours)	
SPCH 1311	Introduction to Speech Communication
SPCH 1315	Public Speaking
SPCH 1318	Interpersonal Communication
SPCH 1321	Business and Professional Communication
SPCH 2333	Discussion & Small Group Communication
Modern Language (6 hours)	
Choose one of the following	
SPAN 1311	Beginning Spanish I
SPAN 1411	Beginning Spanish I (for Non-native Speakers)
and choose one of the following	
SPAN 1312	Beginning Spanish II
SPAN 1412	Beginning Spanish II (for Non-native Speakers)

ADN Nursing Academic Courses:

Texas State Technical College Harlingen is participating with Valley Baptist Medical Center and the University of Texas at Brownsville/Texas Southmost College (UTB/TSC) in offering academic courses for the RN Nursing program.

Students completing academic courses at TSTC Harlingen can then apply to UTB/TSC, and, upon acceptance, take the NURS courses at Valley Baptist Medical Center taught by UTB/TSC faculty.

Upon completion of the ADN program, an Associate of Applied Science Degree is awarded by UTB/TSC and the student may sit for the Registered Nurse (RN) test administered by the State Board of Nurse Examiners.

These academic courses completed at TSTC are also transferable to other Texas public universities under the common course numbering system of the Texas Higher Education Coordinating Board.

TSTC Harlingen is proud to be a participant in the Associate Degree Nursing program, which reflects the cooperation of the Texas Higher Education Coordinating Board, UTB/TSC, TSTC, Valley Baptist Medical Center, and the Rio Grande Valley community.

The following academic courses may be taken at TSTC for transfer credit to UTB/TSC for the ADN program:

Course	Title
BIOL 2401	Anatomy & Physiology I
BIOL 2402	Anatomy & Physiology II *(BIOL 2401*)*
BIOL 2421	Microbiology *(BIOL 2401*)*
PSYC 2301	General Psychology *(READ 0200 or Required Placement Scores*)*
PSYC 2314	Life Span Growth & Development (*READ 0200 or Required Placement Scores*)*
ENGL 1301	Composition I (*READ 0200 and WRIT 0200 or Required Placement Scores*)*
SPCH 1318	Interpersonal Communication
MATH 1314 or 1332	College Algebra or Contemporary Math I *(DMTH 0200 or Required Placement Scores*)*

Three hours of Humanities (ARTS, MUSI, PHIL, foreign language, or any 2000 level English).

*(*Course Prerequisites)*

Allied Health Prerequisite Courses

The following courses offered by TSTC Harlingen are prerequisite courses required for Allied Health programs offered at UTB/TSC. Developmental courses to assist students to pass the THEA are also offered.

Course	Title
HPRS 1101	Introduction to Health Professions
HPRS 1204	Basic Health Profession Skills
HPRS 1205	Medical Law/Ethics for Health Professions
HPRS 2300	Pharmacology for Health Professions
HITT 1305	Medical Terminology

Other Academic Transfer Courses

The Texas Higher Education Coordinating Board approves the following courses for academic credit. However, these courses are not part of the General Education Academic Core and will not satisfy the core requirements for graduation. Certain programs require these courses as part of their curricula, and the course may also be taken as an elective beyond requirements of the General Education Academic Core.

Course	Title
ACCT 2401	Principles of Accting I - Financial
ACCT 2402	Principles of Accting II - Managerial *(ACCT 2401*)*
BCIS 1305	Business Computer Applications
BUSI 1301	Business Principles
BUSI 2301	Business Law
COSC 1301	Microcomputer Applications
ENGR 2301	Engineering Mechanics I - Statics
ENGR 2302	Engineering Mechanics II - Dynamics *(MATH 2413*)*
ENVR 1401	Environmental Science I
TECA 1354	Child Growth and Development

*(*Course Prerequisites)*

Prerequisites and Co-requisites

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

Credit Award for Assessments and Training

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

General Rules and Regulations

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

To receive Credit Awards, students must be enrolled at TSTC and have completed a minimum of six semester credit hours of non-developmental coursework at TSTC. New students who request and meet the standards for Credit Awards will be granted credit pending completion of six non-developmental semester credit hours at TSTC.

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

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

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

Students must complete the appropriate Credit Award Request form with appropriate documentation to initiate the Credit Award process.

Payment of any fees associated with Credit Award program must be received before credit can be posted to the student's transcript.

Notes:_____

CLEP Subject Area Exams

The College Level Examination Program (or CLEP) is a series of tests offered by College Board. The tests cover a variety of subject areas including business, science and mathematics, history and social sciences, foreign languages, and composition and literature. CLEP exams are offered on most college and university campuses.

TSTC awards course credit for the following CLEP Subject Exams providing the minimum score has been obtained on the specific test. TSTC does not award credit for the CLEP General Exams. CLEP Scores are valid for ten (10) years from the test date.

CLEP Subject Test Name	Score	Minimum Credits	TSTC Course(s)
Principles of Accounting	50	6	ACCT 2301, 2302, 2401, 2402
General Biology	50	8	BIOL 1406, 1407
Introductory Business Law	50	3	BUSI 2301
General Chemistry	50	8	CHEM 1411, 1412
Principles of Macroeconomics	50	3	ECON 2301
Principles of Microeconomics	50	3	ECON 2302
English Composition with Essay	50	6	ENGL 1301, 1302
English Literature	50	6	ENGL 2322, 2323
American Literature	50	6	ENGL 2327, 2328
American Government	50	3	GOVT 2305
History of U.S. I	50	3	HIST 1301
History of U.S. II	50	3	HIST 1302
Humanities	50	6	HUMA 1301, 1302
College Algebra	50	3	MATH 1314
Trigonometry	50	3	MATH 2413
Calculus w/ Elementary Functions	50	4	MATH 2413
Pre Calculus	50	3	MATH 2312
Introductory Psychology	50	3	PSYC 2301
Human Growth and Development	50	3	PSYC 2314
Introductory Sociology	50	3	SOCI 1301
Spanish Language	50	6	SPAN 1311, 1312
Spanish Language	55	12	SPAN 1311, 1312, 2311, 2312

Advanced Placement

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

TSTC awards course credit for the following AP Exams providing the minimum score has been obtained on the specific test. AP scores are valid ten (10) years from the test date.

AP Subject Test Name	Score	Minimum Credits	TSTC Course(s)
Art, History of	3	3	ARTS 1303
Art, History of	4	6	ARTS 1303, 1304
Biology	3	4	BIOL 1406
Biology	4	8	BIOL 1406,1407
Chemistry	3	4	CHEM 1411
Chemistry	4	8	CHEM 1411, 1412

AP Subject Test Name	Score	Minimum Credits	TSTC Course(s)
Computer Science A	3	3	COSC 1301, ITSC 1302, 1307
Macroeconomics	4	3	ECON 2301
Microeconomics	4	3	ECON 2302
English Language	3	3	ENGL 1301
English Language	4	6	ENGL 1301, 1302
English Literature	3	3	ENGL 2322,
English Literature	4	6	ENGL 2322, 2323
U. S. Government & Politics	3	3	GOVT 2305
U. S. History	3	3	HIST 1301
History of U. S.	4	6	HIST 1301, 1302
Music Theory	3	3	MUSI 1306
Statistics	3	3	MATH 1342
Calculus AB	3	3	MATH 2312
Calculus AB	4	4	MATH 2413
Calculus BC	3	4	MATH 2414
Physics B	3	8	PHYS 1401, 1402
Physics C	3	8	PHYS 2425, 2426
Psychology	3	3	PSYC 2301

Credit for Military Training

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

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

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

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

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

There is a $10.00 fee charged for each transcript from DANTES.

International Baccalaureate Diploma Program (IBD)

Students who have received an International Baccalaureate Diploma (IB) may receive TSTC course credit for the following exams with scores of four (4) or higher on either standard level (SL) or higher level (HL) examinations. Students who have taken IB exams but do not have an IB diploma may receive credit for scores of five (5) or higher on higher level (HL) examinations only.

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

Credit Award for Continuing Education Units and Experiential Learning

Students who have successfully completed continuing education (CEU) courses offered by a TSTC college are eligible to apply for semester credit hour technical course credit. CEU coursework must be demonstrated to be substantially the same as the equivalent semester credit coursework. Students must sign and submit a Continuing Education Hours (CEU) Course Equivalency Evaluation form to the instructional administrator of the appropriate technical program in which the course(s) are managed.

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

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

More specific information on credit award for continuing education units and experiential learning may be obtain from the Continuing Education Office. Testing center and/or evaluation fees may apply.

Audited Courses

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

Cooperative Education

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

Individualized Instruction

Some programs of study offer individualized instruction. In these programs, students may complete course requirements without attending regularly-scheduled lecture or laboratory sessions. Students enroll in an agreed-upon number of contact hours and are awarded credit when course objectives are met. This allows students to advance through program requirements at a comfortable speed, which may be slower or faster than the more traditional approach. Students should talk with their department chairpersons about the availability of individual instruction in their programs of study.

Dual Credit Courses

High school students who have completed their sophomore year may enroll for dual credit academic and technical courses at TSTC while still in high school through the exceptional admission program. Students receive either transcripted credit for regular college credit courses or articulated credit that is based upon agreements with school districts. Contact the Dual Enrollment Office for more information.

Early College High School

Early college high schools (ECHS) are small high schools designed to allow students to earn both a high school diploma and an associate's degree or up to two years of credit toward a bachelor's degree. Early college high schools may be located on or associated with the TSTC colleges. Students attending ECHS enroll in TSTC courses as part of their high school curriculum. While similar to dual credit programs, students in ECHS are subject to additional requirements for admission and participation in classes. Contact an admissions advisor or education and career specialist at a TSTC college for more information.

Day/Evening Weekend Courses

The majority of college credit courses are taught on weekdays during the day, with selected courses offered during the evenings and/or on Saturdays. Continuing education and workforce training courses are scheduled throughout these time periods; contact the Continuing Education Office for details.

Distance Learning

TSTC offers instruction through a variety of electronic media, including videoconferencing and the Internet. Through videoconferencing labs, TSTC sends and receives classes to and from various colleges and schools. Internet classes offer students the opportunity to complete college courses using personal computers and Internet connections. Each TSTC program that offers distance learning courses has requirements specific to that department.

Distance learning courses are not self-paced. However, depending on the nature of the instructional method, students may complete course requirements as their schedules permit. Students enrolled in distance learning courses must meet deadlines, take scheduled tests, etc., but typically they do not have to be in classrooms at specific times, except when required by the instructors. Those students who take courses via the Internet complete assignments using computers and communicate with instructors through e-mail, fax, and by telephone. Some distance learning courses require proctored testing.

Admission requirements are the same as those for on-campus students. Students planning to take only distance learning courses should notify the Distance Learning Office so that appropriate information and advising can be arranged. Advising is accomplished by e-mail and telephone.

In most cases, tuition for distance learning courses is the same as on-campus courses. The Tuition and Fees section of this catalog provides more details. The cost of proctored exams, if any, is paid by the students. Students may order books and materials from the TSTC Bookstore or purchase them locally.

Enrollment

Registration

Registration dates are published in the college calendar. Returning students and new students who have completed admission procedures should contact their local TSTC campus for specific registration information.

Schedule Changes

Currently enrolled students may add courses, drop courses, or change sections before classes begin by contacting their program advisors. After classes begin, all students may change their schedules by obtaining course schedule change forms available from the Office of Admissions and Records, instructors and/or department chairs. The completed forms must be submitted to the Office of Admissions and Records by the deadline published in the TSTC college calendar. Changes are effective only when this process has been completed.

Drops and Withdrawals

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

Students who are taking developmental education courses required by their TSI plan or pre-requisite issues may drop their developmental course only after proper advisement and approval by the Vice President of Academic Affairs.

Students who concurrently drop and add the same number of credit hours in a simultaneous transaction do not incur additional charges or receive refunds. See "Refunds for Changes in Enrollment" in the Refunds section for more information.

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

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

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

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

Student Participation

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

Student Absence and Religious Holy Days

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

Articulation Agreements

Tech Prep

Tech Prep is part of a national education initiative to transform technical education. A Tech-Prep program, as defined in the Technical Education Program Guidelines of the Texas Higher Education Coordinating Board, is a cooperatively developed six-year program of study that begins in the ninth grade and leads to an associate of applied science degree from a public community or technical college. This cooperative arrangement involves business, industry, labor, and secondary and higher education. A Tech Prep Bridge is available for students who do not take the Tech-Prep program in high school. For more information, contact a high school counselor, TSTC department chair, or TSTC Tech Prep representative.

High School Articulation Agreements

TSTC has established articulation agreements with various high schools throughout the state. These agreements allow entering students to use their work in pre-determined high school courses for credit in TSTC programs. To determine if a particular high school is participating in this program, contact the high school counselor and appropriate TSTC department chairperson.

Transfer of Credit

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

Resolution of Transfer Disputes for Lower Division Courses

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

(1) If an institution of higher education does not accept course credit earned by a student at another institution of higher education, the receiving institution shall give written notice to the student and to the sending institution that transfer of the course credit is denied, and shall include in that notice the reasons for denying the credit. Attached to the written notice shall be the procedures for resolution of transfer disputes for lower-division courses as outlined in this section, accompanied by clear instructions outlining the procedure for appealing the decision to the Commissioner.

(2) A student who receives notice as specified in paragraph (1) of this subsection may dispute the denial of credit by contacting a designated official at either the sending or the receiving institution.

(3) The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with Board rules and guidelines.

(4) If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days after the date the student received written notice of denial, the sending institution may notify the Commissioner in writing of the request for transfer dispute resolution, and the institution that denies the course credit for transfer shall notify the Commissioner in writing of its denial and the reasons for the denial.

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

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

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

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

Scholastic Integrity

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

- *Cheating on academic work* includes, but is not limited to:
  - copying from another student's test paper or other academic work;
  - using materials during a test that have not been authorized by the individual giving the test;
  - collaborating with another student, without authorization, during an examination or in preparing academic work;
  - bribing another person to obtain an unadministered test;
  - knowingly using, buying, selling, stealing, transporting, or soliciting, in whole or in part, the contents of an unadministered test; and
  - substituting for another student, or permitting another student to substitute for oneself, to take a test or prepare other academic work.
- *Plagiarism* means claiming another's work as one's own without acknowledging its origin and doing so for credit.
- *Collusion* means unauthorized collaboration with another person in preparing a written work offered for credit.

Discipline for scholastic dishonesty follows the same course as other disciplinary actions, except the appropriate faculty member considers and reviews the case first. The student may appeal the faculty member's decision to the Department Chair and then to the Vice President of Academic Affairs. If the student is not satisfied with the Vice President of Academic Affairs' decision, he/she may follow the normal disciplinary appeal procedures. Students are not suspended from class or from the College until they have received due process.

Continuing Education and Corporate Workforce Training

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

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

Admission and Registration

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

Tuition and Fees

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

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

Class Records and Certificates

Students completing CEU courses receive one (1) CEU for every 10 hours of participation in a continuing education course or program. Grades of Satisfactory "S" or Unsatisfactory "U" are typically awarded in CEU classes. Other types of grades may be awarded depending on the requirements of the course sponsor. Students who successfully complete CEU courses receive a certificate certifying the number of CEUs awarded.

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

Customized Training for Business and Industry

TSTC Harlingen has a corporate college representative to respond to requests from businesses and other institutions or agencies to develop and offer specialized training for employees. Training may be provided at the college or at the sponsor's site of choice. For more information on specialized business and industry training contact Industrial Training.

Student Services

Student Housing

The College considers housing an added service for its students. Occupancy in student apartments is purely voluntary on a first-come, first-served basis. The facilities are conveniently located at the College within walking distance of classroom buildings, laboratories and recreation facilities.

Housing and cafeteria facilities are owned and operated by the College on a self-sustaining basis to offer its students room and board accommodations at the lowest possible cost.

Housing Reservations

Because facilities are limited, the prospective student should complete a campus housing application as soon as possible, at least one semester in advance of the expected enrollment date. The application must be completed and returned with a $100 deposit to the Business Office. The deposit can be made by check or money order payable to Texas State Technical College.

The deposit must be paid before the student is placed on the housing assignment list. If the student decides not to enroll or live in campus housing, the deposit will be refunded. The deposit will be retained until the student properly clears/vacates housing. Family apartments do not require a deposit until the scheduled move-in date.

Housing Assignments

Returning students have priority in housing assignments. However, they must reserve their own rooms for future occupancy at least 30 days before the end of the current semester.

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

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

Students must remain in the facilities assigned to them unless permission for change is obtained from the Housing Office. Moving without permission may result in permanent dismissal from campus housing. The Housing Office reserves the right to move students to another dorm in order to conserve energy, for

safety reasons, to conduct repairs or remodel and for other reasons that are in the best interest of the college.

Housing Regulations

Housing regulations are posted in the Housing Office. Tenants may move into their assigned apartments on the first day of regular registration only if advance rent and room deposits have been paid and the lease agreement has been signed. The tenant will terminate the lease and must vacate the dorm if he/she ceases to be a TSTC student.

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

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

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

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

Counseling and Testing Services

Counseling and testing services assist students in obtaining maximum results from their educational opportunities. Students are encouraged to make appointments; however, walk-ins are welcomed and accommodated, based on counselor availability.

Counseling services promotes positive mental health for improved personal, career, and academic growth. These services include individual and group counseling, scholastic and financial counseling, workshops, mediation, and referral to outside agencies. Information disclosed during counseling sessions is strictly confidential, except when it involves potential danger to oneself or others, child abuse, or criminal conduct.

Testing services provides TSI tests, and departmental tests. Selected TSTC colleges may offer GED testing. Other instruments are offered that provide information and guidance in academic and career areas and help in understanding personal strengths and weaknesses.

Student Activities

Social Activities

Campus life at TSTC includes a variety of social activities, such as movies, dances, parties, and other special events.

Intramural and Recreational Sports

TSTC sponsors a variety of team and individual sports throughout the year. These programs contribute to students' general education by providing experiences that are available only through sports, athletic competition, and recreation. Intramural and recreational sports help create well-balanced and happy individuals by developing physical skills, good health, mental alertness, and social well being. These programs strive to reach as many students as possible and develop permanent interests in sports and lifetime fitness. These programs include team sports, such as flag football, basketball, softball, and volleyball, as well as other activities, such as tennis, racquetball, and aerobics.

The TSTC Games include participants from TSTC Harlingen, TSTC Marshall, TSTC Waco, and TSTC West Texas. These competitions are held every year, with the Colleges serving as hosts on a rotating basis.

Student Government

The Student Government Association (SGA) is the governing body that represents students and advises the college administration on issues of student interest and concern. Each Fall, six Executive Board members are elected by the student body to serve on the SGA. Contact the Office of Student Life for more information.

Student Clubs and Organizations

Student clubs and organizations provide many opportunities for students to get involved in campus activities. Some clubs and organizations focus on particular professional fields, while others relate to more general interests, hobbies, and support services. Each club or organization must have a faculty/staff advisor and must be approved annually by the TSTC Board of Regents. Students are encouraged to visit the Student Life Office to learn more about student clubs and organizations.

Student Publications

Students who are interested in writing, photography, or journalistic projects are encouraged to become involved with the various college publications. Contact the Marketing Department for more information.

Student Identification Cards

All new college credit students are required to obtain TSTC identification (ID) cards when they register; ID cards are optional for students in continuing education and workforce training programs. Students should carry these cards at all times because they must be presented for various purposes, such as cashing checks, paying fees, and checking out library books. Misuse of ID cards may result in disciplinary action.

Learning Resource Center

The Learning Resource Center (LRC) provides print and non-print resources and services for students and faculty, including access to the Internet. Materials are selected to serve the curricular, vocational, and recreational needs of the college community. A trained staff of professional librarians is available to aid students in locating and using these materials.

Students must clear their LRC records before the end of each semester. Official transcripts are not released and registration for subsequent semesters may not be allowed until all obligations are met.

College Bookstore

The TSTC Bookstore maintains a wide selection of books and supplies required for classes and labs. The bookstore also offers an assortment of educational materials, health care products, stamps, cards, envelopes, and snacks, as well as an array of college sportswear, hats, and novelties.

Food Service

Breakfast 7:00-10:30am

Lunch 11:00am-2:00pm

Meals may be purchased individually using cash. Meal plans are also available. Please note that meals furnished under this contract are not transferable from one person to another, nor will credit (extra meal) be given for meals missed by the participant.

Student Health

Health Services

Student Health Services offers first aid, limited health care, and counseling regarding personal health needs. If you need to see a physician you will be referred to your private physician. If you do not have a physician, you will be referred to a local physician in the Harlingen area.

Fees

All students are responsible for medical fees. This includes ambulance transfer, hospital, or any medical facilities you may have to use. Doctors expect payment at time of service. If you have school or private insurance, it will help defray these medical costs by refunding a portion of them.

Immunization Vaccines

Immunization vaccines are referred to the Texas Department of Health at a minimal fee. Scheduled immunization clinics for TSTC students are offered on campus during the school year.

Health Insurance

Information on health insurance is provided in the "Student Insurance" section of this catalog.

HIV Policy and Procedures

TSTC does not discriminate against students who are HIV-positive. The College works to increase awareness and educate its students and employees about HIV infection and the AIDS virus with the express purpose of preventing infection and limiting the consequences of infection. Copies of TSTC's policy and procedures relating to HIV infection are available in the Student Nurse's Office. Additional information and referral services for testing are available in the Student Nurse's Office.

Bacterial Meningitis Notification

State law requires that information regarding bacterial meningitis be provided to new college students. Bacterial meningitis is a serious, potentially deadly disease that can progress extremely fast. It is an inflammation of the membranes that surround the brain and spinal cord and can infect the blood. The disease can be treated, but those who survive may develop severe health problems and severe disabilities. Vaccinations that are effective against 70% of the most common types of bacterial meningitis are available and should be considered by those living in close quarters and by college students aged 25 or younger. For more information, contact your health care provider, the TSTC Student Nurse's Office, the local or regional Texas Department of Health Office, or www.cdxc.gov/ncidod/dmbd.diseaseinfo.

Student Health Insurance

Students are required to adhere to stringent safety precautions and to make provisions for the cost of medical treatment in the event of an accident or emergency illness. Students in allied health and other specified technical programs are required to show proof of health insurance. Other students are required to:

1. show proof of having health insurance coverage; or
2. enroll in the TSTC student health insurance plan; or
3. be personally responsible for expenses incurred in receiving medical treatment.

The student health insurance offered for a fee at TSTC is a low-cost group plan that provides financial protection in the event of an accident or illness requiring emergency medical treatment and/or hospitalization. Students are responsible for expenses not covered by insurance. Contact the Student Nurse for more information.

Some TSTC programs require student medical health and accident insurance. Contact the program advisor for more information

Support Services Office

Services for Students with Disabilities

The Support Services Office reflects the college's commitment to meeting the special needs of individual students. This office coordinates with community assistance programs and serves as a resource for services to Special Population Students. This department also provides awareness and sensitivity training for faculty and staff regarding topics affecting special populations.

Reasonable accommodations are provided to persons with disabilities. Individuals requesting services need to identify with the Support Services Office as soon as possible. Support Services requires that all requests for accommodations be accompanied by professional assessments/reports from individuals qualified to diagnose the disability involved. Support Services Office collaborates with both college personnel and students with disabilities to develop appropriate accommodations that ensure equal access and promote accessible programs and facilities at Texas State Technical College Harlingen.

Notes:_____

Non-Traditional Services

Non-Traditional occupations for females and males are defined as "a field in which either gender comprises less than 25% of the current enrollment". Support Services assists qualifying students that are enrolled full-time in a non-traditional program of study at TSTC Harlingen with the following services: child care referrals, textbook assistance, community referrals, and sensitivity and personal developmental workshops.

Single Parent/Displaced Homemaker Services

Support Services assists Single Parents, Displaced Homemakers, and Single Expectant Mothers that are enrolled full-time in a declared program of study leading to an Associate of Applied Science Degree or a Certificate of Completion at TSTC Harlingen.

Students applying for Single Parent, Displaced Homemaker or Single Expectant Mother services must submit documentation to determine eligibility.

Qualifying Single Parents, Displaced Homemakers, and Single Expectant Mothers are eligible for the following services: child care referrals, textbook assistance, community referrals, and sensitivity and personal developmental workshops.

Textbook Assistance

Support Services assists qualifying Non-Traditional, Single Parent, and Displaced Homemaker students with Textbook Assistance. To be eligible for this service, you must meet the following guidelines:

- be enrolled full-time in a technical program of study that can be completed at TSTC Harlingen,
- complete an application for Non-Traditional, Single Parent and Displaced Homemaker services program,
- submit documentation verifying status for qualifying program.

Services are funded through the Carl D. Perkins Vocational & Applied Technology Act and are contingent upon the availability of funds during the pertinent semester and the adherence to program policies. Textbook Assistance is provided on a first-come/first -served basis.

Lending Library

Support Services offers a Lending Library that is comprised of many commonly used textbooks. The Lending Library is available for students who do not qualify for the Non-Traditional, Single Parent or Displaced Homemaker services program. The Lending Library offers books at no purchase or rental cost to students. Contact Support Services for a schedule and book availability.

For more information regarding any of the services available through the Support Services Office, please call 956.364.4520 [voice], 956.364.4526 [TDD], 1.800.852.8784, stop by the office located in the Auxiliary Services Building (A), or visit our website at www.harlingen.tstc.edu/ssservices/.

Child Care Services

The Support Services Office makes referrals to the following agencies to aid students in securing reliable child care assistance: Cameron Works Child Care Management Services (serves Cameron County residents), NINO'S Head Start Center at TSTC, TSTC Early Childhood Head Start Center, and Workforce Solutions Child Care Services (serves Starr, Hidalgo & Willacy County residents).

TSTC Support Services also assists a limited number of qualifying students with subsidized child care. Students must complete an application every semester, and selections are made based on need.

Services are contingent to meeting the qualifications for each respective child care servicing agency.

Student Transportation

Students operating motorized vehicles on campus must register those vehicles with the TSTC Police Department. TSTC traffic rules and regulations and a valid parking decal will be provided to all motorists. All TSTC Housing students who operate motor vehicles must also register their vehicles with the Housing Office.

Students with valid parking permits who bring a different vehicle onto campus must contact the TSTC Police Department to request and obtain a temporary parking permit.

Campus Security

The Student Right-to-Know and Campus Security Act (Public Law 101-542), the Crime Awareness and Campus Security Act (Public Law 102-26), the Higher Education Technical Amendments of 1991, and the Higher Education Technical Amendments of 1992 require institutions of higher education to prepare, publish, and distribute to all employees, prospective students, and students an Annual Security Report by September 1 of each year. This report contains data about specific criminal offenses that occurred on campus during the most recent calendar year and the two preceding calendar years, as well as the number of arrests for crimes occurring on campus. TSTC's Annual Security Report is available in the College Police Department.

Information provided by the State of Texas concerning registered sex offenders may be obtained through the Web site that is maintained by the TSTC Harlingen College Police Department. Additional information relating to state- or federally-mandated public information requirements is also available on that Web site.

Student Success

The Student Success Office helps students successfully complete their studies. The Student Success Office coordinates the campus-wide student retention efforts. Programs that are administered by this office include the College Success course, supplemental instruction, tutoring and mentoring initiatives, TSI academy, career exploration, learning strategy sessions, Helping a TSTC Student Succeed (HATSS) on financial aid and academic suspension, and learning communities.

Job Placement Services

TSTC Harlingen provides job placement services to all students, graduates and former students. Every effort is made to assist registered candidates as they seek full-time and part-time employment in business, industry and government. The Placement Office maintains information on employers, job listings, and salaries. The staff schedules interview sessions, hosts special career fairs for employers and coordinates communication between industry and the college.

Students are able to search for jobs, communicate directly with employers and post their resumes by registering with the Career Services Office at https://www.myinterfase.com/tstc/student. Students may register as early as their first semester.

The college places a high priority on helping graduating students find employment in their chosen field of study. The philosophy of the college is that its job is not complete when the student finishes his or her studies, but continues through assistance in securing employment. The Placement Office conducts follow-up studies which help to determine the effectiveness of education and training and overall student success.

The Placement Office is committed to equal opportunity in employment and does not discriminate on the grounds of race, color, creed, religion, national origin, sex, age or handicap. Facilities and placement services are available only to employers whose practices are consistent with this policy.

Some of the companies and government agencies which routinely employ TSTC Harlingen graduates include: Sematech, Texas Instruments, Shell Oil, Bayer Corporation, Intel, Alcoa Aluminum, 3M, American Airlines, Office of The Attorney General, Texas Workers Compensation, Chevron, Ethyl Corporation, Exxon Corporation, United Launch Alliance, Phillips Petroleum, Valley Baptist Medical Center, Motorola, Trico Industries, Southwestern Bell Telephone, Turner Collie and Braden, Zenith Corporation, Samsung, TwinStar, Eastman Kodak, Arco Chemical, Dell Computers and Southwest Research Institute.

Student Conduct and Discipline

Student Conduct

The general morale of the student body is dependent upon many factors; among these are the success of its graduates, the attitude of faculty and administration, the general behavior of individual students, and the reputation of the College. TSTC believes a primary factor in strong student morale is an overall regard for

good citizenship on the part of the student body. TSTC assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct and that they will observe these rules as a matter of training and habit.

TSTC regulations forbid gambling, the use of controlled substances and alcoholic beverages, and the appearance of anyone under the influence of any of these on the campus or when attending or participating in activities sponsored by the college. All TSTC buildings are tobacco free, with the exception of specifically-designated housing facilities.

Possession of firearms, illegal knives, and other prohibited weapons on TSTC facilities, including parking areas and publicly accessed facilities, is a violation of criminal law and TSTC policies. Persons who violate the law and these policies will be subject to serious consequences, including referral for criminal prosecution and dismissal from College.

Racial and/or sexual harassment of employees or students is not tolerated and is expressly prohibited at TSTC. Activities constituting 'hazing' are also prohibited. No person or organization may engage in, solicit, encourage, direct, aid, permit, or condone hazing, regardless of consent or acquiescence in any hazing activity.

No person or group of people acting in concert may willfully engage in disruptive activity or disrupt a lawful assembly on any campus or property of the TSTC System; further, the administration is charged with keeping the colleges free of disruptive activities and may take whatever disciplinary action is deemed necessary in instances of disruption or threat of disruption.

Students are expected to dress and groom themselves in an appropriate manner while on campus and while participating in activities sponsored by the College. Students whose conduct casts an unfavorable reflection upon the College, and thereby upon all students, are subject to disciplinary action.

Additional information on student conduct is available in the Student Handbook.

Student Discipline Procedures

Any alleged violation or flagrant disregard of TSTC rules and regulations will be brought to the attention of the Vice President of Student Development or designated student disciplinary officer who will initiate an investigation of the situation. After a complete and thorough investigation, the Vice President of Student Development or designated disciplinary officer will determine the course of action. The Vice President of Student Development or disciplinary officer's decision may be appealed through the appropriate college appeals process.

Additional information regarding policies and procedures relating to student conduct and discipline are available in the TSTC Student Handbook, which is available from the Office of Student Success.

General Information

Buildings and Facilities

TSTC Harlingen is a modern 167.8-acre campus consisting of 24 instructional facilities equipped for learning.

Students may choose a total residential life in college housing at TSTC Harlingen. Other buildings include the Student Services Building and the Student Center (Recreation, Counseling, Bookstore, Cafeteria and Student Nurse). Recreational facilities include tennis courts, softball diamonds, flag football fields, outdoor basketball courts, soccer fields and Wellness and Sports Center complete with basketball court, aerobics room, weight room, racquetball courts and locker/shower rooms.

Instructional Philosophy

TSTC trains employees for tomorrow's careers, helping to strengthen the economic competitiveness of Texas and improve the lives of its people. TSTC believes in "learning by thinking and doing." Its curriculums give students the technical knowledge, skills, and abilities they need to be successful in their chosen careers. Its faculty members are highly qualified, with years of business and industry experience in their respective fields. And its facilities and equipment provide students with significant opportunities to apply what they learn.

Industry Advisory Committees

Industry Advisory Committees are an essential component of TSTC's graduate success. Their members guide curriculum development by advising faculty on the skills, knowledge, and abilities that employees need. They help to create and equip facilities so students gain experiences that enhance their value to employers. Their on-going involvement ensures that TSTC students receive the right kind of education.

Institutional Research

Institutional research supports planning, evaluation, and improvement initiatives. Using paradigms from the social sciences and organizational and management theory, institutional research deals with a wide range of topics and issues critical to the health and advancement of the College. Institutional research collects and analyzes data; designs and implements studies dealing with students, personnel, facilities, equipment, programs, and services; develops databases suitable for longitudinal studies; and disseminates the results to be used for the betterment of TSTC and those that it serves.

Educational Foundations

Two non-profit organizations have been created for the purpose of benefiting TSTC and its students. The Rolling Plains Technical Foundation, founded in 1973, is composed of West Central Texas leaders who focus their activities on supporting TSTC West Texas. The TSTC Regents Circle, founded in 2000, includes community and business leaders from throughout Texas whose work supports all the Colleges of the TSTC System. These two foundations provide invaluable financial assistance to TSTC students, as well as to TSTC as a whole.

Release of Student Records

In compliance with the "Family Education Rights and Privacy Act of 1974" (FERPA), TSTC gives notice that the following directory information will be released upon request and with the approval of the appropriate administrator, unless the student desires to withhold it: student's name, address, email address, telephone number, major field of study, classification of coursework level, enrollment status, extracurricular participation in officially recognized activities, achievement and academic awards or honors, weight and height of members of athletic teams, dates of attendance, photographic image, and most recent previous institution attended.

Release of additional student record information not defined as "directory information" must be specifically authorized by the student. Students may prohibit the release of directory information by completing the appropriate form available at the Office of Admissions and Records during registration or prior to the official census day of the term. This request remains in effect until revoked in writing by the student. Minors (under 18 years of age) attending TSTC have the same right to the privacy of their records as adult students.

Student academic records information, other than directory information, may be released to appropriate school officials without consent of the student. A school official can be:

1. an individual employed by TSTC in an administrative, supervisory, academic, research, or support staff position (including law enforcement and health staff personnel)
2. an individual elected to the TSTC Board of Regents,
3. an individual or company employed by or under contract to TSTC to perform a special task such as an attorney, auditor, or collection agency,
4. a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

Students have the right to inspect and review their academic record. Students may petition TSTC to amend or correct any part of their academic record which is believed to be inaccurate, misleading, or in violation of the privacy or other rights of the students. When the college decides it will not amend or correct a student's record, the student has a right to a hearing to present evidence that the record is inaccurate, misleading, or in violation of the privacy or other rights of the student. Contact the Office of Admissions and Records for more information regarding FERPA and student records.

Compact with Texans

Texas State Technical College (TSTC) is a public coeducational institution of higher education offering courses of study in technical education leading to the award of Certificates and Associate of Applied Science Degrees. TSTC also provides technical education and training to business and industry, continuing education to the public, and training programs for community and state economic development. TSTC colleges are located in Harlingen, Marshall, Sweetwater, and Waco, with extension centers in Abilene, Brownwood, and Breckenridge. TSTC serves students from more than 200 counties in Texas, and TSTC graduates begin their careers in high-paying jobs across the state or continue their education at colleges and universities. TSTC graduates are highly valued by business and industry for their work ethic, knowledge, and workplace skills. Texas State Technical Colleges are fully accredited by the Southern Association of Colleges and Schools.

TSTC's Vision

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

TSTC's Values

Excellence	Achieving the highest quality in all we do
Leadership	Developing visions and strategies for a desired future, and aligning and energizing people to achieve those visions
Innovation	Creating and implementing new ideas and methods
Collaboration	Working cooperatively with other organizations and within our own system.
Responsiveness	Providing appropriate programs and services in a proactive, flexible, and timely manner
Accountability	Measuring our performance and using the results for improvement
Stewardship	Ensuring our programs and services add value to our students and communities throughout the state, and operate in accordance with the public trust for which we are responsible

TSTC's Customer Service Goal

It is the goal of Texas State Technical College faculty and staff to provide a level of customer service that is beyond expectation. We pledge to be . . .

Friendly	to all we meet in our work,
Helpful	in all that we do,
Courteous	in all of our dealings,
Responsive	to customers' needs, and
Accountable	for our actions.

We will deliver the highest quality services possible with the highest regard for honesty, integrity, and ethical behavior.

For more information, please call or write to:

Texas State Technical College Harlingen
1902 North Loop 499
Harlingen, Texas 78550
1.800.852.8784
956.364.4000
www.harlingen.tstc.edu

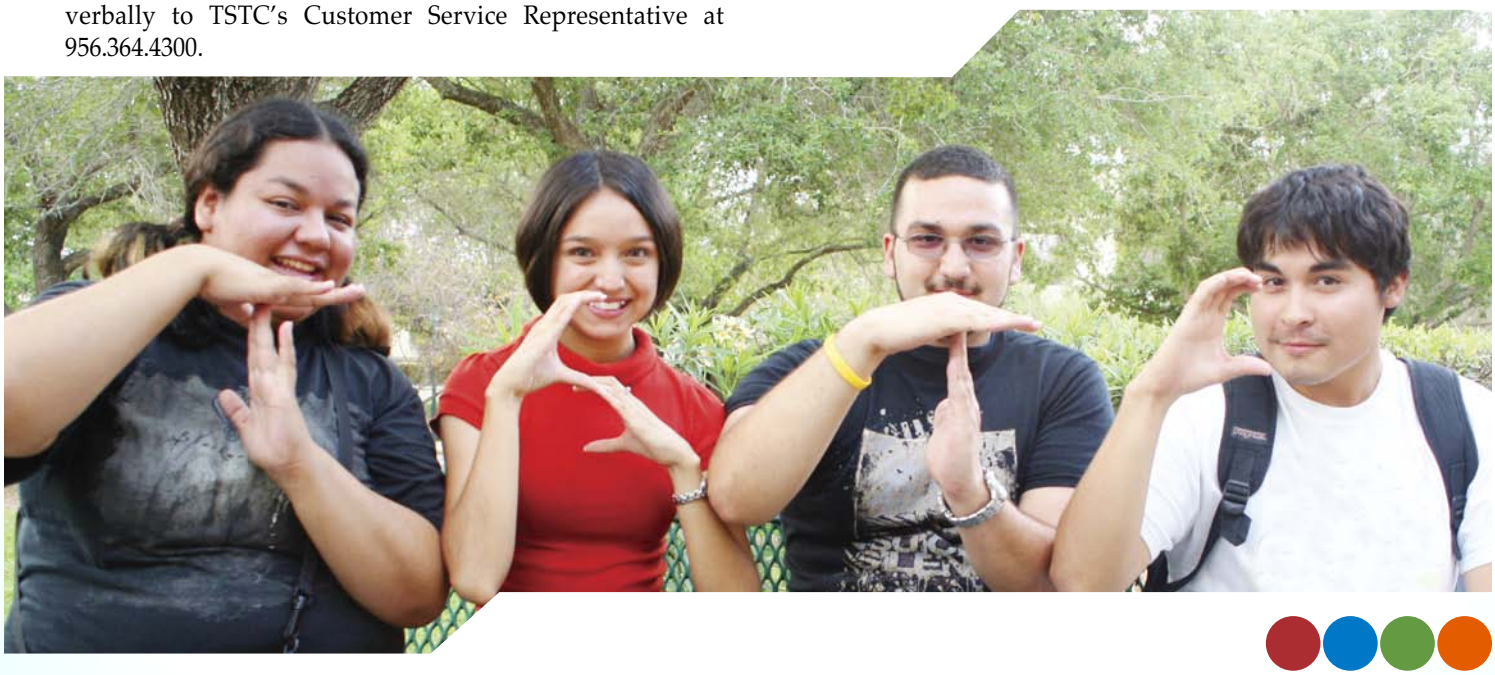
TSTC's Formal Written Complaint Handling Procedure

Most questions or complaints can be addressed through routine college channels. If additional assistance is needed, you are encouraged to file a formal written complaint. TSTC is committed to your satisfaction. The Customer Service Representative for our college is Catherine Maples, Vice President for Student Development.

1. Submit your complaint in writing by filling out the Effective Customer Relations form. This form may be downloaded at www.harlingen.tstc.edu. Alternatively, you may communicate verbally to TSTC's Customer Service Representative at 956.364.4300.
2. The TSTC Customer Service Representative will acknowledge your complaint and let you know the matter is receiving attention. You will be notified in writing within five working days of receiving the complaint as to the length of time it will take to resolve the issue.
3. The TSTC Customer Service Representative will investigate the complaint.
4. A solution that is consistent with TSTC policies, as well as applicable local, state, and federal laws, will be proposed to you in writing in the time frame specified in step 2.
5. You will be contacted by the Customer Service Representative within ten days of the written response to determine your satisfaction with the proposed solution and to be sure that the provisions of the solution have been implemented.
6. If you are not satisfied with the proposed solution, you may request that your complaint be considered by a Dispute Resolution Committee appointed by the college president. This committee will review all available documentation and render a decision as to the resolution of the complaint. All decisions of the committee are final and are not open to further review.

Texas Higher Education Coordinating Board Complaint Procedure

Students have the right to complain to the Texas Higher Education Coordinating Board regarding the institution's management of Title IV, HEAF (Higher Education Assistance Fund) programs, or its advertising or promotion of its educational programs. Complaints regarding the institution must be made in writing to: Texas Higher Education Coordinating Board, P.O. Box 12788, Austin, TX 78711.



ASSOCIATE OF APPLIED SCIENCE DEGREE

ASSOCIATE OF SCIENCE DEGREE

CERTIFICATE OF COMPLETION

FIELD OF STUDY

TSTC
Texas State Technical College™

Associate of Applied Science Degree Programs

General Information

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

The key concept in technical programs is "applied science." Students learn theories of related technical and scientific fields then apply those theories in hands-on laboratories and fieldwork. Most lab and fieldwork relates directly to skills that graduates can apply to entry-level jobs. The majority of courses required are in the major program field, and they equip the student with specific abilities needed in that career field.

The general education core accounts for a minimum of 15 semester credit hours of the associate degree curriculum. This core is designed to provide students a general education in the humanities and fine arts, social and behavioral sciences, and mathematics and natural sciences. From this, students develop the understanding, attitudes and values that are necessary for effective, responsible and productive living in today's society. The remainder of the courses are in the major program or support programs.

Most programs of study include cooperative education courses. Students generally alternate attendance at TSTC with one or more periods of employment in a business- or industry-related field of study.

General Requirements

The following information outlines the requirements for an Associate of Applied Science degree. Additional information can be found in the Admissions and Records and the Scholastic Regulations sections of this catalog.

1. Complete admission requirements.
2. Complete curriculum requirements.
   a. The student must complete the minimum credit hours as specified for the program of study. Requirements are listed with the program of study descriptions in this catalog.
   b. The student must complete a minimum of 15 semester hours of general education courses. These include:
      - ENGL 1301
      - a SPCH course
      - a math or natural science course
      - a social or behavioral science course
      - a humanities or fine arts course
      - any courses specified by the student's major program (these will be listed with the program of study descriptions in this catalog)
      - any remaining general education hours may be satisfied by taking elective courses in the humanities and fine arts, social and behavioral sciences or mathematics and natural sciences.
3. Students must meet all scholastic guidelines and specific program requirements. Additional information is included in the Scholastic Regulations section of this catalog. Some programs of study have specific requirements. More information is listed in the respective program of study description.
4. Discharge all financial obligations to TSTC.
5. Complete an Application for Graduation and payment of graduation fees.

General Education

TSTC offers general education and developmental courses approved by the Texas Higher Education Coordinating Board to support students seeking the Associate of Applied Science degree. More information on course content and lecture and lab hours is included in the Course Descriptions section of this catalog. Course credit for all general education courses are given in semester hours to facilitate transferability under the common college numbering system

Student Success

TSTC Harlingen, given the parameters of our resources, is committed to providing students with opportunities to assist them in achieving their personal-social, educational and career goals. To this end, the Student Success Office exists to enhance the probability of students successfully completing their goals. This is accomplished by collaborating with other departments to identify impediments, recommend specific programs and services, refer students to established offices and evaluate the college's retention efforts. The primary responsibilities of this office include:

- Recognition of students achieving academic excellence through the President's and Vice President's Honor Rolls.
- Development and implementation of a student success course (HRPO 1311)
- Development and implementation of supplemental instruction programs and traditional, as well as on-line, tutorial resources.
- Development and implementation of a peer-mentoring program.
- Development and implementation of a strategic learning/ mentoring program for students on academic and financial aid suspension.
- Development and implementation of a learning strategies program, which include sessions on multiple intelligence, learning styles, time management, essentials of note-taking, techniques for reading textbooks, critical thinking, and other resources for classroom success.
- Development and implementation of career exploration program for non-technical program students
- Coordination of Learning Communities.
- Seminars and workshops on faculty development for student success.
- Monitoring the college's retention goals.

Student Success Course (HRPO 1311)

The student success course (HRPO 1311 - Human Relations) was instituted in all technical program degree plans because of the success similar courses have had in assisting students to persist and complete their programs in a timely manner. The course addresses two major themes of student development. The first is the ability for students to adjust to college life and, thus, equip them with knowledge and skills for continued life-long learning. The second is the importance of students to apply and learn the appropriate computer skills to demonstrate how life-long learning is an ongoing part of one's development, especially in this rapidly changing technology and information age.

Since TSTC's mission is directed toward providing the state of Texas with a competent workforce in the varied areas of traditional and emerging technologies, an introduction to the benefits of technical education is an underlying assumption of the HRPO 1311 course. In keeping with the college's mission, HRPO 1311 is already available to technical program students as a result of their degree plan requirements. In addition, to extend the college's commitment to promoting the benefits of technical education to students and assisting with successful completion of student goals, those students seeking transfer to another college, or who are undecided, and registered for at least one developmental studies course because of non-completion of the Texas State Initiative (TSI) will be required to take the HRPO 1311 course preferably in their first semester of enrollment. Non-technical program students (see note below) may be exempt from HRPO 1311 for any one of the following reasons:

- Student is enrolled for 6 or less college credit hours.
- Student is classified as a non-degree/certificate student.

Transfer credit may be given for HRPO 1311 if the submitted course(s) meet the course description listed under Behavioral/Social Sciences.

Note: Non-technical program students who later declare a technical program will be required to take HRPO 1311.

Notes:

Agricultural Technology

Agriculture, Food & Natural Resources

Agricultural professionals, including farmers and ranchers, must be highly knowledgeable in all aspects of agricultural operations, including business and finance, to be successful in today's global agricultural economy.

The successful farmer will continue to be a key person in the U.S. economy, with the advantages of outdoor living and working independently that few people are privileged to enjoy. The agriculture industry requires skilled managers and workers in its many areas, such as farms, ranches, feed services, and government agencies. In this program, students will learn modern techniques essential to profitable operation.

In this program, students will learn to:

- Process and handle livestock using up-to-date equipment and livestock holding facilities
- Plant, cultivate and harvest crops, such as cotton, grain, corn and vegetables
- Operate farm implements
- Supervise agricultural operations

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
AGAH 1401	Animal Science †	4
AGMG 1300	Agricultural Policies, Safety & Codes †	3
BIOL 1408	General Biology I	4
HRPO 1311	Human Relations †	3
	Total Hours	**14**
Semester 2		
AGAH 1347	Animal Reproduction I	3
AGAH 2413	Principles of Feeds & Feeding	4
AGCR 1403	Crop Science	4
ENGL 1301	Composition I †	3
	Behavioral/Social Science Elective	3
	Total Hours	**17**
Semester 3		
AGCR 2305	Entomology	3
AGCR 2313	Soil & Water Conservation Management	3
AGMG 1318	Introduction to Agricultural Economics	3
SPCH 1318	Interpersonal Communications*	3
	Humanities/Fine Arts Elective	3
	Total Hours	**15**
Semester 4		
BIOL 1409	General Biology II	4
CHEM 1405	Introductory Chemistry I ***	4
EPCT 1211	Introduction to Environmental Science	2
TECM 1303	Technical Mathematics (or MATH 1314)	3
	Total Hours	**13**
Semester 5		
ACCT 2401	Principles of Accounting I - Financial	4
AGMG 1311	Introduction to Agribusiness	3
AGMG 1344	Agricultural Records Management°**	3
AGMG 2312	Marketing of Agricultural Products	3
	Total Hours	**13**
	GRAND TOTAL	**72**

° This course is designated as the capstone course.

*** AGMG 2382 or AGMG 2682 (Co-op) may be taken in place of AGMG 1344.*

† Courses articulated with high school

**SPCH 1311 or SPCH 2333 may be taken in place of SPCH 1318.*

****CHEM 1411 may be taken in place of CHEM 1405.*

Notes:_____

Air Conditioning and Refrigeration Technology

Employment in the field of air conditioning and refrigeration technology is expected to increase as more homes and commercial and industrial buildings are built. Installations of energy saving heating and air conditioning systems in older homes and buildings will also contribute to an increase in employment. This field offers a wide variety of career opportunities dealing with the technology of refrigeration, air conditioning and heating techniques in homes, work environments, transportation, food preservation and health.

Course topics include:

- Applied electricity and electronics
- Basic drafting
- Design and control systems
- Air movement and balancing

Admissions Requirements

In addition to admissions requirements listed under the Admissions Information, it is recommended that the student have completed two units of high school math, including one unit of algebra and one unit of high school science, preferably physical science.

COURSE NAME		CREDIT HOURS
Semester 1		
HART 1371	Air Conditioning Safety & Installation	3
HART 1401	Basic Electricity for HVAC †	4
HART 1407	Refrigeration Principles †	4
HRPO 1311	Human Relations †	3
	Total Hours	**14**
Semester 2		
HART 1300	Duct Design and Fabrication	3
HART 1441	Residential Air Conditioning	4
MAIR 1449	Refrigerators, Freezers, Window Air Conditioners	4
	Humanities/Fine Arts Elective	3
	Total Hours	**14**
Semester 3		
DFTG 1313	Drafting for Specific Occupations	3
HART 1403	Air Conditioning Control Principles	4
HART 2442	Commercial Refrigeration	4
	Math/Natural Science Elective †	3
	Total Hours	**14**
Semester 4		
ENGL 1301	Composition I	3
HART 1445	Gas & Electric Heating	4
HART 2438	Air Conditioning Installation & Startup ** ‡	4
HART 2441	Commercial Air Conditioning	4
	Total Hours	**15**
Semester 5		
HART 2436	Air Conditioning Troubleshooting °	4
HART 2445	Residential Air Conditioning Systems Design	4
	Behavioral/Social Science Elective	3
SPCH	Speech Elective	3
	Total Hours	**14**
	GRAND TOTAL	**71**

° This course is designated as the capstone course.

*** HART 2380, HART 2381 or HART 2680 (Co-op) may be taken in place of HART 2438.*

† High school articulated courses.

‡ Courses with external experience.

Notes:_____

Auto Collision Technology

Transportation, Distribution & Logistics

Advances in the auto body repair industry reflect the complexity and sophistication of today's automobile. The auto collision technician is a professional who artistically blends technical skills with advanced practical knowledge to repair automobiles to pre-accident condition. With the high cost of automobiles today, restoration to pre-accident safety and value is very important. The Auto Collision department is modeled after top repair shops in the industry and meets the standards for National Institute for Automotive Service Excellence certification in non-structural analysis and damage repair, structural analysis and damage repair, plastics and adhesives, and painting and refinishing.

In this program, students will learn to:

- Perform major collision repairs
- Gauge and measure
- Repair plastic and fiberglass
- Apply learned skills in the laboratory

All Auto Collision Technology students are required to take a comprehensive departmental exam during the last semester of instruction.

Admissions Requirements

Students must complete the admissions requirements as listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
ABDR 1331	Basic Refinishing †	3
ABDR 1349	Automotive Plastic & Sheet Molded Compound Repair	3
ABDR 1419	Basic Metal Repair †	4
HRPO 1311	Human Relations †	3
	Total Hours	**13**
Semester 2		
ABDR 1207	Auto Body Welding	2
ABDR 1458	Intermediate Refinishing †	4
ABDR 2449	Advanced Refinishing †	4
MATH 1332	Contemporary Mathematics (or MATH 1314) †	3
	Total Hours	**13**
Semester 3		
ABDR 1311	Vehicle Measurement & Damage Repair Procedures	3
ABDR 1441	Structural Analysis & Damage Repair I	4
ABDR 2353	Color Analysis & Paint Matching	3
ENGL 1301	Composition I †	3
	Behavioral/Social Science Elective	3
	Total Hours	**16**
Semester 4		
ABDR 1442	Structural Analysis & Damage Repair II	4
ABDR 1455	Minor Metal Repair ‡	4
ABDR 2345	Vehicle Safety Systems	3
ABDR 2370	Collision Damage Analysis & Reporting Systems	3
SPCH	Speech Elective †	3
	Total Hours	**17**
Semester 5		
ABDR 2257	Collision Repair Shop Management	2
ABDR 2431	Structural Analysis & Damage Repair III	4
ABDR 2441	Major Collision Repair & Panel Replacement º**	4
	Humanities/Fine Arts Elective	3
	Total Hours	**13**
	GRAND TOTAL	**72**

º This course has been designated as a capstone course
† High School Articulated Courses
‡ Courses with external learning experience
*** ABDR 2380 or ABDR 2680 (Co-op) may be taken in place of the capstone course*

Notes:_____

Automotive Technology

The AAS Degree in Automotive Technology provides students a comprehensive theory, web-based, and hands on training experience to serve industry demand. Students will learn to service all automotive systems including Advanced Diesel Engine Performance. Academic credits may be applied to any other public college or university in Texas. The curriculum was designed based on advisory, curriculum, and departmental recommendations focused on enhancing student's critical thinking and problem solving skills.

In this program, through active learning, the student will:

- Diagnose, service and repair all automotive systems including diesel fuels
- Exercise critical thinking problem solving diagnostic skills

Sytems include:

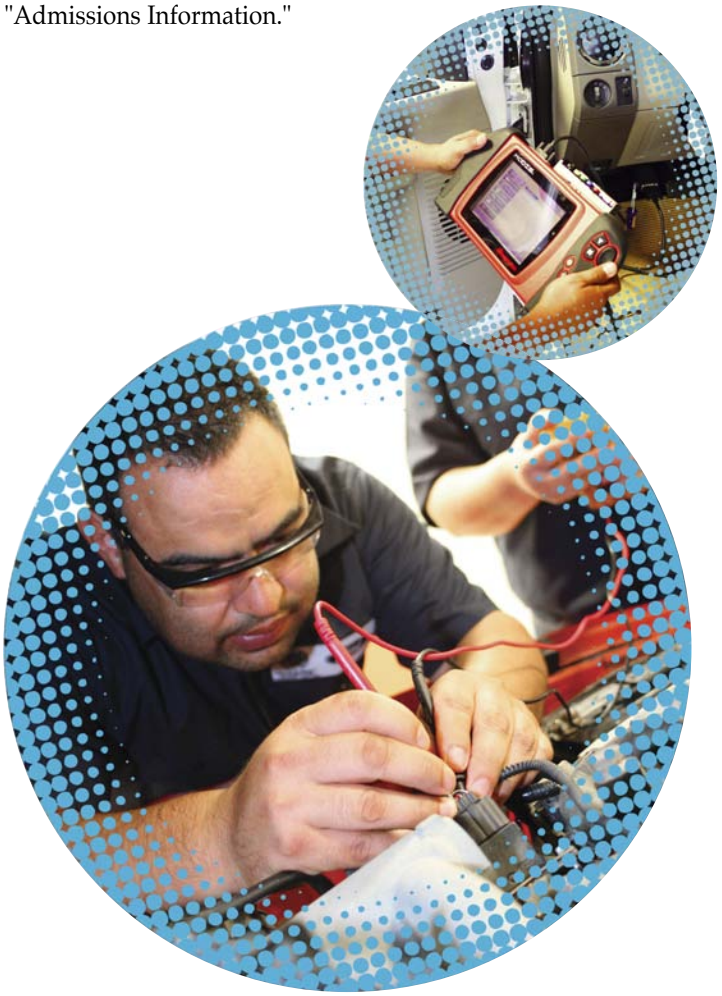
Electrical/Electronics, Engine Performance, Transmissions, Suspension and Steering, ABS Brakes, Engines, & Air Conditioning

Additional Subjects:

Shop Management, ASE Certification and Workplace Soft Skills.

Admissions Requirements:

Students must complete the admissions requirements listed under "Admissions Information."



COURSE NAME		CREDIT HOURS
Semester 1		
AUMT 1201	Introduction & Theory of Automotive Technology †	2
AUMT 1407	Automotive Electrical Systems †	4
AUMT 1416	Automotive Suspension & Steering Systems †	4
HRPO 1311	Human Relations †	3
	Total Hours	**13**
Semester 2		
AUMT 1410	Automotive Brake Systems †	4
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
AUMT 1445	Automotive Heating & Air Conditioning	4
	Total Hours	**14**
Semester 3		
AUMT 2417	Automotive Engine Performance Analysis I †	4
AUMT 2421	Automotive Electrical Lighting & Accessories	4
AUMT 1419	Automotive Engine Repair Analysis II †	4
	Total Hours	**12**
Semester 4		
AUMT 2270	Automotive Technician Certification Standards	2
AUMT 2413	Automotive Drive Train & Axles	4
AUMT 2425	Automotive Automatic Transmission & Transaxle	4
AUMT 2434	Automotive Engine Performance Analysis II	4
	Total Hours	**14**
Semester 5		
AUMT 2301	Automotive Management° **	3
DEMR 2434	Advanced Diesel Tune-Up and Troubleshooting	4
SPCH	Speech Elective †	3
	Humanities/Fine Arts Elective †	3
	Social/Behavioral Sciences Elective †	3
	Total Hours	**16**
	GRAND TOTAL	**69**

° This course has been designated as a capstone experience
† High School Articulated Courses
‡ Courses with external experience
*** AUMT 1380 or AUMT 2680 (Co-Op) may be taken in place of the capstone course.*

Notes:_____

Aviation Maintenance Technology

Transportation, Distribution & Logistics

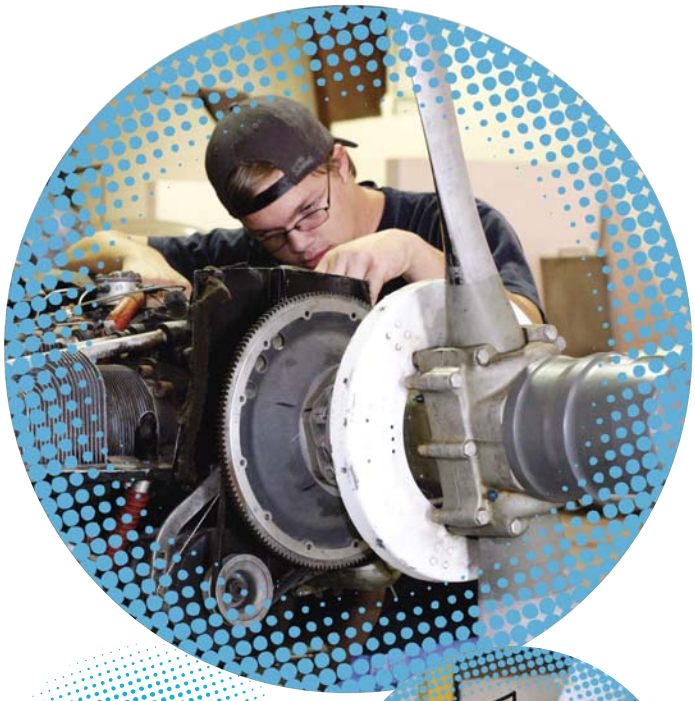
Aviation maintenance technicians are a vital part of the aerospace industry workforce, a group comprised of airframe and power plant technicians, aircraft technicians, sheet-metal workers and aircraft electricians. These skilled workers are employed by aircraft manufacturers, contract maintenance operations, corporate aviation operations, general aviation operations and regional and major airlines. In the last several years, the aerospace industry in Texas has expanded through contract maintenance and is expected to continue to grow.

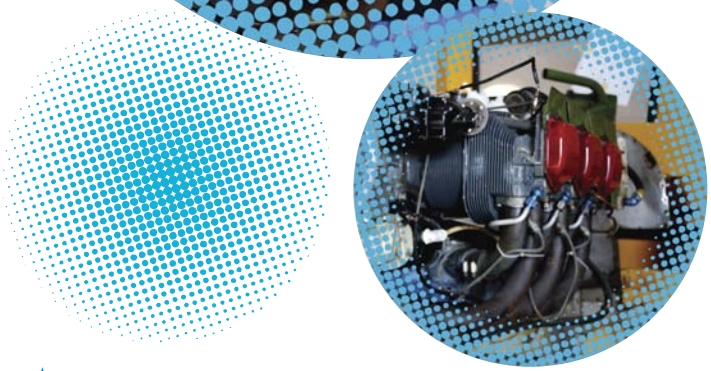
Students successfully completing the course(s) of study of the Aviation Maintenance Technology program are eligible to take the Aviation Maintenance Technicians licensing examination administered by the Federal Aviation Administration.

Admissions Requirements

Students must complete admissions requirements listed under the "Admissions Information."

TSTC is certified by the Federal Aviation Administration as an Aviation Maintenance Training Facility under Part 147 of the Federal Aviation Regulations. To meet FAA requirements, students must complete all aviation maintenance courses with a minimum numerical average of 70 in each course and attend a required number of hours in each course.





COURSE NAME		CREDIT HOURS
Semester 1		
AERM 1203	Shop Practices †	2
AERM 1205	Weight & Balance †	2
AERM 1208	Federal Aviation Regulations	2
AERM 1210	Ground Operations †	2
AERM 1314	Basic Electricity †	3
AERM 1315	Aviation Science †	3
	Total Hours	**14**
Semester 2		
AERM 1240	Aircraft Propellers	2
AERM 1357	Fuel Metering & Induction Systems	3
AERM 1456	Aircraft Powerplant Electrical	4
AERM 2341	Power Plant & Auxiliary Power Units	3
HRPO 1311	Human Relations †	3
	Total Hours	**15**
Semester 3		
AERM 1344	Aircraft Reciprocating Engines	3
AERM 1351	Aircraft Turbine Engine Theory	3
ENGL 1301	Composition I †	3
MATH 1314	College Algebra (or MATH-1332) †	3
	Behavioral/Social Science Elective †	3
	Total Hours	**15**
Semester 4		
AERM 1241	Wood, Fabric and Finishes †	2
AERM 1243	Instruments & Navigation/ Communication	2
AERM 1247	Airframe Auxiliary Systems	2
AERM 1253	Aircraft Welding	2
AERM 1254	Aircraft Composites †	2
	Humanities/Fine Arts Elective †	3
	Total Hours	**13**
Semester 5		
AERM 1345	Airframe Electrical Systems	3
AERM 1349	Hydraulic, Pneumatic & Fuel Systems	3
AERM 1350	Landing Gear Systems	3
AERM 2233	Assembly & Rigging	2
SPCH	Speech Elective †	3
	Total Hours	**14**
	AAS TOTAL	**71**
Enhanced Skills Certificate*		
AERM 1352	Aircraft Sheet Metal	3
AERM 2231	Airframe Inspection °	2
AERM 2351	Aircraft Turbine Engine Overhaul	3
AERM 2352	Aircraft Powerplant Inspection	3
AERM 2447	Aircraft Reciprocating Engine Overhaul	4
	Total Hours	**15**
	GRAND TOTAL	**86**

° This course has been designated as a capstone experience.

† High school articulated course.

** Enhanced Skills courses are required for an AAS in Aviation Maintenance Technology and may be taken concurrently with degree or certificate courses. To complete FAA requirements for Airframe licensing exams, the Enhanced Skills Certificate must be taken.*

*** AERM 2380, AERM 2381 or AERM 2680, Co-op, may be taken as an additional course to enhance the overall objectives of the program.*

Biomedical Equipment Technology

Due to the increase in medical knowledge, the dependence on technology has also increased because advances in medicine are directly linked to advances in technology. The increasing use of medical electronic devices and other sophisticated biomedical equipment has created a great demand for skilled and industry-qualified equipment technicians. The Biomedical Engineering Technology Program offers extensive hands-on training with medical equipment. Biomedical equipment technicians are responsible for maintaining safe and effective operating equipment used to diagnose, prevent and treat disease and illness.

Admissions Requirements

In addition to admissions requirements listed under "Admissions Information," high school courses in algebra, trigonometry, biology, physics, chemistry or physiology are helpful in preparing for this program.

Internship/Co-op Entry Requirements

Before enrolling in internship or cooperative study, a student must have on file with the department the following materials:

1. Proof of tuberculosis test.
2. Proof of liability insurance of at least $1 million, health and accident insurance and needlestick insurance (available through TSTC).

All BET students have the opportunity to take the comprehensive exam to prepare them for becoming a Certified BioMedical Equipment Technician (CBET). The comprehensive exam will cover the following subject areas: electronic fundamentals, circuit analysis and troubleshooting, safety for health care facilities, medical equipment applications, and anatomy and physiology.

Science, Technology, Engineering & Mathematics

COURSE NAME		CREDIT HOURS
Semester 1		
BIOM 1201	Biomedical Equipment Technology†	2
RBTC 1305	Robotics Fundamentals	3
CETT 1303	DC Circuits †	3
HRPO 1311	Human Relations†	3
MATH 1314	College Algebra† (or MATH 2312)	3
BIOM 1205	Soldering Skills and Shop Safety	2
	Total Hours	**16**
Semester 2		
BIOM 1309	Application Biomedical Equipment Technology (OR BIOL 2401)	3
CETT 1305	AC Circuits †	3
CETT 1325	Digital Fundamentals	3
INTC 1357	AC/DC Motor Controls	3
	Total Hours	**12**
Semester 3		
BIOM 2301	Safety in Health Care Facilities	3
ELMT 1301	Programmable Logic Controls	3
ELMT 1305	Basic Fluid Power	3
ELMT 2333	Industrial Electronics	3
	Total Hours	**12**
Semester 4		
BIOM 1355	Medical Electronic Applications	3
BIOM 2335	Physiological Instruments I	3
BIOM 2288	Internship: Biomedical Technology/Technician**	2
PSYC 2301	General Psychology †	3
	Humanities/Fine Arts Elective †	3
	Total Hours	**14**
Semester 5		
BIOM 1341	Medical Circuits/Troubleshooting	3
BIOM 2249	Basic X-Ray & Medical Imaging Systems	3
BIOM 2343	General Medical Equipment II	3
ENGL 1301	Composition I †	3
SPCH	Speech Elective †	3
	Total Hours	**15**
Semester 6		
BIOM 2380	Cooperative Education – Biomedical Technology/Technician **	3
	Total Hours	**3**
	GRAND TOTAL	**72**

*** BIOM 2380, BIOM 2480, or BIOM 2680 (Co-op) may be taken in place of BIOM 2288 or BIOM 2289*

° Course designated as capstone course.

† High School articulated course.

Notes:_____

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Building Construction Technology

Anticipated growth in business investment for new factories, office buildings, stores, hotels, power plants and other structures should continue to stimulate the demand for workers in the building construction field. Maintenance and repair work on all types of structures will also contribute to this demand. Workers in the field build, repair, and modernize all types of buildings, including homes, offices and commercial structures.

In this program, students will learn to:

- Prepare building sites, construct foundations and structures
- Frame and finish various building systems
- Estimate cost and inspect construction jobs
- Supervise other construction workers

Admissions Requirements

In addition to admissions requirements listed under "Admissions Information," it is recommended students complete two units of high school mathematics, preferably one unit of algebra and one unit of geometry.

COURSE NAME		CREDIT HOURS
Semester 1		
CNBT 1416	Construction Technology I	4
DFTG 1325	Blueprint Reading and Sketching	3
OSHT 1405	OSHA Regulations - Construction Industry	4
HRPO 1311	Human Relations †	3
	Total Hours	**14**
Semester 2		
CNBT 1449	Concrete - Commercial and Industrial	4
CRPT 1315	Conventional Wall Systems	3
CRPT 1323	Floor Systems †	3
MATH 1332	Contemporary Mathematics I † (or MATH-1314)	3
	Total Hours	**13**
Semester 3		
CRPT 1341	Conventional Exterior Finish Systems **	3
CRPT 1345	Conventional Interior Finish Systems	3
CRPT 1411	Conventional Roof Systems	4
ENGL 1301	Composition I †	3
	Total Hours	**13**
Semester 4		
CNBT 1346	Construction Estimating I	3
WDWK 1413	Cabinet Making	4
	Humanities/Fine Arts Elective	3
	Behavioral/Social Science Elective	3
	Total Hours	**13**
Semester 5		
CNBT 1342	Building Codes & Inspections ° ‡	3
CNBT 2437	Construction Estimating II	4
CNBT 2310	Commercial and Industrial Blue Print Reading	3
SPCH	Speech Elective †	3
	Total Hours	**13**
	GRAND TOTAL	**66**

° This course has been designated as a capstone course.

*** CNBT 2380 or CNBT 2680 (Co-op) may be taken in place of CRPT 1341.*

† High School Articulated Courses.

‡ Course with external experience.

Notes:_____

Business/Office Technology
Office Administration

This program prepares individuals to support business information operations by using computer equipment to enter, process, and retrieve data for administrative purposes and includes instruction in using basic business software and hardware; business computer networking; principles of desktop publishing; preparing mass mailings; compiling and editing spreadsheets; list maintenance; preparing tables and graphs; receipt control; and preparing business performance reports.

Graduates of this program qualify for employment in a wide range of areas such as Office Manager, Computer Operator, Help Desk Staff, and Executive Secretary.

Admissions Requirements

Students must complete admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
ACNT 1303	Introduction to Accounting I †	3
ITSC 1309	Integrated Software Applications I †	3
POFT 1329	Beginning Keyboarding	3
CPMT 1303	Introduction to Computer Technology †	3
HRPO 1311	Human Relations †	3
	Total Hours	**15**
Semester 2		
POFI 1349	Spreadsheets †	3
POFI 2301	Word Processing †	3
CPMT 1304	Microcomputer System Software	3
POFT 1319	Records and Information Management	3
	Approved Technical Elective*	3
	Total Hours	**15**
Semester 3		
ITSW 1307	Introduction to Database	3
ITSW 1310	Introduction to Presentation Graphics Software †	3
POFT 1301	Business English †	3
POFT 1309	Administrative Office Procedures I †	3
	Total Hours	**12**
Semester 4		
MRKG 1301	Customer Relations	3
POFI 2331	Desktop Publishing for the Office †	3
ENGL 1301	Composition I †	3
XXXX X3XX	Humanities/Fine Arts Elective †	3
MATH 1314	College Algebra (or MATH 1332) †	3
	Total	**15**
Semester 5		
BMGT 1327	Principles of Management †	3
HRPO 2301	Human Resources Management	3
	Social/Behavioral Science Elective †	3
SPCH	Speech Elective †	3
POFT 2331	Administrative Systems †	3
	Total Hours	**15**
	GRAND TOTAL	**72**

° This course has been designated as a capstone course.
† High School articulated courses.
**Approved Technical Electives: POFT 1321, ITSE 1331, ITNW 1325, HITT 1305, POFL 1305*

Notes:_____

Chemical-Environmental Technology

The demand for chemical/environmental technicians is expected to rise due to an anticipated growth in scientific research and development and production of technical products. Chemical/environmental technicians are employed in research, testing and quality control of a wide range of products, including petroleum, plastics, pharmaceuticals and semi-conductors.

In this program, students will learn to:

- Analyze various materials using standard procedures and instrumental procedures
- Calculate and report chemical analyses
- Use computerized testing procedures, such as atomic absorption, gas chromatography, infrared and mass spectroscopy

Admissions Requirements

In addition to admissions requirements listed under "Admissions Information," completion of one unit of high school algebra and chemistry is recommended.

Science, Technology, Engineering & Mathematics

COURSE NAME		CREDIT HOURS
Semester 1		
CTEC 1205	Chemical Calculations I	2
EPCT 1211	Intro. to Environmental Science (or ENVR 1401) ‡	2
HRPO 1311	Human Relations †	3
SCIT 1414	Applied General Chemistry I †	4
	Total Hours	**11**
Semester 2		
CTEC 1206	Chemical Calculations II	2
EPCT 1344	Environmental Sampling & Analysis ‡	3
MATH 1314	College Algebra †	3
SCIT 1415	Applied General Chemistry II	4
	Total Hours	**12**
Semester 3		
ENGL 1301	Composition I †	3
SCIT 1543	Applied Analytical Chemistry I ‡	5
SCIT 2401	Applied Organic Chemistry I	4
	Humanities/Fine Arts Elective †	3
	Total Hours	**15**
Semester 4		
CTEC 1441	Applied Instrumentation Analysis I	4
CTEC 2441	Polymers I	4
CTEC 2445	Unit Operations	4
PSYC 2301	General Psychology †	3
	Total Hours	**15**
Semester 5		
CTEC 2250	Unit Operations II	2
CTEC 2443	Polymers II	4
EPCT 2335	Advanced Environmental Instrumental Analysis ‡	3
SPCH	Speech Elective †	3
	Total Hours	**12**
Semester 6		
CTEC 2333	Comprehensive Studies in Chemical Tech º ** ‡	3
EPCT 1203	24-Hour Emergency Response Training	2
EPCT 1251	Quality Assurance & Quality Control	2
	Total Hours	**7**
	GRAND TOTAL	**72**

º This course has been designated as a capstone course.
*** CTEC 1380 or CTEC 1680 (Co-op) may be taken in place of the capstone course.*
† High School Articulated Course.
‡ Course with external experience.

Notes:_____

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Computer Drafting and Design Technology

Information Technology

Industrial growth and increasingly complex design problems linked to new products and processes will greatly increase the demand for drafting services in the future. Drafters prepare detailed drawings used to manufacture or build any object or structure. These drawings are prepared from sketches, notes and discussions with other designers, architects and engineers. Neatness and the ability to pay close attention to details are important qualities for drafters.

In this program, students will:

- Utilize computer graphics equipment to produce drawings and solve problems in mechanical, electronic, civil, and architectural drafting
- Learn principles of computer-aided drafting on various types of industry-quality graphics systems
- Learn basic principles of design as applied to printed circuit board production, electrical-mechanical packaging, structural steel construction, architectural and civil engineering and other areas.

Admissions Requirements

In addition to admissions requirements listed under "Admissions Information," it is recommended students complete two units of high school mathematics, including one unit of algebra.

COURSE NAME		CREDIT HOURS
Semester 1		
ENGL 1301	Composition I †	3
DFTG 1305	Technical Drafting †	3
DFTG 1309	Basic Computer-Aided Drafting †	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
DFTG 2312	Technical Illustration	3
DFTG 1333	Mechanical Drafting	3
DFTG 2350	Geometric Dimensioning & Tolerancing	3
PSYC 2301	General Psychology †	3
MATH 1314	College Algebra †	3
	Total Hours	**15**
Semester 3		
DFTG 1317	Architectural Drafting-Residential †	3
DFTG 2340	Solid Modeling/Design	3
SRVY 2348	Plane Surveying	3
GISC 1311	Introduction to Geographic Information Systems (GIS)	3
MATH 1316	Plane Trigonometry	3
	Total Hours	**15**
Semester 4		
DFTG 2328	Architectural Drafting-Commercial ‡	3
DFTG 2332	Advanced Computer-Aided Drafting	3
DFTG 2330	Civil Drafting	3
GISC 2320	Intermediate Geographic Information Systems (GIS)	3
SPCH	Speech Elective †	3
	Total Hours	**15**
Semester 5		
DFTG 2331	Adv. Technologies in Architectural Drafting-Commercial ° ‡	3
DFTG 2306	Machine Design ° **	3
DFTG 2321	Topographical Drafting °	3
GISC 1301	Cartography and Geography in GIS & GPS	3
	Humanities/Fine Arts Elective ° †	3
	Total Hours	**15**
	GRAND TOTALS	**72**

° This course is designated as a capstone course.
*** DFTG 2380 or DFTG 2680 (Co-op) may be taken in place of the capstone course.*
† High School Articulated Courses.
‡ Courses with External Experience.

Notes:_____

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Computer Drafting and Design Technology
GIS/GPS Specialty

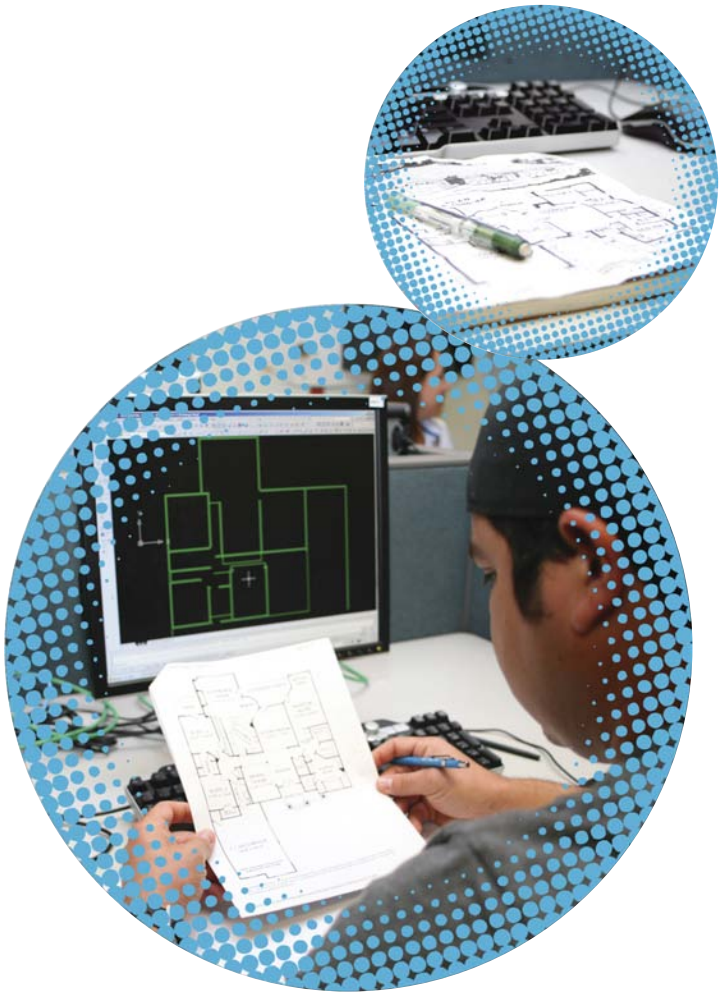
Science, Technology, Engineering & Mathematics

The Computer Drafting & Design Technology program with a specialty in GIS/GPS prepares students to operate industry-standard GIS packages, such as Arc View or Arc Info, on a personal computer; capture positional and attribute information with correct and accurate geographic referencing; convert geographic information among several coordinate systems; and acquire GIS information from databases, existing maps, the Internet and annotate output for finished maps, documents and reports.

Graduates will be able to measure distances and areas on maps, including real world placement, and correctly relate the two, as well as acquire geographic information directly using GPS and merge it with existing information. Also, students will manage the geographic information in a dynamic database situation.

Admissions Requirements

Students must complete admissions requirements listed under "Admissions Information."



COURSE NAME		CREDIT HOURS
Semester 1		
DFTG 1305	Technical Drafting †	3
DFTG 1309	Basic Computer-Aided Drafting †	3
ENGL 1301	Composition I †	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
DFTG 1317	Architectural Drafting-Residential †	3
DFTG 1333	Mechanical Drafting	3
DFTG 1358	Electrical/Electronics Drafting	3
DFTG 2319	Intermediate Computer-Aided Drafting †	3
MATH 1314	College Algebra †	3
	Total Hours	**15**
Semester 3		
DFTG 2328	Architectural Drafting-Commercial ‡	3
DFTG 2330	Civil Drafting	3
DFTG 2340	Solid Modeling/Design	3
MATH 1316	Plane Trigonometry †	3
PSYC 2301	General Psychology †	3
	Total Hours	**15**
Semester 4		
GISC 1311	Introduction to Geographic Information Systems (GIS)	3
GISC 1321	Introduction to Raster-Based GIS	3
ITSW 1307	Introduction to Database	3
SPCH	Speech Elective †	3
SRVY 1301	Introduction to Surveying	3
	Total Hours	**15**
Semester 5		
GISC 1301	Cartography & Geography in GIS & GPS	3
GISC 2301	Data Acquisition & Analysis in GIS	3
GISC 2311	Geographic Information Systems (GIS) Applications ° **	3
GISC 2320	Intermediate GIS	3
	Humanities/Fine Arts Elective †	3
	Total Hours	**15**
	GRAND TOTALS	**72**

° This course is designated as a capstone course.
*** CRTG 2680 or CRTG 2380 (Co-op) may be taken in place of the capstone course.*
† High School Articulated Courses.
‡ Courses with External Experience.

Notes:_____

Computer Networking and Security Technology
Computer Network Specialist

Network administrators and network security specialists are expected to be among the fastest growing occupations through 2010. In order to maintain a competitive edge and operate more cost effectively, firms will continue to demand computer-networking professionals who are knowledgeable in the latest technologies and able to apply them to meet the needs of business.

The expanding integration of Internet technologies by businesses has resulted in a rising demand for networking professionals who can develop and support Internet, Intranet and web applications. This translates into a need for computer-networking professionals who can help organizations use technology to communicate with employees, clients, and consumers. Explosive growth in these areas is also expected to fuel demand for specialists knowledgeable in network security.

Network management, network security and other growing specialty occupations reflect the increasing emphasis on client-server applications, the growth of the Internet, the expansion of World Wide Web applications and Intranets, and the demand for more end-user support. In addition, growth of the Internet and expansion of the World Wide Web have generated a variety of occupations relating to design, development, and maintenance of websites and their servers. (Source: U.S. Department of Labor-Job Outlook Statistics).

The Computer Networking & Security Technology program will provide students with the skills needed to compete in a high technology job market that continues to expand rapidly.

CNST graduates are successfully employed as:

Network and Computer Systems Administrators or Network Specialists who:

- Design, install, and support an organization's local area network (LAN), wide area network (WAN), network segment, or Internet systems
- Maintain network hardware and software, analyze problems, and monitor the network to ensure availability to system users
- Plan, coordinate, and implement network security measures

Computer Security Specialists who:

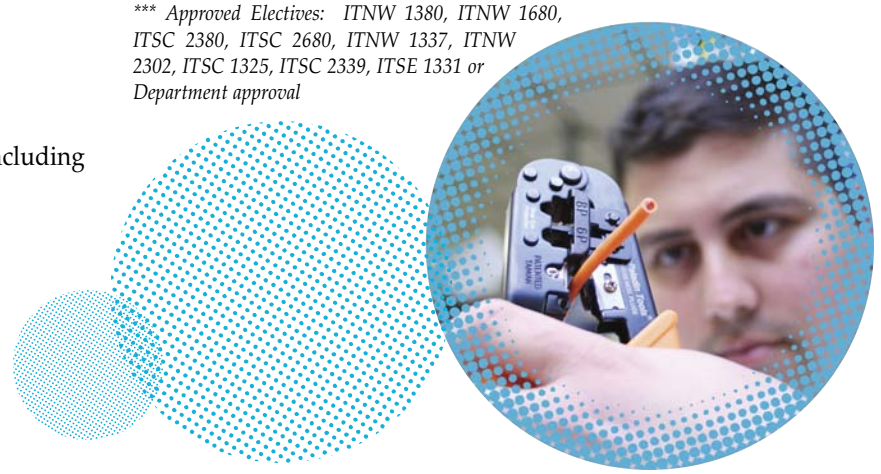
- Manage the organization's information security

Webmasters who:

- Administer all technical aspects of a website, including performance issues, such as speed of access

COURSE NAME		CREDIT HOURS
Semester 1		
ITNW 1325	Fundamentals of Networking Technologies †	3
CPMT 1303	Introduction to computer Technology †	3
ITNW 1354	Implementing & Supporting Servers	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
CPMT 1304	Microcomputer System Software†	3
ITSE 1331	Introduction to Visual Basic Programming	3
ITNW 2321	Networking with TCP/IP	3
ITSC 1309	Integrated Software Applications I †	3
ITNW 2309	Network Administration for Intranet	3
	Total Hours	**15**
Semester 3		
MATH 1314	College Algebra †	3
ITSY 1342	Information Technology Security	3
ITNW 2354	Internet/Intranet Server	3
ITNW 2313	Networking Hardware	3
ENGL 1301	Composition I †	3
	Total Hours	**15**
Semester 4		
ITSY 2301	Firewalls & Network Security	3
ITSY 2330	Intrusion Detection	3
ITNW 2359	Web Server Support & Maintenance	3
	Approved Technical Elective **	2
SPCH 1318	Interpersonal Communication †	3
	Total Hours	**14**
Semester 5		
ITNW 2350	Enterprise Network ° **	3
ITNW 1392	Special Topics in Computer Systems and Telecomunications	3
ITSY 2359	Security Assessment & Auditing	3
	Humanities/Fine Arts Elective	3
	Social/Behavioral Sciences Elective	3
	Total Hours	**15**
	GRAND TOTAL	**71**

° This course is designated as a capstone course.
† Courses Articulated with High School.
‡ Course includes external experience.
**** Approved Electives: ITNW 1380, ITNW 1680, ITSC 2380, ITSC 2680, ITNW 1337, ITNW 2302, ITSC 1325, ITSC 2339, ITSE 1331 or Department approval*



Computer Science Software Development

Information Technology

Due to the extensive use of computers in business and industry, a great demand for computer programmers exists. Computer programs, or software, are the series of instructions that tell the computer what operations to perform. The computer programmer designs the set of instructions and then maintains the programs so that users maximize their computers. This field requires exacting, logic-oriented technicians.

In this program, students will learn to:

- Write programs in the most common computer languages
- Analyze the needs of a company or office and design appropriate computer programs

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
CPMT 1303	Introduction to Computer Technology †	3
ITSE 1331	Introduction to Visual BASIC Program.	3
HRPO 1311	Human Relations †	3
ITSC 1309	Integrated Software Application †	3
ITNW 1325	Fundamentals of Networking †	3
	Total Hours	**15**
Semester 2		
CPMT 1304	Microcomputer System Software †	3
ITSE 1311	Introduction to Web Page Programming	3
ITSE 1350	Systems Analysis and Design	3
GAME 1301	Computer Ethics	3
ITSE 2349	Advanced Visual BASIC Programming	3
	Total Hours	**15**
Semester 3		
ITSC 1307	UNIX Operating System I	3
ITSE 1307	Introduction to C++ Programming	3
ITSE 1359	Introduction to Scripting Languages	3
ITSE 2309	Database Programming	3
MATH 1314	College Algebra †	3
	Total Hours	**15**
Semester 4		
INEW 2330	Comprehensive Software Project I: Planning and Design	3
ITSE 2317	JAVA Programming †	3
ITSE 2331	Advanced C + + Programming	3
ITSC 2347	Advanced Database Programming †	3
SPCH	Speech Elective †	3
	Total Hours	**15**
Semester 5		
INEW 2332	Comprehensive Software Project II: Coding, Testing & Implementation ° ‡	3
	Behavioral/Social Science Elective †	3
ENGL 1301	Composition I †	3
	Humanities/Fine Arts Elective †	3
	Total Hours	**12**
	GRAND TOTAL	**72**

° This course has been designated as the capstone course.
† High School articulated course.
‡ Course includes external experience.

Notes:_____

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Computer Science Software Development
Game and Simulation Programming Specialty

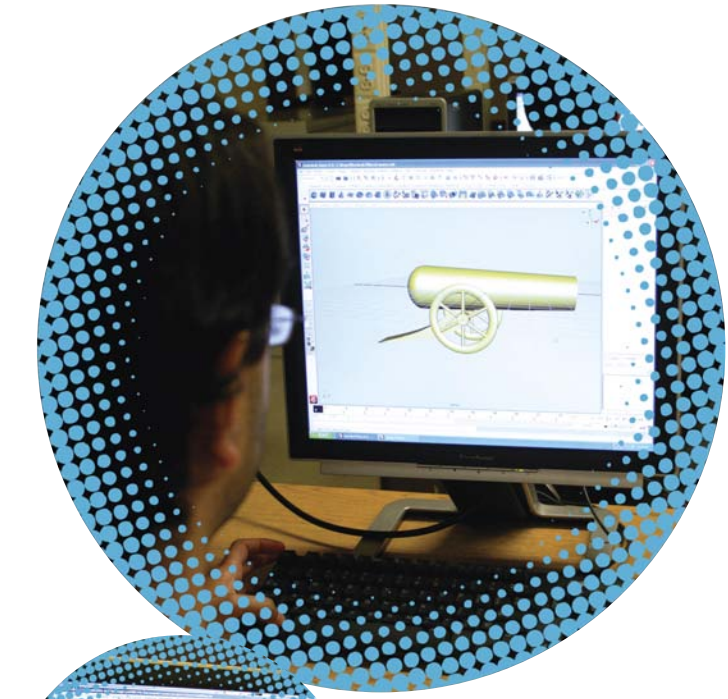
Due to the extensive use of computers in business and industry, a great demand for computer programmers exists. Computer programs, or software, are the series of instructions that tell the computer what operations to perform. Graduates from the game and simulation programming specialty will have a strong background in game design, software development tools and techniques, and graphics programming.

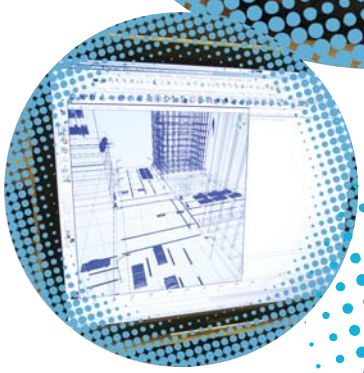
In this program, students will learn to:

- Develop computer games and simulations using appropriate tools and techniques. Examine best practices for entering the industry.

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."





COURSE NAME		CREDIT HOURS
Semester 1		
GAME 1303	Introduction to Game Design and Development	3
MATH 1314	College Algebra †	3
HRPO 1311	Human Relations †	3
GAME 1306	Design and Creation of Games	3
	Total Hours	**12**
Semester 2		
GAME 1301	Computer Ethics	3
MATH 1316	Plane Trigonometry	3
GAME 1304	Level Design	3
ITSE 1307	Introduction to C++ Programming	3
	Total Hours	**12**
Semester 3		
GAME 1343	Graphics and Simulation Programming I	3
MATH 2318	Linear Algebra	3
ITSE 2331	Advanced C++ Programming	3
GAME 1309	Introduction to Animation Programming	3
	Total Hours	**12**
Semester 4		
GAME 1349	OpenGL Programming I	3
GAME 1353	Multi-User Game Programming I	3
GAME 1359	Graphics and Simulation II	3
ITSE 2345	Data Structures	3
	Total Hours	**12**
Semester 5		
GAME 2353	OpenGL Programming II	3
GAME 2303	Artificial Intelligence	3
GAME 2333	Graphics and Simulation III	3
ENGL 1301	Composition I †	3
	Total Hours	**12**
Semester 6		
GAME 2359	Game and Simulation Group Project °	3
	Social/Behavioral Science Elective	3
	Humanities/Fine Arts Elective †	3
SPCH	Speech Elective	3
	Total Hours	**12**
	GRAND TOTAL	**72**

° This course has been designated as the capstone course.
† High School articulated course.
‡ Course includes external experience.

Computer Systems Management Technology

Information Technology

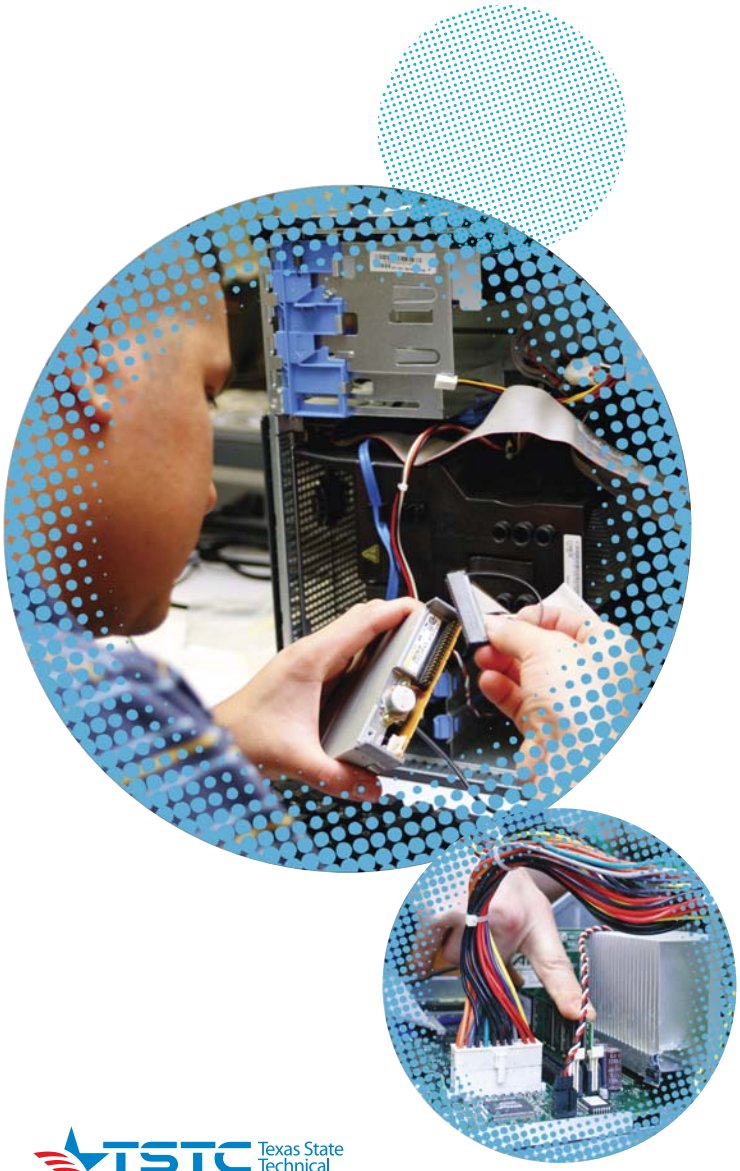
Computer Systems Management Technicians have a strong background in the diagnostics, repair and maintenance of computer and computer related equipment, which includes preventative maintenance, licensing renewals, upgrades, and recommendations for purchasing new computer systems; appropriate safety training effective oral and written communication skills, effective teamwork experience; and proper record-keeping techniques.

Instruction within the program includes the skills and procedures necessary to:

- Understand hardware and software
- Troubleshoot defective computer or computer related devices
- Recommend computer and/or computer related solutions or purchases to the end user.

Admissions Requirements

In addition to admissions requirements listed under "Admissions Information," completion of one unit of algebra is recommended.



COURSE NAME		CREDIT HOURS
Semester 1		
CPMT 1303	Introduction to Computer Technology †	3
MATH 1314	College Algebra †	3
HRPO 1311	Human Relations †	3
ITNW 1325	Fundamentals of Networking Technology	3
ITSC 1309	Integrated Software Applications †	3
	Total Hours	**15**
Semester 2		
CPMT 1304	Microcomputer Software Systems †	3
CPMT 1307	Electronic and Computer Skills (or CETT 1307)	3
CPMT 1311	Introduction to Computer Maintenance †	3
ITSE 1331	Introduction to Visual BASIC Program.	3
ITNW 2321	Networking TCP/IP	3
	Total Hours	**15**
Semester 3		
CPMT 1343	Microcomputer Architecture	3
CPMT 1345	Computer Systems Maintenance	3
ITSC 2339	Personal Computer Help Desk	3
ENGL 1301	Composition I †	3
GAME 1301	Computer Ethics	3
	Total Hours	**15**
Semester 4		
CPMT 1347	Computer System Peripherals	3
SPCH	Speech Elective	3
ITSC 1307	UNIX Operating System I (or ITNW 230	3
	Humanities/Fine Arts Elective	3
ITSE 1350	Systems Analysis and Design	3
	Total Hours	**15**
Semester 5		
CPMT 2345	Computer System Troubleshooting °	3
CPMT 2350	Industry Certification Preparation	3
	Social/Behavioral Science Elective	3
CPMT 2302	Home Technology Integration †	3
	Total Hours	**12**
	GRAND TOTAL	**72**

° This course has been designated as the capstone course.
† High school articulated course.
‡ Course with external experience.

Notes:_____

Culinary Arts

Employment in the field of culinary arts is expected to increase rapidly due to population growth, higher family and personal incomes and more leisure time that will allow people to dine out more often. Professionals in this field must have a wide range of skill and expertise in preparing appetizing, appealing foods. This program emphasizes perfection of cooking techniques through specialized training in planning and preparation.

In this program, students will learn to:

- Follow recipes using standard weight and measures
- Prepare a wide variety of foods
- Maintain quality in all cookery
- Utilize industry-standard kitchen tools and equipment

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
CHEF 1205	Sanitation and Safety †	2
CHEF 1301	Basic Food Preparation †	3
IFWA 1205	Food Service Equipment & Planning	2
RSTO 1204	Dining Room Service	2
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
CHEF 2301	Intermediate Food Preparation	3
FDNS 1305	Nutrition †	3
IFWA 1219	Meat Identifying & Processing	2
RSTO 2301	Principles of Food & Beverage Controls	3
SOCI 1301	Introduction to Sociology (or Social Behavior Elective) †	3
	Total Hours	**14**
Semester 3		
CHEF 1314	A la Carte Cooking	3
RSTO 1325	Purchasing for Hospitality Operations	3
PSTR 1401	Fundamentals of Baking	4
POFT 1321	Business Math (or MATH 1314) †	3
ENGL 1301	Composition I †	3
	Total Hours	**17**
Semester 4		
IFWA 2437	Special Projects & Field Work ‡	4
RSTO 1313	Hospitality Supervision	3
RSTO 2307	Catering	3
BIOL 1408	General Biology I †	4
	Humanities/Fine Arts Elective †	3
	Total Hours	**17**
Semester 5		
IFWA 2341	Specialized Food Preparation º ** ‡	3
RSTO 1221	Menu Management	2
SPCH	Speech Elective †	3
RSTO 1201	Beverage Management	2
BMGT 1327	Principles of Management (or HRPO 2301) †	3
	Total Hours	**13**
	GRAND TOTAL	**72**

º This course has been designated as the capstone course.
*** CHEF 2480 or CHEF 2680 (Co-op) may be taken in place of IFWA 2341.*
† High School articulated course.
‡ Courses include external experience.

Notes:_____

Dental Hygiene

As the state's population grows and the average age of its residents increases, more demands are being placed on existing health service providers to satisfy clients' needs. One health service area in need of additional support is dental services. With an aging population and increased emphasis being placed on preventive dentistry, the skills of dental hygienists are increasingly needed.

This program is accredited by the American Dental Association.

The dental hygiene program follows the TSTC health professions program grading scale. The student must maintain a numerical average of 78 or better in each required major course to receive the AAS degree.

Admissions Requirements

In addition to the admissions requirements listed under "Admissions Information," all applicants are required to take the Health Occupations Basic Entrance Test. Applicants will be notified of testing dates. Program applications may be obtained from the dental hygiene program and are due March 1st.

Clinical Entry Requirements

Before enrolling in clinical courses, a student must have on file with the department the following materials:

1. Results of prescribed physical examination.
2. Proof of required immunizations.
3. Proof of liability insurance of at least $1 million, health and accident insurance and needlestick insurance (available through TSTC).

COURSE NAME		CREDIT HOURS
Semester 1		
CHEM 1411	General Chemistry	4
BIOL 2301	Anatomy and Physiology I (Lecture) †	3
BIOL 2101	Anatomy and Physiology I (Lab) †	1
	Total Hours	**8**
Semester 2		
BIOL 2302	Anatomy and Physiology II (Lecture) †	3
BIOL 2102	Anatomy and Physiology II (Lab) †	1
DHYG 1227	Preventive Dental Hygiene Care	2
DHYG 1301	Orofacial Anatomy, Histology & Embryology	3
DHYG 1331	Preclinical Dental Hygiene	3
HRPO 1311	Human Relations †	3
	Total Hours	**15**
Semester 3		
DHYG 1235	Pharmacology for the Dental Hygienist	2
BIOL 2321	Microbiology for Science Major (Lecture)	3
BIOL 2121	Microbiology for Science Major (Lab)	1
DHYG 1260	Clinical-Dental Hygiene/Hygienist I	2
DHYG 1304	Dental Radiology	3
	Humanities/Fine Arts Elective	3
	Total Hours	**14**
Semester 4		
DHYG 1211	Periodontology	2
DHYG 2360	Clinical-Dental Hygiene/Hygienist II	2
DHYG 1319	Dental Materials	3
SOCI 1301	Introductory Sociology †	3
	Total Hours	**10**
Semester 5		
DHYG 1215	Community Dentistry ‡	2
DHYG 1239	General & Oral Pathology	2
DHYG 2301	Contemporary Dental Hygiene Care I	3
DHYG 2360	Clinical: Dental Hygiene/Hygienist III	3
PSYC 2301	General Psychology †	3
	Total Hours	**13**
Semester 6		
DHYG 1123	Dental Hygiene Practice	1
DHYG 1207	General & Dental Nutrition	2
DHYG 2361	Clinical: Dental Hygiene/Hygienist IV °	3
ENGL 1301	Composition I	3
SPCH	Speech Elective	3
	Total Hours	**12**
	GRAND TOTAL	**72**

° This course is designated as a capstone course.
‡ Course with external experience.
† High school articulated course

Dental Laboratory Technology

The level of public awareness of dental health and preventive dentistry has increased significantly in recent years. Because of this fact and relatively widespread dental insurance coverage, it is expected that the demand for dental laboratory technicians will continue to grow. Dental laboratory technicians make dentures, retainers, crowns, inlays, bridges and orthodontic appliances using written instructions from dentists. This field is an exacting science, as well as an art, which requires attention to precise details.

In this program, students will learn to:

- Work with wire, plaster, porcelain, wax, plastic, gold and other metals
- Use specialized tools to carve and shape dental materials
- Match color and placement of teeth for natural look and comfortable fit

Admissions Requirements

In addition to admissions requirements listed under "Admissions Information," students are required to complete special tests in manual dexterity, dimensional abilities and use of tools. Applicants will be notified of testing dates.

COURSE NAME		CREDIT HOURS
Semester 1		
DLBT 1201	Dental Anatomy & Tooth Morphology	2
DLBT 1209	Removable Partial Denture Techniques I	2
DLBT 1213	Complete Denture Techniques I	2
DLBT 1217	Fixed Restorative Techniques I	2
HRPO 1311	Human Relations †	3
	Total Hours	**11**
Semester 2		
DLBT 1205	Dental Materials	2
DLBT 2204	Removable Partial Denture Techniques II	2
DLBT 2207	Complete Denture Techniques II	2
DLBT 2211	Fixed Restorative Techniques II	2
ENGL 1301	Composition I †	3
SPCH	Speech Elective †	3
	Total Hours	**14**
Semester 3		
DLBT 2215	Removable Partial Denture Techniques III	2
DLBT 2217	Complete Denture Techniques III	2
DLBT 2241	Dental Ceramics I	2
DLBT 2244	Introduction to Orthodontic Procedures	2
DLBT 2321	Fixed Restorative Techniques III	3
MATH 1314	College Algebra (or CHEM 1411) †	3
	Total Hours	**14**
Semester 4		
DLBT 2231	Removable Partial Denture Techniques IV	2
DLBT 2233	Complete Denture Techniques IV	2
DLBT 2235	Fixed Restorative Techniques IV	2
DLBT 2242	Dental Ceramics II	2
PSYC 2301	General Psychology †	3
	Total Hours	**11**
Semester 5		
DLBT 2430	Special Projects in Dental Lab Procedures	4
DLBT 2446	Practical Laboratory Procedures °	4
	Humanities/Fine Arts Elective †	3
	Total Hours	**11**
	GRAND TOTAL	**61**

° These courses are designated as capstone courses.
† High school articulated course

Notes:

Digital Media Design Technology

Arts, A/V Technology & Communications

This program will provide training in desktop publishing, photography, graphic design, imaging editing, 3-D solids modeling, Flash and 3-D animation, sound editing, non-linear video editing and effects, web page design and multimedia development. Graduates of this program will find employment as desktop publishers, web site designers, multimedia producers, graphic artists, advertising specialists, commercial computer artists, educational software developers, electronic game developers, and 3D animation specialists.

In this program, students will learn to create illustrations, design page layout, manipulate sound and video, create and edit computer images, design 3-D modeling and animation, create web pages, and incorporate interactivity and related media applications.

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
ARTC 1302	Digital Imaging I †	3
ARTC 1305	Basic Graphic Design †	3
ENGL 1301	Composition I †	3
PHTC 1311	Fundamentals of Photography	3
HRPO 1311	Human Relations †	3
	Total Hours	**15**
Semester 2		
ARTC 1313	Digital Publishing I †	3
ENGL 2314	Technical Business Writing I	3
GRPH 1359	Object Oriented Computer Graphics	3
MATH 1314	College Algebra (or MATH 1332)	3
	Humanities/Fine Arts Elective	3
	Total Hours	**15**
Semester 3		
ARTC 2305	Digital Imaging II	3
ARTC 2313	Digital Publishing II	3
ARTV 1343	Digital Sound	3
ARTV 1351	Digital Video †	3
SPCH 1311	Intro to Speech Communication † (or Speech Elective)	3
	Total Hours	**15**
Semester 4		
ARTV 1341	3-D Animation I	3
ARTV 2341	Advanced Digital Video	3
IMED 1316	Web Page Design I	3
IMED 1345	Interactive Multimedia I	3
	Approved Technical Elective **	3
	Total Hours	**15**
Semester 5		
IMED 2311	Portfolio Development ° ‡ *	3
ARTC 2341	3-D Animation II	3
IMED 2315	Web Design II (or IMED 2345)	3
	Behavioral/Social Science Elective †	3
	Total Hours	**12**
	GRAND TOTAL	**72**

° This course has been designated as the capstone course.
† High School Articulated Course.
‡ Course with external experience.
** GRPH 1380, GRPH 2380, GRPH 2680 may be taken instead of the capstone course.*
*** Approved Electives: DFTG 1309, ITSC 1305, ITSC 1325, ITSW 1307, ITSW 1310*

Notes:_____

Education & Training

The Education & Training program is designed to prepare students to meet the demands of an increasingly competitive and intellectually challenging future through educational and personal growth, practical skills development, academic courses, and career preparation.

The Associate of Applied Science degree is a 69-semester hour program. This program is unique to the Rio Grande Valley in two ways. It allows students to gain specialized training in one of five developed educational areas of emphasis. Secondly, the program is comprised of educational classes with technical labs for hands-on learning. The students will create and develop instructional materials ready to be used in the school setting utilizing a variety of state-of-the-art media and technical resources. The Associate Degree provides students with the opportunity to continue their education towards a Bachelor Degree and teacher certification.

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
EDTC 1301	Educational Systems	3
EDTC 1341	Instructional Technology and Computer	3
HRPO 1311	Human Relations †	3
ENGL 1301	Composition I †	3
HIST 1301	United States History I Applications †	3
	Totals	**15**
Semester 2		
CDEC 1359	Children with Special Needs	3
EDTC 1311	Instructional Practices & Effective Learning Environments	3
HIST 1302	United States History II †	3
SPAN 1311	Beginning Spanish I (or General Education Elective) †	3
SPCH	Speech Elective (suggested SPCH 1315) †	3
	Totals Hours	**15**
Semester 3		
EDTC 1307	Introduction to Teaching Reading	3
TECA 1354	Child Growth & Development	3
GOVT 2301	American Government I †	3
MATH 1314	College Algebra (or BIOL 1408 or BIOL 1409) †	3
	Area of Emphasis Course #1	3
	Totals Hours	**15**
Semester 4		
EDTC 1394	Special Topics: Teaching Math and Science in the Elementary School	3
EDTC 2317	Guiding Student Behavior	3
GOVT 2302	American Government II	3
SPAN 1312	Beginning Spanish II (or General Education Elective) †	3
	Area of Emphasis Course #2	3
	Totals Hours	**15**
Semester 5		
EDTC 1364	Practicum: Teacher Assistant/Aid (or EDTC 1164 & 1264) º ‡	3
	Humanities / Fine Arts Elective †	3
	Social/Behavioral Sciences Elective †	3
	Totals Hours	**9**
	GRAND TOTAL	**69**

Enhanced Skills Certificate

CDEC 2326	Administration of Programs for Children I	3
CDEC 2328	Administration of Programs for Children II	3

AREAS OF EMPHASIS:

COURSE NAME		CREDIT HOURS
Emphasis in Bilingual Education		
EDTC 1321	Bilingual Education	3
EDTC 1325	Principles and Practices of Multicultural Education	3
Emphasis in Technology Applications & Training		
EDTC 1313	Educational Software & Technology	3
IMED 2301	Instructional Design	3
Emphasis in Early Childhood Education		
CDEC 1321	Infant and Toddler	3
CDEC 1356	Emergent Literacy for Early Childhood	3
Emphasis in General Education		
EDTC 1393	Special Topics: Writing Problems	3
EDTC 2305	Reading Problems	3
Emphasis in Students with Special Needs		
CDEC 1340	Instructional Techniques for Children with Special Needs	3
EDTC 2317	Special Topics Course: Issues in Special Needs Education	3

º This course has been designated as the capstone course
† High school articulated course
‡ Course with external experience

Health Information Technology

According to the US Department of Labor, the demand for well-trained health information technicians is expected to grow much faster than average for all occupations due to the rapid increase in the number of medical tests, treatments, and procedures that will be increasingly scrutinized by health insurance companies, regulators, courts, and consumers. Health information technicians will also be needed for data entry of patient information into computer databases to comply with Federal legislation mandating the use of the electronic health record.

This program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

In this program, students will develop skills to collect, assemble, organize and maintain health information for completeness and accuracy, using computer programs to chart and analyze health information data for patient care improvement, budget planning, documentation for use in legal actions and/or for use in research studies. Students will demonstrate proficiency of these skills during their practicum experience.

Numerous opportunities await the HIT graduate in a variety of medical facilities. Experienced, credentialed technicians may also advance to management and supervisory positions, overseeing the work of various departments within the medical facility.

The student must maintain a numerical average of 78 or better in each required major course to receive the AAS degree.

Upon completion of this program the graduate receives an Associate of Applied Science Degree and is eligible to take the national certification examination to become a Registered Health Information Technician.

Admissions Requirements

In addition to the admissions requirements listed under "Admissions Information," it is recommended that a student has maintained a 2.0 grade point average on a 4.0 scale in high school or previous post-secondary studies, or has a score of 45 on the GED. An interview with the Department Chair is also required.

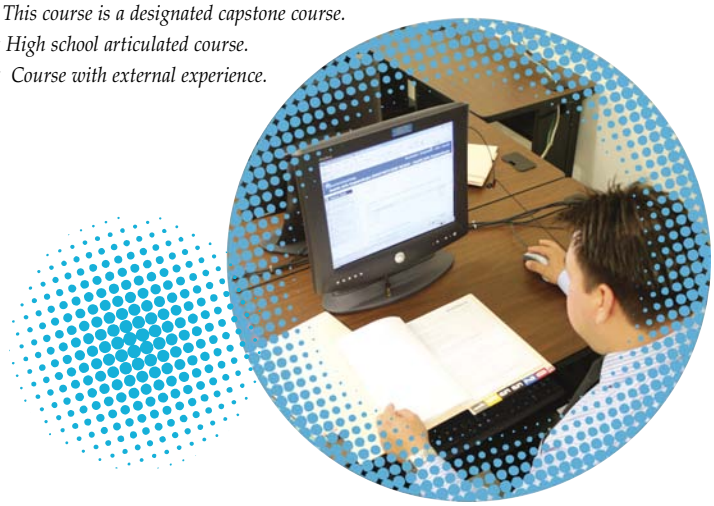
Clinical/PracticumEntry Requirements

Before enrolling in practicum courses, a student must have on file with the department the following materials:

- The ability to satisfy the industry standards for the program.
- Proof of required immunizations.
- Proof of liability insurance of at least $1 million (available through TSTC).
- Proof of health and accident insurance (available through TSTC).
- Proof of auto liability.
- Proof of current driver's license.
- Passage of a criminal background check (available through TSTC).
- Passage of a drug and alcohol screening (required by various medical facilities)

COURSE NAME		CREDIT HOURS
Semester 1		
BIOL 2401	Anatomy & Physiology I †	4
HITT 1253	Legal & Ethical Aspects of Health Information	2
HITT 1345	Health Care Delivery Systems	3
HITT 1305	Medical Terminology †	3
HRPO 1311	Human Relations †	3
	Total Hours	**15**
Semester 2		
BIOL 2402	Anatomy & Physiology II	4
HITT 1211	Computers in Health Care	2
HITT 1349	Pharmacology (or HPRS 2300)	3
HITT 1301	Health Data Content and Structure	3
SPCH	Speech Elective †	3
	Total Hours	**115**
Semester 3		
ITSC 1309	Integrated Software Applications I †	3
MDCA 1402	Human Disease/Pathophysiology	4
PSYC 2301	General Psychology	3
HITT 1341	Coding & Classification Systems	3
	Total Hours	**13**
Semester 4		
HITT 2149	RHIT Competency Review	1
ENGL 1301	Composition I †	3
HITT 2166	Practicum - Health Info/ Medical Records ‡	1
HITT 2239	Health Information Organization & Supervision	2
HITT 1255	Health Care Statistics	2
HITT 1342	Ambulatory Coding	3
	Total Hours	**12**
Semester 5		
	Math/Natural Science Elective	3
HITT 2335	Coding & Reimbursement Methodologies	3
HITT 2343	Quality Assessment & Performance Improvement	3
XXXX X3XX	Humanities/Fine Arts Elective †	3
HITT 2266	Practicum - Health Info/Medical Records °	2
	Total Hours	**14**
	GRAND TOTAL	**69**

° This course is a designated capstone course.
† High school articulated course.
‡ Course with external experience.



Machining Technology
Mold, Tool and Die Making

Tool and die maker trainees learn to operate milling machines, lathes, grinders, wire electrical discharge machines, and other machine tools. They also learn to use hand tools for fitting and assembling gauges, and other mechanical and metal-forming equipment. In addition, they study metalworking processes, such as heat treating. Tool and die makers increasingly must have good computer skills to work with CAD/CAM technology, CNC machine tools, and computerized measuring machines.

Because tools and dies must meet strict specifications—precision to one ten-thousandth of an inch is common—the work of tool and die makers requires skill with precision measuring devices and a high degree of patience and attention to detail. Persons entering this occupation also should be mechanically inclined, able to work and solve problems independently, have strong mathematical skills, and be capable of doing work that requires concentration and physical effort.

Tool and die makers play a key role in building and maintaining advanced automated manufacturing equipment. The number of workers receiving training in this occupation is expected to continue to be fewer than the number of openings created each year by tool and die makers who retire or transfer to other occupations. Students that earn the Associate of Applied Science Degree in Tool & Die / Mold Making are excellent candidates for mid management positions.

Median hourly earnings of tool and die makers, according to the Bureau of Labor Statistics, were $20.55 in May 2004. The middle 50 percent earned between $16.70 and $25.93. The lowest 10 percent had earnings of less than $13.57, while the top 10 percent earned more than $31.19. Machining Technology students are currently being placed in the median range stated above.

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
MCHN 1302	Machinist II	3
MCHN 1338	Basic Machine Shop I †	3
MCHN 1343	Machine Shop Mathematics	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operation	3
MCHN 1320	Precision Tools & Measurement	3
MCHN 2303	Fundamentals of CNC Machine Controls	3
	Total Hours	**12**
Semester 3		
MCHN 1305	Metals & Heat Treatment	3
MCHN 1358	Intermediate Lathe Operations	3
MCHN 2302	Intermediate Milling Operations	3
MCHN 2335	Advanced CNC Machining	3
	Total Hours	**12**
Semester 4		
MCHN 1335	Grinders, Outside, Internal, Surface	3
MCHN 2337	Advanced Milling Operation	3
MCHN 2370	Mold Making/Repair	3
MATH 1314	College Algebra †	3
	Total Hours	**12**
Semester 5		
ENGL 1301	Composition I †	3
MCHN 2372	Tool & Die Making & Repair	3
MCHN 2447	Specialized Tools & Fixtures º **	4
WLDG 1206	Fundamentals of Gas Tungsten Processes	2
	Total Hours	**12**
Semester 6		
	Behavioral/Social Science Elective †	3
	Humanities/Fine Arts Elective †	3
MATH 1316	Plane Trigonometry	3
SPCH	Speech Elective †	3
	Total Hours	**12**
	GRAND TOTAL	**72**

º This course has been designated as the capstone course

† High school articulated course

‡ Course with external experience

*** MCHN 2480 (Co-op ‡) may be taken in place of the capstone course*

Mechatronics Technology

Mechatronics is a new and exciting interdisciplinary field dealing with the integration of mechanical and electronic components which require computer control.

Mechatronics is centered on the disciplines of mechanics, electronics, controls and computers which combined, make possible the generation of simpler, more economical, reliable and versatile commercial and industrial products. The combination of words "Mechatronics" was first coined by Mr. Tetsuro Mori, a senior engineer of the Japanese company Yaskawa, in 1969.

Industrial applications are becoming increasingly multidisciplinary requiring engineers and technicians to develop skills in a variety of disciplines including mechanics, electronics, computer science, and automation.

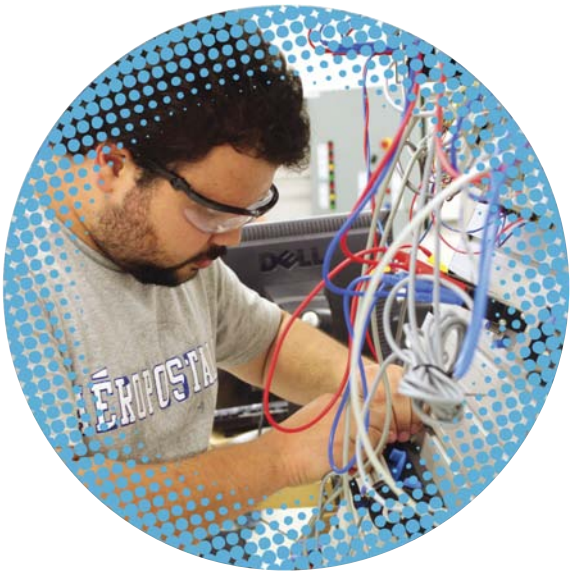
Many existing jobs categories currently or will soon require Mechatronics skills and problem solving abilities. Mechatronics courses combine various disciplines to teach students a holistic approach to developing solutions for engineering applications.

Mechatronics technicians are employed in the following sub-industries: Electrical equipment & appliances, electrical power plant & power distribution, computers & electronics products, chemicals, food & beverage, furniture, machinery, plastics & rubber, printing, textile, apparel & leather, wood & paper, primary & fabricated metals, petroleum, and transportation.

There is a high demand for bilingual engineers and technicians with Mechatronics knowledge and experience in companies in the Rio Grande Valley and surrounding regions including Austin, Dallas, Houston, Laredo, San Antonio, and in industrial "Maquiladoras" on both sides of the U.S./Mexico border.

Admissions Requirements

Students must complete admissions requirements listed under "Admissions Information."



Manufacturing

COURSE NAME		CREDIT HOURS
Semester 1		
CETT 1303	DC Circuits (or IEIR 1302) †	3
MATH 1314	College Algebra † (or MATH 2312)	3
RBTC 1305	Robotic Fundamentals	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
CETT 1305	AC Circuits (or IEIR 1304) †	3
CETT 1325	Digital Fundamentals	3
INTC 1357	AC/DC Motor Controls	3
PHYS 1401	College Physics I (or CHEM 1411)	4
	Total Hours	**13**
Semester 3		
ELMT 1301	Programmable Logic Controllers	3
ELMT 1305	Basic Fluid Power	3
ELMT 2333	Industrial Electronics	3
ENGL 1301	Composition I †	3
	Total Hours	**12**
Semester 4		
ELMT 2339	Advanced Programmable Logic Controllers	3
INTC 1341	Principles of Automatic Control	3
MCHN 1338	Basic Machine Shop I	3
	Social/Behavioral Sciences Elective †	3
	Total Hours	**12**
Semester 5		
EECT 1307	Convergent Technologies	3
FCEL 1305	Introduction to Fuel Cell & Alternative/Renewable Energy	3
SPCH	Speech Elective †	3
	Humanities/Fine Arts Elective †	3
	Total Hours	**12**
Semester 6		
ELMT 2330	Final Project °	3
ELPT 2231	AC/DC Drives	2
INMT 1319	Manufacturing Processes	3
QCTC 1303	Quality Control	3
	Total Hours	**11**
	GRAND TOTAL	**72**

° This course has been designated as the capstone course.
† High school articulated course
‡ Course with external experience.

Notes:_____

Medical Assistant

Medical Assisting is a multi-skilled allied health profession. Medical assistants function as members of the health care delivery team performing both administrative and clinical procedures. Administrative duties may include scheduling and receiving patients, preparing and maintaining medical records, performing basic secretarial skills, insurance processing and billing, medical transcribing, handling telephone calls and writing correspondence, serving as a liaison between the physician and other individuals and managing practice finances. Clinical duties may include asepsis and infection control, taking patient histories and vital signs, performing first aid and CPR, preparing patients for procedures, assisting the physician with examination and treatments, collecting and processing specimens, performing selected diagnostic tests, and preparing and administering medications as directed by the physician.

Students must maintain a numerical average of 78 or better in each Medical Assisting curriculum course to graduate from the program and receive the Associate Degree according to plan.

Admissions Requirements

In addition to admissions requirements listed under "Admissions Information," the applicant must complete an application to the program, interview with the Department Chair, and submit TASP and Health Placement Test Scores.

Clinical/PracticumEntry Requirements

Before enrolling in clinical or practicum, a student must have on file with the department the following materials:

1. Results of prescribed physical examination.
2. Proof of required immunizations.
3. Proof of liability insurance of at least $1 million, health and accident insurance and needlestick insurance (available through TSTC).

COURSE NAME		CREDIT HOURS
Semester 1		
BIOL 2401	Anatomy & Physiology I	4
HITT 1305	Medical Terminology †	3
MDCA 1417	Procedures in a Clinical Setting	4
HRPO 1311	Human Relations †	3
	Total Hours	**14**
Semester 2		
BIOL 2402	Anatomy & Physiology II	4
HITT 1301	Health Data Content & Structure	3
MDCA 1348	Pharmacology & Administration of Medications	3
MDCA 1352	Medical Assistant Laboratory Procedures	3
	Total Hours	**13**
Semester 3		
MDCA 1343	Medical Insurance	3
MDCA 1402	Human Disease/Pathophysiology	4
MRMT 1307	Medical Transcription I	3
PLAB 1323	Phlebotomy	3
	Total Hours	**13**
Semester 4		
ENGL 1301	Compostion I †	3
HITT 1211	Computers in Health Care	2
MDCA 1205	Medical Law & Ethics	2
MDCA 1460	Clinical: Medical/Clinical Assistant ‡	4
PSYC 2301	General Psychology	3
	Total Hours	**14**
Semester 5		
CHEM 1411	General Chemistry I (or BIOL 2421) †	4
MATH 1314	College Algebra (or MATH 1332) †	3
MDCA 2266	Practicum: Medical/Clinical Assistant° ‡	2
SPCH	Speech Elective †	3
	Humanities/Fine Arts Elective †	3
	Total Hours	**15**
	GRAND TOTAL	**69**

° This course has been designated as the capstone course.
† High school articulated course
‡ Course with external experience.

Notes:_____

Surgical Technology

The Surgical Technologist is a vital member of the surgical team. Surgical technologists also called surgical or operating room technologists, assist in operations under the supervision of surgeons, registered nurses, or other surgical personnel. Before an operation, surgical technologists help set up the operating room with surgical instruments and equipment, and sterile solutions. They assemble, adjust, and check nonsterile equipment to ensure that all is working properly. Technologists also prepare patients for surgery by washing, shaving, and disinfecting incision sites. They transport patients to the operating room and help position them on the operating table. Technologists also observe patient's vital signs and check charts. The technologist helps the surgical team don sterile gowns and gloves, and apply the sterile surgical "drapes" prior to the start of the surgical procedure.

During surgery, technologists pass instruments and other sterile supplies to surgeons and surgeon assistants. They may hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments. Surgical technologists help prepare, care for, and dispose of specimens taken for laboratory analysis and may help apply dressings. They may operate sterilizers, lights, or suction machines, and help operate diagnostic equipment. After an operation, surgical technologists may help transfer patients to the recovery room, and clean and restock the operating room.

This program provides classroom education and supervised clinical experience. Students take courses in anatomy and physiology, microbiology, pharmacology, professional ethics, medical terminology, speech, computers and psychology. Other studies cover the care and safety of patients during surgery, aseptic techniques and surgical procedures. Students also learn to sterilize instruments, prevent and control infection, and handle special drugs, solutions, supplies and equipment.

Surgical Technologists must possess manual dexterity to handle instruments efficiently and quickly. They also must be conscientious, orderly, and emotionally stable to handle the demands of the operating room environment. Technologists must respond quickly and have a full understanding of the procedures so that they may anticipate the needs of the surgeons without having to be asked for instruments or supplies. They are expected to keep abreast of new developments in the field. Certified surgical technologists with additional specialized education or training also may act in the role of the surgical first assistant or circulator.

Surgical technologist work in a clean, well-lighted, cool environment. They must stand for long periods and remain alert during operations. At times, they may be exposed to communicable diseases and unpleasant sights, odors, and materials. Most surgical technologists work a regular 40-hour week, although they may be on call or work nights, weekends, and holidays on a rotating basis.

- This program is offered only during the day.
- Graduates are eligible to take the national certification examination to become a Certified Surgical Technologist.
- Texas State Technical College Harlingen's Surgical Technology Program is a CAAHEP-accredited program.
- The student must maintain a numerical average of 78 or better in each required major course to receive the Associate of Applied Science degree.

Clinical Entry Requirements

Before enrolling in clinical study, a student must have on file with the department the following materials:

1. Results of prescribed physical examination.
2. Completion of Hepatitis B and A prior to being accepted into program.
3. Proof of liability insurance of at least $1 million, health and accident insurance and needlestick insurance (available through TSTC).
4. Must have a criminal background check done through Campus Police.
5. Drug screen test done prior to acceptance into program.
6. Completion of TEAS test prior to acceptance into program.

COURSE NAME		CREDIT HOURS
Semester 1		
BIOL 2401	Anatomy & Physiology I†	4
HITT 1305	Medical Terminology †	3
MATH 1314	College Algebra (or MATH 1332) †	3
HRPO 1311	Human Relations †	3
	Total Hours	**13**
Semester 2		
BIOL 2402	Anatomy & Physiology II †	4
ENGL 1301	Composition I †	3
HPRS 2300	Pharmacology for Health Professions	3
PSYC 2301	General Psychology †	3
	Total Hours	**13**
Semester 3		
BIOL 2421	Microbiology for Science Majors	4
PSYC 2314	Life Span Growth and Development	3
	Humanities/Fine Arts Elective †	3
SPCH	Speech Elective †	3
	Total Hours	**13**
Semester 4		
SRGT 1405	Introduction to Surgical Technology	4
SRGT 1409	Fund. of Perioperative Concepts & and Techniques	4
SRGT 1460	Clinical I: Surgical Technology/Technologist ‡	4
	Total Hours	**12**
Semester 5		
SRGT 1441	Surgical Procedures I	4
SRGT 1461	Clinical II: Surgical Technology/Technologist ‡	4
SRGT 1244	Technological Sciences for the Surgical Technologist	2
	Total Hours	**10**
Semester 6		
SRGT 1442	Surgical Procedures II	4
SRGT 2462	Clinical III: Surgical Technology/ Technologist ° ‡	4
	Total Hours	**8**
	GRAND TOTAL	**69**

° This course has been designated as the capstone course
†High school articulated course
‡Course with external experience

Information Technology

Telecommunications Technology

Driven by a demand for instantly accessible information, the telecommunications industry is profoundly transforming the world. Voice, data and video communications across a worldwide network are creating opportunities that did not exist a decade ago. Preparing a workforce to compete in this global marketplace is today's major challenge for the telecommunications industry.

The Telecommunications Technology program is designed to prepare students for the communications industry through educational training in the installation, operation and maintenance of communications systems using the full range of communication transport systems. The technologies include underground, above ground, cellular, fiber-optics, microwave systems, computer networks and satellites for communicating information.

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
CETT 1303	DC Circuits † (or IEIR 1302)	3
EECT 1303	Introduction to Telecommunications †	3
ENGL 1301	Composition I †	3
MATH 1314	College Algebra (or MATH 1332) †	3
HRPO 1311	Human Relations †	3
	Total Hours	**15**
Semester 2		
CETT 1305	AC Circuits † (or IEIR 1304)	3
CETT 1325	Digital Fundamentals	3
CSIR 1303	Telecommunications System Installer	3
EECT 1300	Technical Customer Service	3
	Humanities/Fine Arts Elective	3
	Total Hours	**15**
Semester 3		
CSIR 1359	Digital Data Communication	3
CSIR 1391	Special Topics	3
CSIR 2351	Fiber Optic Comm Sys Install. & Rep	3
EECT 1307	Convergent Technologies	3
EECT 1342	Telecommunications Outside Plant	3
	Total Hours	**15**
Semester 4		
CSIR 1355	Industry Certifications	3
EECT 2337	Wireless Telephony Systems	3
	Behavioral/Social Science Elective	3
SPCH	Speech Elective	3
	Total Hours	**12**
Semester 5		
CSIR 2350	Telecommunications Maintenance	3
EECT 1344	Telecommunications Broadband Systems	3
EECT 2330	Telecommunications Switching	3
EECT 2435	Telecommunications º **	4
	Total Hours	**13**
	GRAND TOTALS	**70**

º This course has been designated as the capstone course
† High school articulated course
‡ Course with external experience
*** EECT 2680 (Co-op) may be taken in place of EECT 2435*

Notes:_____

Welding Technology

Manufacturing

The Welding Technology Program at TSTC Harlingen offers an Associate of Applied Science Degree that focuses on the theory and application of Oxy/Acetylene and Plasma Cutting Processes, Shielded Metal Arc, Gas Metal Arc, Flux Cores Arc, Gas Tungsten Arc, and Submerged Arc Welding Processes used in industry today.

With 120 welding stations and 40 oxyacetylene stations, our faculty fully utilizes laboratory time by emphasizing industrialized training as you master the welding of different joint designs with fillet and grove welds in all positions on plate and pipe, and plan, design, fabricate, and weld projects using blueprint reading and layout skills.

Companies often send employees to our program for training because our instructors are thoroughly familiar with quality control standards and are exceptional welders in all the processes. The student will learn from instructors that have spent many years in industry perfecting their welding skills.

Graduates of the Welding Technology Department can look forward to exceptional career opportunities in ship building, oil refinement and processing, manufacturing, nuclear and wind energy, aerospace, and motorsports industries.

According to the 2006 United States Bureau of Labor Statistics, the median hourly earnings for welders and cutters were $15.10 with high earnings over $25.44 per hour. Because of the shortage of skilled welders that is reported from industry, excellent job opportunities and earnings exist today.

The student services office at TSTC Harlingen offer expert advice about career placement, financial aid to pay for education, scholarship availability and guidelines on improving your academic skills. We welcome prospective students and companies interested in our training program to stop by for a close-up look at our faculty and have our instructors answer any questions they may have.

In this program, students will learn to:

- Use various welding processes, including oxyacetylene welding, gas tungsten arc, gas metal arc and other sophisticated welding processes
- Perform welding in all positions, with fillet and groove welds
- Plan, design and fabricate welded projects

Admissions Requirements:

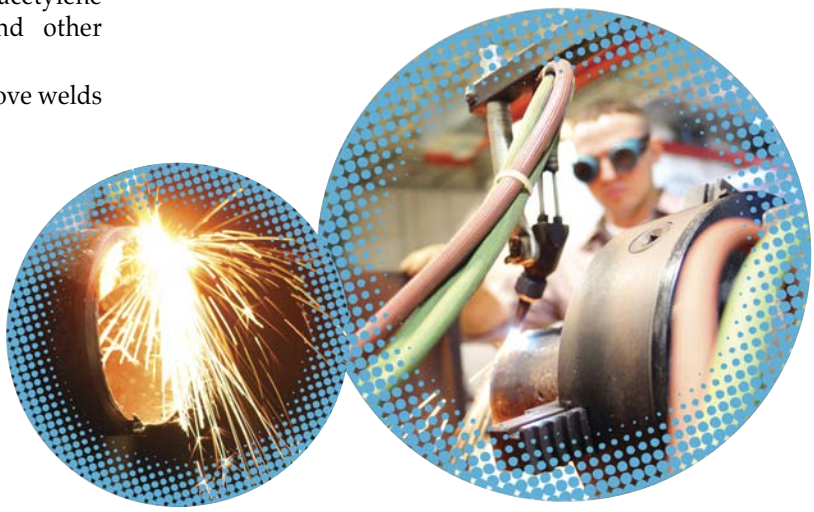
Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
DFTG 1325	Blueprint Reading and Sketching	3
WLDG 1323	Welding Safety, Tools and Equipment	3
WLDG 1421	Introduction to Welding Fundamentals †	4
HRPO 1311	Human Relations †	3
	Total Hours	**13**
Semester 2		
SPCH 1318	Interpersonal Communications	3
WLDG 1317	Introduction to Layout and Fabrication	3
WLDG 1430	Introduction to Gas Metal Arc Welding (GMAW)	4
WLDG 1457	Intermediate Shielded Metal Arc Welding (SMAW)	4
	Total Hours	**14**
Semester 3		
WLDG 1312	Introduction to Flux Cored Welding	3
WLDG 1434	Introduction to Gas Tungsten Arc Welding (GTAW)	4
WLDG 1435	Introduction to Pipe Welding	4
WLDG 2443	Advanced Shielded Metal Arc Welding (SMAW) ° **	4
	Total Hours	**15**
Semester 4		
ENGL 1301	Composition I †	3
WLDG 2355	Advanced Welding Metallurgy	3
WLDG 2453	Advanced Pipe Welding	4
MATH 1332	Contemporary Mathematics I (or MATH 1314) †	3
	Total Hours	**13**
Semester 5		
NDTE 2311	Prep for Weld Inspection Certification	3
WLDG 2413	Intermediate Welding Using Multiple Processes °	4
WLDG 2435	Adv Layout and Fabrication **	4
	Humanities/Fine Arts Elective †	3
	Social Behavioral Elective †	3
	Total Hours	**17**
	GRAND TOTAL	**72**

° This course has been designated as a capstone course.

† Course Articulated with High School.

*** WLDG 2480 or WLDG 2680 (Co-op) may be taken in place of WLDG 2443*



Associate of Science Degree Programs

General Information

Associate of Science (A.S.) degree programs are intended for students who plan to transfer to a four-year college or university and for students who need an academic two-year degree in order to find work in their fields of study. These degrees provide a broad understanding of general education with in-depth studies of related academic areas.

TSTC Harlingen specializes in A.S. degrees in health along with science, technology, engineering, and mathematics (STEM). There is a critical need throughout the state and nation for persons with these skills in business, research, and instruction. Students completing their studies will have the opportunity to transfer to other colleges and universities in order to complete their bachelor's and other advanced degrees.

The General Education Core accounts for a minimum of 48 semester credit hours of the A.S. degree curriculum. The core curriculum guidelines from the Texas Higher Education Coordinating Board "are predicated on the judgment that a series of basic intellectual competencies – reading, writing, speaking, listening, critical thinking, and computer literacy – are essential to the learning process in any discipline and thus should inform any core curriculum." This core is designed to provide students a general education in communication, humanities and fine arts, social and behavioral sciences, and mathematics and natural sciences. From this group of classes, students develop the understanding, attitudes and values that are necessary for effective, responsible, and productive living in today's society. Details about the General Education Core can be found in the Curriculum – General Education section.

General Requirements

The following information outlines the requirements for an Associate of Science degree. Additional information can be found in the Admissions and Records and the Scholastic Regulations sections of this catalog.

1. Complete admission requirements.
2. Be eligible for admission into a particular degree program. Some A.S. programs require completion of key basic courses before students can be admitted into the program itself. See the program descriptions for details.
3. Complete curriculum requirements:
   a. The student must complete the minimum credit hours as specified for the program of study. Requirements are listed with the program of study descriptions in this catalog.
   b. The student must complete the General Education Core. Be sure to consult the particular degree plan, the catalog of the university you wish to transfer to, and an advisor to see which particular General Education Core courses are appropriate for a particular area of study or university curriculum.
4. Students must meet all scholastic guidelines and specific program requirements. Additional information is included in the Scholastic Regulations section of this catalog. Some programs of study have specific requirements. More information is listed in the respective program of study description.
5. Discharge all financial obligations to TSTC.
6. Complete an Application for Graduation and payment of graduation fees.

General Education

TSTC offers general education and developmental courses approved by the Texas Higher Education Coordinating Board to support students seeking the Associate of Science degree. More information on course content and lecture and lab hours is included in the Course Descriptions section of this catalog. Academic courses are part of the Texas Common Course Numbering System (TCCNS) and are transferable individually to other public colleges and universities in the state. Completion of the General Education Core at TSTC Harlingen will allow students to transfer the core as a block of classes and replace the General Education Core at another Texas public college or university.

Learning Framework Course (EDUC 1100 or PSYC 1100)

The student success course (EDUC 1100 or PSYC 1100 – Learning Framework) is a college requirement and is part of all A.S. degree plans. Students may take either the EDUC 1100 or the PSYC 1100 course in order to satisfy this college requirement. The course is intended to help students to persist in their studies and complete their degrees in a timely manner. It provides models of strategic learning, cognition, and motivation as the basis for the introduction of academic learning strategies. Ultimately, students are expected to integrate and apply these learning skills to become effective learners in their own academic programs. Also, students will be able to learn and apply the appropriate computer skills to demonstrate how life-long learning is an ongoing part of one's development, especially in this rapidly changing age of technology and information. Students are urged to take this course as early as possible in their college studies.

Allied Health and Nursing

The Associate of Science (A.S.) degree in Allied Health and Nursing is designed to offer students interested in healthcare careers a broad knowledge base curriculum from which they may further pursue their allied health professional goals. Successful completion of the degree, would allow the student to be a competitive candidate in various allied health programs.

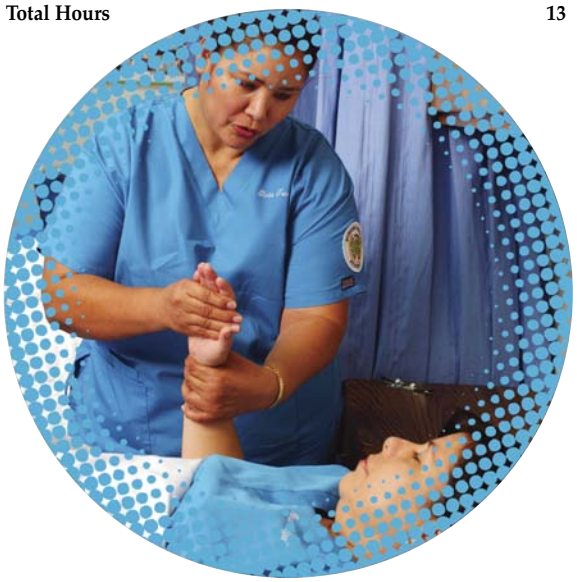
This program is intended for most students intending to pursue studies in the following areas:

- Nursing (Bachelor of Science in Nursing - BSN)
- Pre-Occupational Therapy
- Pre-Physician Assistant
- Pre-Physical Therapy
- Pre-Clinical Lab
- And similar allied health programs

Admissions Requirements

Students wishing to pursue studies in doctoral preparation programs should follow the A.S. Health Profession – Pre-Medical degree plan.

COURSE NAME		CREDIT HOURS
Semester 1		
ENGL 1301	Composition I	3
BIOL 1306	Biology for Science Majors I (Lecture)	3
BIOL 1106	Biology for Science Majors I (Lab)	1
HIST 1301	U. S. History I (to 1877)	3
SPCH	Approved Speech Course (SPCH 1311 or SPCH 1315 or SPCH 1318 or SPCH 1321 or SPCH 2333)	3
EDUC 1100	Frameworks Course (or PSYC 1100)	1
	Total Hours	**14**
Semester 2		
ENGL 1302	Composition II	3
CHEM 1411	General Chemistry I	4
HIST 1302	U. S. History II (since 1877)	3
PSYC 2301	General Psychology	3
	Total Hours	**13**
Semester 3		
MATH 1314	College Algebra	3
	Approved Elective (BIOL 1307/1107 or BIOL 1411 or BIOL 1413 or BIOL 2301/2101 or BIOL 2302/2102 or BIOL 2421 or CHEM 1405 or CHEM 1407 or CHEM 1412 or CHEM 2423 or CHEM 2425 or COSC 1301 or ENGL 2314 or MATH 1342 or MATH 1348 or MATH 2312 or MATH 2413 or MATH 2414 or MATH 2342 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426 or PSYC 2314 or SOCI 1301)	4
	Approved Elective (BIOL 1407 or BIOL 1411 or BIOL 1413 or BIOL 2401 or BIOL 2402 or BIOL 2421 or CHEM 1405 or CHEM 1407 or CHEM 1412 or CHEM 2423 or CHEM 2425 or COSC 1301 or ENGL 2314 or MATH 1342 or MATH 1348 or MATH 2312 or MATH 2413 or MATH 2414 or MATH 2342 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426 or PSYC 2314 or SOCI 1301)	3
	Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)	3
	Total Hours	**13**
Semester 4		
	Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)	3
GOVT 2301	American Government I	3
	Approved Elective (BIOL 1307/1107 or BIOL 1411 or BIOL 1413 or BIOL 2301/2101 or BIOL 2302/2102 or BIOL 2421 or CHEM 1405 or CHEM 1407 or CHEM 1412 or CHEM 2423 or CHEM 2425 or COSC 1301 or ENGL 2314 or MATH 1342 or MATH 1348 or MATH 2312 or MATH 2413 or MATH 2414 or MATH 2342 or PHYS 1401 or PHYS 1412 or PHYS 2425 or PHYS 2426 or PSYC 2314 or SOCI 1301	4
SPAN 1311	Beginning Spanish I (or SPAN 1411)	3
	Total Hours	**13**
Semester 5		
GOVT 2302	American Government II	3
SPAN 1312	Beginning Spanish II (or SPAN 1412)	3
	Humanities Course (ANTH 2346 or ENGL 2321 or ENGL 2326 or ENGL 2331 or PHIL 1301 or PHIL 1304 or PHIL 2306 or SOCI 2319* or SPAN 2323 or SPAN 2324)	3
	Approved Elective (BIOL 1407 or BIOL 1411 or BIOL 1413 or BIOL 2401 or BIOL 2402 or BIOL 2421 or CHEM 1405 or CHEM 1407 or CHEM 1412 or CHEM 2423 or CHEM 2425 or COSC 1301 or ENGL 2314 or MATH 1342 or MATH 1348 or MATH 2312 or MATH 2413 or MATH 2414 or MATH 2342 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426 or PSYC 2314 or SOCI 1301)	4
	Total Hours	**13**
	GRAND TOTAL	**66**



** SOCI 2319 (Minority Studies) may count either as a Social/Behavioral Science class or a Humanities class, but it cannot count for both groups*

Pending approval by the THECB.

Biology

The Associate of Science (A.S.) Degree in Biology is intended for students who require an immediate professional degree in biology or who wish to transfer to a four-year institution and major in a biological science. A vast diversity of educational and employment opportunities exist in the area of the biological sciences. Biologists can pursue careers in teaching, conduct research related to disease, or work for government agencies like the Department of Agriculture, Fish and Wildlife Service, or the National Park Service.

COURSE NAME		CREDIT HOURS
Semester 1		
ENGL 1301	Composition I	3
BIOL 1306	Biology for Science Majors I	4
HIST 1301	U. S. History II (since 1877)	3
SPCH	Approved Speech Course (SPCH 1311 or SPCH 1315 or SPCH 1318 or SPCH 1321 or SPCH 2333)	3
EDUC 1100	Frameworks Course (or PSYC 1100)	1
	Subtotal	**14**
Semester 2		
ENGL 1302	Composition II	3
BIOL 1306	Biology for Science Majors I (Lecture)	3
BIOL 1106	Biology for Science Majors I (Lab)	1
HIST 1302	U. S. History II (since 1877)	3
	Social/Behavioral Course (ECON 2301 or PSYC 2301 or PSYC 2314 or SOCI 1301 or SOCI 1306 or SOCI 2319*)	3
	Total Hours	**13**
Semester 3		
MATH 1314	College Algebra	3
	Approved Elective (BIOL 1411 or BIOL 1413 or BIOL 2306 or BIOL 2416 or BIOL 2401 or BIOL 2421 or BIOL 2428)	4
	Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)	3
	Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)	3
	Total Hours	**13**
Semester 4		
CHEM 1411	General Chemistry I	4
GOVT 2301	American Government I	3
	Humanities Course (ANTH 2346 or ENGL 2321 or ENGL 2326 or ENGL 2331 or PHIL 1301 or PHIL 1304 or PHIL 2306 or SOCI 2319* or SPAN 2323 or SPAN 2324	3
SPAN 1311	Beginning Spanish I (or SPAN 1411)	3
	Total Hours	**13**
Semester 5		
CHEM 1412	General Chemistry II	4
GOVT 2302	American Government II	3
SPAN 1312	Beginning Spanish II (or SPAN 1412)	3
	Total Hours	**10**
	GRAND TOTAL	**63**

** SOCI 2319 (Minority Studies) may count either as a Social/Behavioral Science class or a Humanities class, but it cannot count for both groups*

Pending approval by the THECB.

Computer Science

The Associate of Science (A.S.) degree in Computer Science is intended for students planning to transfer to a college or university in order to obtain a bachelor's degree in Computer Science. Students enrolled in this degree plan are prepared with fundamental principles of Computer Science. Courses offered cover theoretical concepts and essential programming skills. Software development procedures are implemented throughout the courses so students develop the necessary skill of a professional programmer. Study of computer organization and assembly language are also included as part of the curriculum.

Admissions Requirements

Students must show an ability to benefit in order to enter into the A.S. Computer Science program. Students may take all courses in the degree plan for which they meet course prerequisites without being admitted into the program. However, the following requirements must be met in order to be admitted into the program.

Ability to benefit prerequisites to admission into the program

- Grade of C or better in Trigonometry (MATH 1316) or Pre-Calculus (MATH 2312) or equivalent, and
- Grade of C or better in all developmental courses or equivalent (TSI complete)

COURSE NAME		CREDIT HOURS
Semester 1		
HIST 1301	U. S. History I (to 1877)	3
ENGL 1301	Composition I	3
MATH 2413	Calculus I	4
	Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)	3
EDUC 1100	Frameworks Course (or PSYC 1100)	1
	Total Hours	**14**
Semester 2		
COSC 1436	Programming Fundamentals I	4
ENGL 1302	Composition II	3
HIST 1302	U. S. History II (since 1877)	3
GOVT 2301	American Government I	3
	Total Hours	**13**
Semester 3		
COSC 1437	Programming Fundamentals II	4
SPAN 1311	Beginning Spanish I (or SPAN 1411)	3
GOVT 2302	American Government II	3
	Science Course (BIOL 1308 or BIOL 1309 or BIOL 1406 or BIOL 1407 or BIOL 1408 or BIOL 1409 or BIOL 2301 or BIOL 2302 or BIOL 2401 or BIOL 2402 or BIOL 2421 or CHEM 1405 or CHEM 1411 or PHYS 1401 or PHYS 24253)	3
	Total Hours	**13**
Semester 4		
SPAN 1312	Beginning Spanish II (or SPAN 1412)	3
	Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)	3
	Science Course (BIOL 1308 or BIOL 1309 or BIOL 1406 or BIOL 1407 or BIOL 1408 or BIOL 1409 or BIOL 2301 or BIOL 2302 or BIOL 2401 or BIOL 2402 or BIOL 2421 or CHEM 1405 or CHEM 1411 or CHEM 1412 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426	3
	Approved Elective (ACCT 2401 or BCIS 1432 or BIOL 1406 or COSC 1315 or COSC 1319 or COSC 1420 or COSC 1430 or COSC 2430 or COSC 2417 or COSC 2418 or COSC 2425 or COSC 2330 or COSC 2436 or CHEM 1411 or MATH 1342 or MATH 1348 or MATH 2305 or MATH 2318 or MATH 2414 or MATH 2342 or PHIL 2303 or PHYS 2426)	3
	Total Hours	**12**
Semester 5		
	Social/Behavioral Course (ECON 2301 or PSYC 2301 or PSYC 2314 or SOCI 1301 or SOCI 1306 or SOCI 2319*)	3
SPCH	SPCH 1311 or SPCH 1315 or SPCH 1318 or SPCH 1321 or SPCH 2333)	3
	Humanities Course (ANTH 2346 or ENGL 2321 or ENGL 2326 or ENGL 2331 or PHIL 1301 or PHIL 1304 or PHIL 2306 or SOCI 2319 or SPAN 2323 or SPAN 2324)	3
	Approved Elective (ACCT 2401 or BCIS 1432 or BCIS 2432 or BIOL 1406 or BIOL 1407 or COSC 1315 or COSC 1319 or COSC 1420 or COSC 1430 or COSC 2430 or COSC 2417 or COSC 2418 or COSC 2425 or COSC 2330 or COSC 2436 or CHEM 1411 or CHEM 1412 or MATH 1342 or MATH 1348 or MATH 2305 or MATH 2318 or MATH 2414 or MATH 2342 or PHIL 2303 or PHYS 2426)	3
	Total Hours	**12**
	GRAND TOTAL	**64**

**SOCI 2319 (Minority Studies) may count either as a Social/Behavioral Science class or a Humanities class, but it cannot count for both groups*

Pending approval by the THECB.

Engineering

The Associate of Science (A.S.) degree in Engineering is intended for students planning to transfer to a college or university in order to obtain a bachelor's degree in engineering or a related area such as mathematics. Students in this area are preparing to complete their studies in any one of 200 types of engineering professions in six areas:

- Chemical
- Civil
- Electrical
- Management
- Science
- Mechanical

Admissions Requirements

Students must show an ability to benefit in order to be admitted into the A.S. Engineering program. Students may take all courses in this degree plan for which they meet course prerequisites without being admitted into the program.

Ability to benefit prerequisites to admission into the program

- Grade of C or better in Trigonometry (MATH 1316) or Pre-Calculus (MATH 2312) or equivalent, and
- Grade of C or better in (Frameworks) EDUC / PSYC 1100 or PSYT 1313 or HPRO 1311, and
- Be TSI complete

COURSE NAME		CREDIT HOURS
Semester 1		
HIST 1301	U. S. History I (to 1877)	3
ENGL 1301	Composition I	3
MATH 2413	Calculus I	4
SPAN 1311	Beginning Spanish I (or SPAN 1411)	3
	Total Hours	**13**
Semester 2		
ENGL 1302	Composition II	3
	Approved Elective (CHEM 1411 or BIOL 1406)	4
MATH 2414	Calculus II †	4
	Approved Elective (ENGR 2301 or MATH 2318) ‡ §	3
	Total Hours	**14**
Semester 3		
SPAN 1312	Beginning Spanish II (or SPAN 1412)	3
HIST 1302	U. S. History II (since 1877)	3
GOVT 2301	American Government I	3
	Approved Elective (BIOL 1406 or CHEM 1411 or CHEM 1412 or ENGR 2302 or MATH 2320 or MATH 2415 or COSC 1301) ‡ §	3
	Total Hours	**12**
Semester 4		
	Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)	3
GOVT 2302	American Government II	3
	Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)	3
PHYS 2425	University Physics I	4
	Total Hours	**13**
Semester 5		
PHYS 2426	University Physics II	4
SPCH	Approved Speech Course (SPCH 1311 or SPCH 1315 or SPCH 1318 or SPCH 1321 or SPCH 1333)	3
	Humanities Course (ANTH 2346 or ENGL 2321 or ENGL 2326 or ENGL 2331 or PHIL 1301 or PHIL 1304 or PHIL 2306 or SOCI 2319 or SPAN 2323 or SPAN 2324)	3
	Social/Behavioral Course (ECON 2301 or PSYC 2301 or PSYC 2314 or SOCI 1301 or SOCI 1306 or SOCI 2319*)	3
	Total Hours	**13**
	GRAND TOTAL	**65**

*** Required elective for all students.*

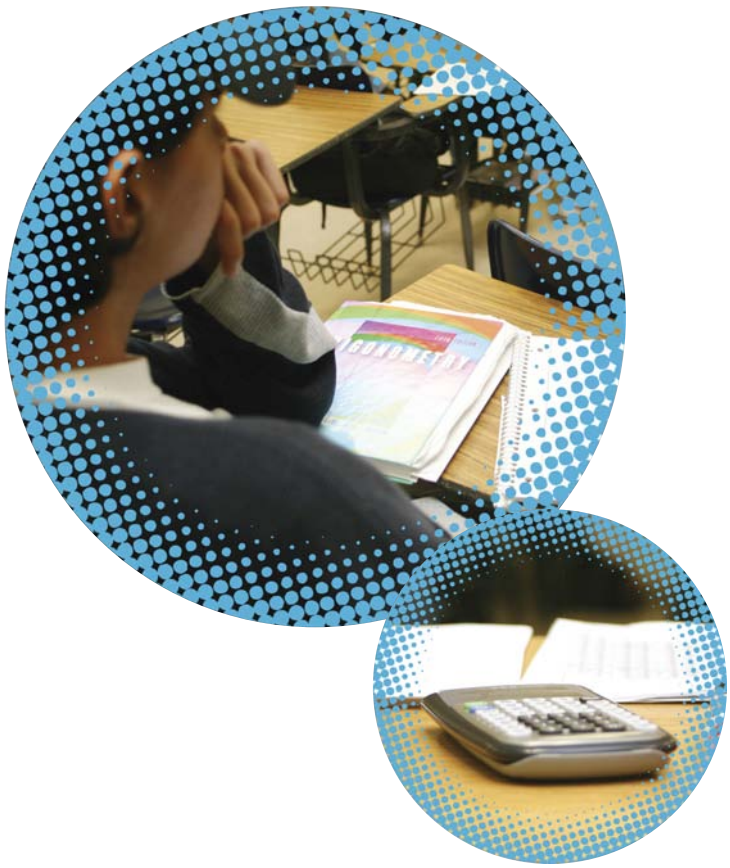
** SOCI 2319 (Minority Studies) may count either as a Social/Behavioral Science class or a Humanities class, but it cannot count for both groups*

† *Course expected to be taken by almost all Engineering majors.*

‡ *A student may take either or both MATH 2318 and 2320, or a student may take MATH 2321. MATH 2321 may not be combined for credit with either MATH 2318 or 2320.*

§ *A student may take either or both ENGR 2301 and 2302, or a student may take ENGR 2303. ENGR 2303 may not be combined for credit with either ENGR 2301 or 2302.*

Pending approval by the THECB.



Health Professions

The Associate of Science (A.S.) Degree in Health Professions will allow students to embark on their education for a future in a medical profession. An emphasis is placed on biology, chemistry, and physics to prepare students who intend on transferring to a four-year college or university and ultimately to medical school.

This program is intended for most students intending to pursue studies in the following areas:

- Pre-Medical
- Pre-Dental
- Pre-Pharmacy
- Pre-Optometry
- And other programs eventually leading to a doctoral degree in a medical field.

Students wishing to pursue studies in Nursing or Allied Health should follow the A.S. Health Profession – Allied Health and Nursing degree plan.

Admissions Requirements

Students must show an ability to benefit in order to be admitted into the A.S. Health Professions program. Students may take all courses in this degree plan for which they meet course prerequisites without being admitted into the program.

Ability to benefit prerequisites to admission into the program

- Grade of C or better in Trigonometry (MATH 1316) or Pre-Calculus (MATH 2312) or equivalent, and
- Grade of C or better in (Frameworks) EDUC / PSYC 1100 or PSYT 1313 or HPRO 1311, and
- Be TSI complete

COURSE NAME		CREDIT HOURS
Semester 1		
ENGL 1301	Composition I	3
BIOL 1306	Biology for Science Majors I (Lecture)	3
BIOL 1106	Biology for Science Majors I (Lab)	1
HIST 1301	U. S. History I (to 1877)	3
MATH 2413	Calculus I	4
	Total Hours	**14**
Semester 2		
ENGL 1302	Composition II	3
HIST 1302	U. S. History II (since 1877)	3
BIOL 1307	Biology for Science Majors II	4
PSYC 2301	General Psychology	3
	Total Hours	**13**
Semester 3		
	Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)	3
SPCH	Approved Speech Course (SPCH 1311 or SPCH 1315 or SPCH 1318 or SPCH 1321 or SPCH 2333)	3
	Humanities Course (ANTH 2346 or ENGL 2321 or ENGL 2326 or ENGL 2331 or PHIL 1301 or PHIL 1304 or PHIL 2306 or SOCI 2319* or SPAN 2323 or SPAN 2324	3
	Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)	3
	Total Hours	**12**
Semester 4		
GOVT 2301	American Government I	3
SPAN 1311	Beginning Spanish I (or SPAN 1411)	3
	Approved Elective (BIOL 1411 or BIOL 1413 or BIOL 2301/2101 or BIOL 2302/2102 or BIOL 2416 or BIOL 2421 or CHEM 1411 or CHEM 1412 or CHEM 2423 or CHEM 2425 or ENGL 2314 or MATH 1342 or MATH 1348 or MATH 2414 or MATH 2342 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426	4
	Approved Elective (BIOL 1411 or BIOL 1413 or BIOL 2301/2101 or BIOL 2302/2102 or BIOL 2416 or BIOL 2421 or CHEM 1411 or CHEM 1412 or CHEM 2423 or CHEM 2425 or ENGL 2314 or MATH 1342 or MATH 1348 or MATH 2414 or MATH 2342 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426)	4
	Total Hours	**14**
Semester 5		
GOVT 2302	American Government II	3
SPAN 1312	Beginning Spanish II (or SPAN 1412)	3
	Approved Elective (CHEM 1412BIOL 1411 or BIOL 1413 or BIOL 2301/2101 or BIOL 2302/2102 or BIOL 2416 or BIOL 2421 or CHEM 1411 or CHEM 1412 or CHEM 2423 or CHEM 2425 or ENGL 2314 or MATH 1342 or MATH 1348 or MATH 2414 or MATH 2342 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426)	4
	Approved Elective (BIOL 1411 or BIOL 1413 or BIOL 2301/2101 or BIOL 2302/2102 or BIOL 2416 or BIOL 2421 or CHEM 1411 or CHEM 1412 or CHEM 2423 or CHEM 2425 or ENGL 2314 or MATH 1342 or MATH 1348 or MATH 2414 or MATH 2342 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426	3
	Total Hours	**13**
	GRAND TOTAL	**66**

** SOCI 2319 (Minority Studies) may count either as a Social/Behavioral Science class or a Humanities class, but it cannot count for both groups*

Pending approval by the THECB.

Mathematics

The Associate of Science (A.S.) degree in Mathematics is intended for students planning to transfer to a college or university in order to obtain a bachelor's degree in Mathematics or any related discipline, such as Physics, Computer Science, Geophysics, Economics, Business and a variety of engineering fields. Students will complete 48 hours of TSTC core requirement. In addition, they will be required to take 18 hours of upper level Mathematics courses for a total of 66 hours. Employment opportunities exist with the government and private industries. Students should consult with their receiving institution for maximum transferability of these courses.

Admissions Requirements

Students may take all courses in this degree plan for which they meet course prerequisites without being admitted into the program.

Prerequisites to admission into the program

- Grade of C or better in Trigonometry (MATH 1316) or Pre-Calculus (MATH 2312) or equivalent, and
- Be TSI complete

COURSE NAME		CREDIT HOURS
Semester 1		
HIST 1301	U. S. History I (to 1877)	3
ENGL 1301	Composition I	3
MATH 2413	Calculus I	4
SPAN 1311	Beginning Spanish I (or SPAN 1411)	3
EDUC 1100	Frameworks Course (or PSYC 1100)	1
	Total Hours	**14**
Semester 2		
HIST 1302	U. S. History II (since 1877)	3
ENGL 1302	Composition II	3
MATH 2414	Calculus II	4
SPAN 1312	Beginning Spanish II (or SPAN 1412)	3
	Total Hours	**13**
Semester 3		
GOVT 2301	American Government I	3
	Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)	3
MATH 2318	Linear Algebra	3
PHYS 2425	Universitiy Physics I	4
	Total Hours	**13**
Semester 4		
GOVT 2302	American Government II	3
	Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)	3
MATH 2415	Calculus III	4
	Social/Behavioral Course (ECON 2301 or PSYC 2301 or PSYC 2314 or SOCI 1301 or SOCI 1306 or SOCI 2319*)	3
	Total Hours	**13**
Mathematics		
PHYS 2426	Universitiy Physics II	4
MATH 2320	Differential Equations	3
SPCH	Approved Speech Course (SPCH 1311 or SPCH 1315 or SPCH 1318 or SPCH 1321 or SPCH 2333)	3
	Humanities Course (ANTH 2346 or ENGL 2321 or ENGL 2326 or ENGL 2331 or PHIL 1301 or PHIL 1304 or PHIL 2306 or SOCI 2319* or SPAN 2323 or SPAN 2324)	3
	Total Hours	**13**
	GRAND TOTAL	**66**

*** SOCI 2319 (Minority Studies) may count either as a Social/Behavioral Science class or a Humanities class, but it cannot count for both groups*

Pending approval by the THECB.

Physics

Science, Technology, Engineering & Mathematics

The Associate of Science (A.S.) degree in Physics is intended for students planning to transfer to a college or university in order to obtain a bachelor's degree in Physics or a Physics related disciple, such as Astronomy, Geophysics, or any engineering field. Students will complete 48 hours of core requirement. In addition, they will be required to take 12 hours of upper level Mathematics and 8 hours of Physics courses for a total of 68 hours. For Physics graduates the employment opportunities exist in semi conductors, information technology, Aviation and other applied sciences. Students should consult with their receiving institutions for maximum transferability of these courses.

Admissions Requirements

Students may take all courses in this degree plan for which they meet course prerequisites without being admitted into the program.

Prerequisites to admission into the program

- Grade of C or better in Trigonometry (MATH 1316) or Pre-Calculus (MATH 2312) or equivalent, and
- Grade of C or better in all developmental courses or equivalent (TSI complete)

COURSE NAME		CREDIT HOURS
Semester 1		
HIST 1301	U. S. History I (to 1877)	3
ENGL 1301	Composition I	3
MATH 2413	Calculus I	4
	Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)	3
EDUC 1100	Frameworks Course (or PSYC 1100)	1
	Subtotal	**14**
Semester 2		
HIST 1302	U. S. History II (since 1877)	3
ENGL 1302	Composition II	3
MATH 2414	Calculus II	4
PHYS 2425	University Physics I	4
	Total Hours	**14**
Semester 3		
SPAN 1311	Beginning Spanish I (or SPAN 1411)	3
GOVT 2301	American Government I	3
	Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)	3
PHYS 2426	University Physics II	4
	Total Hours	**13**
Semester 4		
GOVT 2302	American Government II	3
SPAN 1312	Beginning Spanish II (or SPAN 1412)	3
MATH 2415	Calculus III	4
	Social/Behavioral Course (ECON 2301 or PSYC 2301 or PSYC 2314 or SOCI 1301 or SOCI 1306 or SOCI 2319*)	3
	Total Hours	**13**
Semester 5		
PHYS 2427	Univerisity Physics III	4
SPCH	Approved Speech Course (SPCH 1311 or SPCH 1315 or SPCH 1318 or SPCH 1321 or SPCH 2333)	3
	Humanities Course (ANTH 2346 or ENGL 2321 or ENGL 2326 or ENGL 2331 or PHIL 1301 or PHIL 1304 or PHIL 2306 or SOCI 2319* or SPAN 2323 or SPAN 2324)	3
	Total Hours	**10**
	GRAND TOTAL	**64**

** SOCI 2319 (Minority Studies) may count either as a Social/Behavioral Science class or a Humanities class, but it cannot count for both groups*

Pending approval by the THECB.

Certificate of Completion Programs

General Information

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

Generally, three-fourths of the courses are in the student's major program of study, with the remainder in general education and support courses. The majority of the student's class time is spent in the laboratory or field, applying the skills he or she has learned in class. This emphasis on hands-on experience is the major strength of TSTC's skill development programs.

General Requirements

The following information is an outline of requirements for the certificate of completion, including requirements listed under the Admissions and Records and Scholastic Regulations sections of this catalog.

1. Completion of admission requirements.
2. Completion of curriculum requirements.
   a. Students must complete the minimum credit hours as specified for the program of study.
   b. The curriculum will generally include general education and support courses.
3. Meet all scholastic guidelines and specific program requirements. Additional information is included in the Scholastic Regulation section of this catalog. Some programs have specific requirements. More information is listed in the respective program of study description.
4. Discharge of all financial obligations to TSTC.
5. Completion of an Application for Graduation and payment of graduation fees.

Notes:_____

Student Success

TSTC Harlingen, given the parameters of our resources, is committed to providing students with opportunities to assist them in achieving their personal-social, educational and career goals. To this end, the Student Success Office exists to enhance the probability of students successfully completing their goals. This is accomplished by collaborating with other departments to identify impediments, recommend specific programs and services, refer students to established offices and evaluate the college's retention efforts. The primary responsibilities of this office include:

- Recognition of students achieving academic excellence through the President's and Vice President's Honor Rolls.
- Development and implementation of a student success course (HRPO 1311)
- Development and implementation of supplemental instruction programs and traditional, as well as on-line, tutorial resources.
- Development and implementation of a peer-mentoring program.
- Development and implementation of a strategic learning/mentoring program for students on academic and financial aid suspension.
- Development and implementation of a learning strategies program, which include sessions on multiple intelligence, learning styles, time management, essentials of note-taking, techniques for reading textbooks, critical thinking, and other resources for classroom success.
- Development and implementation of career exploration program for non-technical program students
- Coordination of Learning Communities.
- Seminars and workshops on faculty development for student success.
- Monitoring the college's retention goals.

Student Success Course (HRPO 1311)

The student success course (HRPO 1311 - Human Relations) was instituted in all technical program degree plans because of the success similar courses have had in assisting students to persist and complete their programs in a timely manner. The course addresses two major themes of student development. The first is the ability for students to adjust to college life and, thus, equip them with knowledge and skills for continued life-long learning. The second is the importance of students to apply and learn the appropriate computer skills to demonstrate how life-long learning is an ongoing part of one's development, especially in this rapidly changing technology and information age.

Since TSTC's mission is directed toward providing the state of Texas with a competent workforce in the varied areas of traditional and emerging technologies, an introduction to the benefits of technical education is an underlying assumption of the HRPO 1311 course. In keeping with the college's mission, HRPO 1311 is already available to technical program students as a result of their degree plan requirements. In addition, to extend the college's commitment to promoting the benefits of technical education to students and assisting with successful completion of student goals, those students seeking transfer to another college, or who are undecided, and registered for at least one developmental studies course because of non-completion of the Texas State Initiative (TSI) will be required to take the HRPO 1311 course preferably in their first semester of enrollment. Non-technical program students (see note below) may be exempt from HRPO 1311 for any one of the following reasons:

- Student is enrolled for 6 or less college credit hours.
- Student is classified as a non-degree/certificate student.

Transfer credit may be given for HRPO 1311 if the submitted course(s) meet the course description listed under Behavioral/Social Sciences.

Note: Non-technical program students who later declare a technical program will be required to take HRPO 1311.

Notes:

Agricultural Operations

The successful farmer will continue to be a key person in the U.S. economy, with the advantages of outdoor living and working independently that few people are privileged to enjoy. The agriculture industry needs trained workers in its many areas, such as farms, ranches, feed services, and government agencies. Employees must have proper training in order to assist in the various aspects of a successful operation.

In this program, students will learn to:

- Operate farm equipment
- Process and handle livestock using up-to-date equipment and livestock holding facilities
- Plant, cultivate and harvest crops, such as cotton, grain, corn and vegetables

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."

Notes:_____

COURSE NAME		CREDIT HOURS
Semester 1		
AGAH 1401	Animal Science †	4
AGMG 1300	Agricultural Policies, Safety & Codes †	3
AGCR 1341	Forage and Pasture Management	3
HRPO 1311	Human Relations †	3
	Total Hours	**13**
Semester 2		
AGAH 1347	Animal Reproduction	3
AGAH 2413	Principles of Feeds & Feeding	4
AGCR 1403	Crop Science	4
POFT 1301	Business English (or ENGL 1301) †	3
	Total Hours	**14**
Semester 3		
AGCR 2305	Entomology	3
AGCR 2313	Soil & Water Conservation Management	3
AGMG 1318	Introduction to Agricultural	3
BIOL 1408	General Biology I	4
	Total Hours	**13**
AGRICULTURAL OPERATIONS CERTIFICATE		**40**

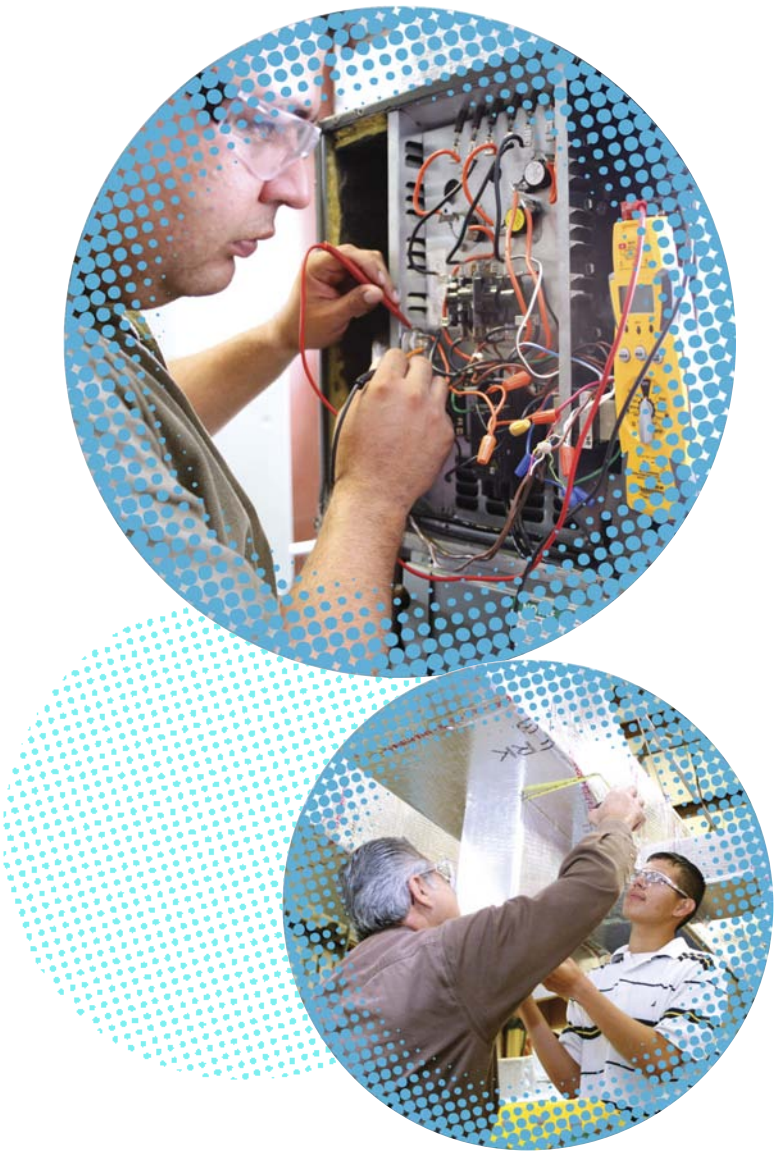
° This course is designated as the capstone course
† Courses Articulated with High School
*** AGMG 2382 or AGMG 2682 (Co-op) may be taken in place of AGMG 1318*

Air Conditioning & Refrigeration

Employment in the field of air conditioning and refrigeration technology is expected to increase as more homes and commercial and industrial facilities are built. Installations of energy-saving heating and air conditioning systems in older homes and buildings will also contribute to an increase in employment. This field offers a wide variety of career opportunities dealing with the technology of refrigeration, air conditioning and heating techniques in homes, work environment, transportation, food preservation and health.

Admissions Requirements:

In addition to admissions requirements listed under "Admissions Information," it is recommended that the student have completed two units of high school math and one unit of high school science, preferably physics or chemistry.



COURSE NAME		CREDIT HOURS
Semester 1		
HART 1371	Air Conditioning Safety & Installation	3
HART 1401	Basic Electricity for HVAC †	4
HART 1407	Refrigeration Principles †	4
HRPO 1311	Human Relations †	3
	Total Hours	**14**
Semester 2		
HART 1300	Duct Design and Fabrication	3
HART 1441	Residential Air Conditioning	4
MAIR 1449	Refrigerators, Freezers, Window Air Conditioners	4
POFT 1301	Business English †	3
	Total Hours	**14**
Semester 3		
DFTG 1313	Drafting for Specific Occupations	3
HART 1403	Air Conditioning Control Principles	4
HART 2442	Commercial Refrigeration	4
TECM 1303	Technical Mathematics †	3
	Total Hours	**14**
Exit Point: MECHANIC CERTIFICATE		**42**

° This course is designated as the capstone course.
† High School Articulated Courses.
‡ Courses with external experience.

Notes:_____

Auto Collision Technology

As the number of motor vehicles in operation increases with the population, so will the number of cars damaged in accidents. This in combination with new, lighter weight automotive designs which are prone to greater collision damage than older, heavier designs should continue to create a need for trained auto body repair personnel. These repair personnel must have a broad knowledge of auto construction and repair techniques using a wide variety of tools and machines

In this program, students will learn to:

- Perform major collision repairs
- Applications of top coats
- Repair plastic and fiberglass
- Apply learned skills in the laboratory

All Auto Body Repair students are required to take a comprehensive departmental exam during the last semester of instruction.

Admissions Requirements:

Students must complete the admissions requirements as listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
CERTIFICATE I		
Semester 1		
ABDR 1331	Basic Refinishing †	3
ABDR 1349	Automotive Plastic & Sheet Molded Compound Repair	3
ABDR 1419	Basic Metal Repair †	4
HRPO 1311	Human Relations †	3
	Total Hours	**13**
Semester 2		
ABDR 1207	Auto Body Welding	2
ABDR 1458	Intermediate Refinishing	4
ABDR 2449	Advanced Refinishing †	4
TECM 1301	Industrial Mathematics (or MATH 1332/MATH1314) †	3
	Total Hours	**13**
Semester 3		
ABDR 1311	Vehicle Measurement & Damage Repair Procedures	3
ABDR 1441	Structural Analysis & Damage Repair I	4
ABDR 2353	Color Analysis & Paint Matching º **	3
ABDR 2451	Specialized Refinishing Techniques	4
	Total Hours	**14**
	GRAND TOTAL	**40**

AUTO BODY REPAIR CERTIFICATE

CERTIFICATE II

Semester 1

ABDR 1331	Basic Refinishing †	3
ABDR 1349	Automotive Plastic & Sheet Molded Compound Repair	3
ABDR 1419	Basic Metal Repair †	4
HRPO 1311	Human Relations †	3
	Total Hours	**13**
Semester 2		
ABDR 1207	Auto Body Welding	2
ABDR 1458	Intermediate Refinishing †	4
ABDR 2449	Advanced Refinishing	4
TECM 1301	Industrial Mathematics (or MATH 1332/MATH1314) †	3
	Total Hours	**13**
Semester 3		
ABDR 1311	Vehicle Measurement & Damage Repair Procedures	3
ABDR 1441	Structural Analysis & Damage Repair I	4
ABDR 2353	Color Analysis & Paint Matching	3
ABDR 2451	Specialized Refinishing Techniques	4
POFT 1301	Business English (or ENGL 1301) †	3
	Total Hours	**17**
Semester 4		
ABDR 1442	Structural Analysis & Damage Repair II	4
ABDR 1455	Minor Metal Repair ‡	4
ABDR 2345	Vehicle Safety Systems	3
ABDR 2370	Collision Damage Analysis & Reporting Systems º **	3
	Total Hours	**14**
	GRAND TOTAL	**57**

AUTO COLLISION TECHNICIAN CERTIFICATE

º This course has been designated as a capstone experience
† High School Articulated Courses
‡ Course with external learning experience
*** ABDR 2380 or ABDR 2680 (Co-op ‡) may be taken in place of the capstone course*

Automotive Technician

Transportation, Distribution & Logistics

Job opportunities in the automotive industry are expected to be plentiful for those who complete training programs in technical schools. The increasing use of electronics in an expanding variety of automotive components requires students in this program to master a wide scope of repairs and adjustments. Today's technician must be ready to handle a more diversified range of repairs.

In this program, students will learn to:

- Diagnose and repair problems in all systems of the automobile
- Apply skills in the laboratory using up-to-date automotive equipment
- The Automotive Technician Program is NATEF certified.

Admissions Requirements:

Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
AUMT 1201	Introduction & Theory of Automotive Technology †	2
AUMT 1407	Automotive Electrical Systems †	4
AUMT 1416	Automotive Suspension & Steering Systems	4
HRPO 1311	Human Relations †	3
	Total Hours	**13**
Semester 2		
AUMT 1410	Automotive Brake Systems †	4
POFT 1301	Business English (or ENGL 1301) †	3
AUMT 1445	Automotive Heating & Air Conditioning	4
TECM 1301	Industrial Mathematics †	3
	Total Hours	**14**
Semester 3		
AUMT 2417	Automotive Engine Performance Analysis I †	4
AUMT 2421	Automotive Electrical Lighting & Accessories	4
AUMT 1419	Automotive Engine Repair †	4
	Total Hours	**12**
Exit Point: AUTOMOTIVE MECHANIC		**39**
Semester 4		
AUMT 2270	Automotive Technician Certification Standards °	2
AUMT 2413	Automotive Drive Train & Axles	4
AUMT 2425	Automotive Automatic Transmission & Transaxle	4
AUMT 2434	Automotive Engine Performance Analysis II	4
	Approved Elective ** †	2
	Total Hours	**16**
	GRAND TOTAL	**55**

° This course has been designated as a capstone course

† High school articulated courses

*** Approved Electives: AUMT 1380, AUMT 1381, AUMT 2201, AUMT 2680*

Notes:

Transportation, Distribution & Logistics

Automotive Technician

Ford Maintenance & Light Repair Specialty Certificate

In the Ford Maintenance and Light Repair program, students will learn the skills required to perform regular maintenance, light repairs and parts installation on all types of Ford, Lincoln and Mercury automobiles and light trucks.

Successful students in this program will achieve Ford Motor Company and Light Repair certification, which includes:

- Electrical systems
- Brakes
- Climate control
- Steering and suspension alignment

This 12-month program was initiated by Ford Motor Company and its dealers to address the national shortage of trained dealer technicians industry-wide. Dealers in partnership with this program offer co-op opportunities and full-time employment opportunities upon completion.

Admissions Requirements:

Students must complete the admissions requirements listed under "Admissions Information."

Notes:_____

COURSE NAME		CREDIT HOURS
Semester 1		
AUMT 1201	Introduction and Theory of Automotive Technology †	2
AUMT 1407	Automotive Electrical Systems †	4
AUMT 1416	Automotive Suspension & Steering Systems †	4
HRPO 1311	Human Relations †	3
	Total Hours	**13**
Semester 2		
AUMT 1410	Automotive Brake Systems †	4
AUMT 1445	Automotive Heating and Air Conditioning	4
POFT 1301	Business English (or ENGL 1301) †	3
TECM 1301	Industrial Mathematics (or MATH 1314/MATH 1332) †	3
	Total Hours	**14**
Semester 3		
AUMT 2680	Cooperative Education - Automotive Technician ° ‡	6
	Total Hours	**6**
	GRAND TOTAL	**33**

° This course has been designated as a capstone course
† High school articulated course
‡ Courses with external experience

Aviation Maintenance Technology
Airframe Option

Transportation, Distribution & Logistics

Aviation maintenance technicians are a vital part of the aerospace industry workforce, inspecting, servicing and maintaining aircraft worldwide. This Airframe specialty certificate trains students specifically in major airframe components and structures such as, hydraulics/pneumatics, landing gear systems, sheet metal, and composite technology.

Upon completion of the Airframe certificate, students are eligible to take the Federal Aviation Administration Airframe licensing examinations.

Airframe technicians are employed by repair stations, contract maintenance facilities, general aviation maintenance and regional and national airlines.

Admissions Requirements:
Students must complete admissions requirements listed under "Admissions Information."

Notes:_____

COURSE NAME		CREDIT HOURS
Semester 1		
AERM 1203	Shop Practices †	2
AERM 1205	Weight & Balance †	2
AERM 1208	Federal Aviation Regulations †	2
AERM 1210	Ground Operations †	2
AERM 1314	Basic Electricity †	3
AERM 1315	Aviation Science †	3
	Total Hours	**14**
Semester 2		
AERM 1241	Wood, Fabric and Finishes †	2
AERM 1243	Instruments & Navigation/ Communication	2
AERM 1247	Airframe Auxiliary Systems	2
AERM 1253	Aircraft Welding	2
AERM 1254	Aircraft Composites †	2
AERM 1345	Airframe Electrical Systems	3
	Total Hours	**13**
Semester 3		
AERM 1349	Hydraulic, Pneumatic & Fuel Systems	3
AERM 1350	Landing Gear Systems	3
AERM 1352	Aircraft Sheet Metal †	3
AERM 2231	Airframe Inspection °	2
AERM 2233	Assembly & Rigging	2
	Total Hours	**13**
	GRAND TOTAL	**40**

° This course has been designated as a capstone experience.

*** AERM 2380, AERM 2381 or AERM 2680, Co-op, may be taken as an additional course to enhance the overall objectives of the program.*

Transportation, Distribution & Logistics

Aviation Maintenance Technology
Powerplant Option

Aviation maintenance technicians are a vital part of the aerospace industry workforce, inspecting, servicing and maintaining aircraft worldwide. Engine maintenance facilities, contract maintenance, general aviation operators, and regional and national airlines employ technicians specializing in powerplant accessories, components and reciprocating and turbine engine technology.

Upon completion of this Powerplant specialty curriculum, students are eligible to take the Federal Aviation Administration Powerplant licensing examinations.

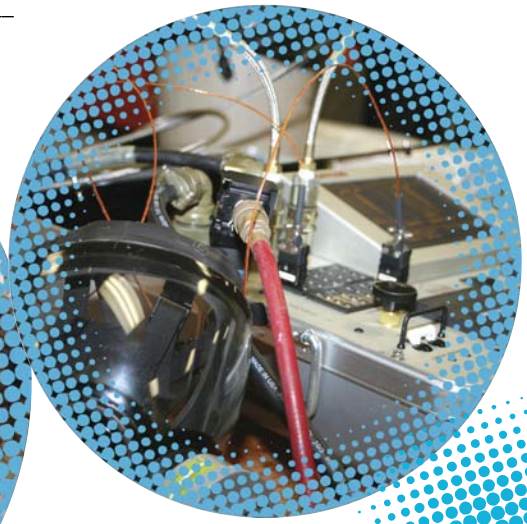
Admissions Requirements:
Students must complete admissions requirements listed under "Admissions Information."

Notes:_____

COURSE NAME		CREDIT HOURS
Semester 1		
AERM 1203	Shop Practices †	2
AERM 1205	Weight & Balance †	2
AERM 1208	Federal Aviation Regulations	2
AERM 1210	Ground Operations †	2
AERM 1314	Basic Electricity	3
AERM 1315	Aviation Science †	3
	Total Hours	**14**
Semester 2		
AERM 1240	Aircraft Propellers †	2
AERM 1357	Fuel Metering & Induction Systems	3
AERM 1456	Aircraft Powerplant Electrical	4
AERM 2341	Power Plant & Auxiliary Power Units	3
	Total Hours	**12**
Semester 3		
AERM 1344	Aircraft Reciprocating Engines	3
AERM 1351	Aircraft Turbine Engine Theory	3
	Total Hours	**6**
Semester 4		
AERM 1351	Aircraft Turbine Engine Overhaul	3
AERM 2352	Aircraft Powerplant Inspection º	3
AERM 2447	Aircraft Reciprocating Engine Overhaul	4
	Total Hours	**10**
	GRAND TOTAL	**42**

º This course has been designated as a capstone experience.

*** AERM 2380, AERM 2381 or AERM 2680, Co-op, may be taken as an additional course to enhance the overall objectives of the program*



Building Construction Technology

Anticipated growth in business investment for new factories, office buildings, stores, hotels, power plants and other structures should continue to stimulate the demand for workers in the building construction field. Maintenance and repair work on all types of structures will also contribute to this demand. Workers in this field build, repair and modernize all types of buildings, including homes, office and commercial structures.

In this program, students will learn to:

- Prepare building sites, construct foundations and finish structures, frame and finish various buildings systems
- Apply learned skills through construction of residential buildings

Admissions Requirements:

Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
CNBT 1416	Construction Technology I	4
DFTG 1325	Blueprint Reading and Sketching	3
OSHT 1405	OSHA Regulations - Construction Industry	4
HRPO 1311	Human Relations †	3
	Total Hours	**14**
Semester 2		
CNBT 1449	Concrete - Commercial and Industrial	4
CRPT 1315	Conventional Wall Systems	3
CRPT 1323	Floor Systems †	3
TECM 1301	Industrial Mathematics †	3
	Total Hours	**13**
Semester 3		
CRPT 1341	Conventional Exterior Finish Systems ° **	3
CRPT 1345	Conventional Interior Finish Systems	3
CRPT 1411	Conventional Roof Systems	4
POFT 1301	Business English †	3
	Total Hours	**13**
BUILDING CONSTRUCTION CRAFTSMAN CERTIFICATE		**40**

° This course has been designated as a capstone course.
† High School Articulated Courses.
‡ Course with external experience.
*** CNBT 2380 or CNBT 2680 (Co-op) may be taken in place of CRPT 1341.*

Notes:_____

Business, Management & Administration

Business/Office Technology
Office Assistant

Technology, information, and computers continue to impact the daily operations of businesses and emerging technologies. It is critical for companies to identify, process, and transmit information quickly and accurately if they are to keep pace with their competition.

Office Assistant Specialists usually fill the role of a General Business Clerk. Their duties vary according to the place of employment, but they usually perform such tasks as keying information, inputting and extracting data in various forms, maintaining office records of accounts, and performing business transactions.

Admissions Requirements:
Students must complete the admissions requirements listed under "Admissions Information."

Notes:_____

COURSE NAME		CREDIT HOURS
Semester 1		
ACNT 1303	Introduction to Accounting I †	3
ITSC 1309	Integrated Software Applications I †	3
POFT 1329	Beginning Keyboarding	3
POFT 1321	Business Math	3
HRPO 1311	Human Relations †	3
	Total Hours	**15**
Semester 2		
POFI 1349	Spreadsheets	3
POFI 2301	Word Processing	3
CPMT 1304	Microcomputer System Software	3
POFT 1319	Records and Information Management	3
POFT 1309	Administrative Office Procedures I	3
	Total Hours	**15**
Semester 3		
ITSW 1307	Introduction to Database	3
ITSW 1310	Introduction to Presentation Graphics Software †	3
POFT 1301	Business English	3
POFT 2331	Administrative Systems †	3
	Total Hours	**12**
	GRAND TOTAL	**42**

† High School articulated courses.

Computer Networking and Security Technology

As the business world moves into the "information age," the combination of technology and information in modern businesses requires trained technicians to effectively utilize automated office technology and increase business productivity and profit. Students in this program will become involved with all facets of business computers. Emphasis will be place on installing and troubleshooting systems, training other employees on software, researching and recommending new equipment, networking and many other areas of business computer usage.

Course topics include:

- Installing and maintaining software programs
- Mainframe and microcomputer operating systems and communications
- Components and integration of automated work stations
- Training techniques; professional services
- Usage of software, including word processing, databases and spreadsheets
- Networking

Admissions Requirements:

Students must complete the admissions requirements listed under "Admissions Information."

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COURSE NAME		CREDIT HOURS
Semester 1		
CPMT 1303	Introduction to Computer Technology	3
ITNW 1325	Fundamentals of Networking Technologies †	3
ITNW 1354	Implementing & Supporting Servers	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
CPMT 1304	Microcomputer System Software †	3
ITNW 2309	Network Administration for Intranet	3
ITNW 2321	Networking with TCP/IP E2	3
ITSC 1309	Integrated Software Applications I †	3
ITSE 1331	Introduction to Visual Basic Programming	3
	Total Hours	**15**
Semester 3		
ITNW 2313	Networking Hardware	3
ITNW 2354	Internet/Intranet Server	3
ITSY 1342	Information Technology Security E1	3
POFT 1301	Business English (or ENGL 1301 †)	3
TECM 1303	Technical Mathematics (or MATH 1314†)	3
	Total Hours	**15**
	GRAND TOTAL	**42**

° This course is designated as a capstone course.

† Courses Articulated with High School.

‡ Course includes external experience.

Computer Science Software Development

Due to the extensive use of computers in business and industry, a great demand for computer programmers exists. Computer programs, or software, are the series of instructions that tell the computer what operations to perform. The computer programmer designs the set of instructions and then maintains the programs so that users maximize their computers. This field requires exacting, logic-oriented technicians.

In this program, students will learn to:

- Write programs in the most common computer languages
- Analyze the needs of a company or office and design appropriate computer programs

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."

Notes:_____

COURSE NAME		CREDIT HOURS
Semester 1		
CPMT 1303	Introduction to Computer Technology †	3
ITSE 1331	Introduction to Visual BASIC Program	3
ITSC 1309	Integrated Software Application†	3
ITNW 1325	Fundamentals of Networking †	3
HRPO 1311	Human Relations †	3
	Total Hours	**15**
Semester 2		
CPMT 1304	Microcomputer System Software	3
ITSE 1311	Introduction to Web Page Programming	3
ITSE 1350	Systems Analysis and Design	3
ITSE 2349	Advanced Visual BASIC Programming	3
TECM 1303	Technical Mathematics (or MATH 1314) †	3
	Total Hours	**15**
Semester 3		
ITSC 1307	UNIX Operating System I	3
ITSE 1307	Introduction to C++ Programming	3
ITSE 2309	Database Programming	3
GAME 1301	Computer Ethics	3
	Total Hours	**12**
	GRAND TOTAL	**42**

† High School articulated course.

Computer Science Software Development
Game Testing Technology

Due to the extensive use of computers in business and industry, a great demand for computer programmers exists. Computer programs, or software, are the series of instructions that tell the computer what operations to perform. Graduates from the game and simulation programming specialty will have a strong background in game design, software development tools and techniques, and graphics programming.

In this program, students will learn to:

- Develop computer games and simulations using appropriate tools and techniques.
- Examine best practices for entering the industry.

Admissions Requirements

Students must complete the admissions requirements listed under "Admissions Information."

Notes:_____

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COURSE NAME		CREDIT HOURS
Semester 1		
ITSE 1331	Visual Basic Programming	3
GAME 1303	Introduction to Game Design and Development	3
GAME 1306	Design and Creation of Games	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
GAME 1301	Computer Ethics	3
TECM 1303	Technical Math †	3
GAME 1304	Level Design	3
ITSE 1307	Introduction to C++ Programming	3
ITSC 1309	Integrated Software Applications	3
	Total Hours	**15**
Semester 3		
GAME 2338	Game Testing	3
POFT 1301	Business English †	3
QCTC 1301	Total Quality Management	3
GAME 1309	Introduction to Animation Programming	3
	Total Hours	**12**
	GRAND TOTAL	**39**

† High School articulated course.

Computer Systems Management Technology
Computer Services Option

Computer Systems Management Technicians have a strong background in the diagnostics, repair and maintenance of computer and computer related equipment, which includes preventative maintenance, licensing renewals, upgrades, and recommendations for purchasing new computer systems; appropriate safety training, effective oral and written communication skills, effective teamwork experience; and proper record-keeping techniques.

Instruction within the program includes the skills and procedures necessary to:

- Understand hardware and software and
- Troubleshoot defective computer or computer related devices.

Admissions Requirements:

In addition to admissions requirements listed under "Admissions Information," completion of one unit of algebra is recommended.

COURSE NAME		CREDIT HOURS
Semester 1		
CPMT 1303	Introduction to Computer Technology †	3
TECM 1303	Technical Mathematics †	3
ITNW 1325	Fundamentals of Networking Technology	3
ITSC 1309	Integrated Software Applications †	3
HRPO 1311	Human Relations †	3
	Total Hours	**15**
Semester 2		
CPMT 1304	Microcomputer System Software †	3
CPMT 1307	Electronic and Computer Skills (or CETT 1307)	3
CPMT 1311	Introduction to Computer Maintenance †	3
ITSE 1331	Introduction to Visual BASIC Programming	3
	Total Hours	**12**
Semester 3		
CPMT 1343	Microcomputer Architecture	3
CPMT 1345	Computer Systems Maintenance	3
CPMT 1347	Computer System Peripherals	3
ITSC 2339	Personal Computer Help Desk	3
GAME 1301	Computer Ethics	3
	Total Hours	**15**
	GRAND TOTAL	**42**

° This course has been designated as the capstone course.

† High school articulated course.

‡ Course with external experience.

Notes:_____

Culinary Arts

Health Science

Employment in the field of culinary arts is expected to increase rapidly due to population growth, higher family and personal incomes and more leisure time that will allow people to dine out more often. Professionals in this field must have a wide range of skill and expertise in preparing appetizing, appealing foods. This program emphasizes perfection of cooking techniques through specialized training in planning and preparation.

In this program, students will learn to:

- Follow recipes using standard weight and measures
- Prepare a wide variety of foods
- Maintain quality in all cookery
- Utilize industry-standard kitchen tools and equipment

Admissions Requirements:

Students must complete the admissions requirements listed under "Admissions Information."

Notes:_____

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COURSE NAME		CREDIT HOURS
Semester 1		
CHEF 1205	Sanitation and Safety †	2
CHEF 1301	Basic Food Preparation †	3
IFWA 1205	Food Service Equipment & Planning	2
RSTO 1204	Dining Room Service	2
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
CHEF 2301	Intermediate Food Preparation	3
FDNS 1305	Nutrition †	3
IFWA 1219	Meat Identifying & Processing	2
RSTO 2301	Principles of Food & Beverage Controls	3
POFT 1321	Business Math †	3
	Total Hours	**14**
Semester 3		
CHEF 1314	A la Carte Cooking º ‡	3
RSTO 1325	Purchasing for Hospitality Operations	3
PSTR 1401	Fundamentals of Baking	4
POFT 1301	Business English †	3
	Total Hours	**13**
Exit Point: FOOD SERVICE SPECIALIST		**39**

º This course has been designated as the capstone course.
† High School articulated course.
‡ Courses include external experience.

Dental Assistant

As the Rio Grande Valley continues to grow, the demand for health care services is growing just as rapidly. Dental health care is one area of health care that has grown the most, requiring increased utilization of dental assistants to keep up with the demand. A dental assistant performs a variety of chairside assisting duties and related office and laboratory procedures under the supervision of the dentist. The U.S. Department of Labor predicts a shortage of dental assistants through the year 2020.

This program is accredited by the American Dental Association which allows graduates to take the Dental Assisting National Board Examination to become certified dental assistants.

Admissions Requirements:

In addition to admissions requirements listed under "Admissions Information," applicants may be required to take the Health Occupations Basic Entrance Test if the number of candidates greatly exceeds the number of openings in the new class, in addition to an interview with the Department Chair of Dental Assistant. Students must complete the Dental Assistant Program Application two months prior to the enrollment date.

The Dental Assistant program follows the TSTC health professions program grading scale. The student must maintain a numerical average of 78 or better in each required major course to receive the Certificate of Completion.

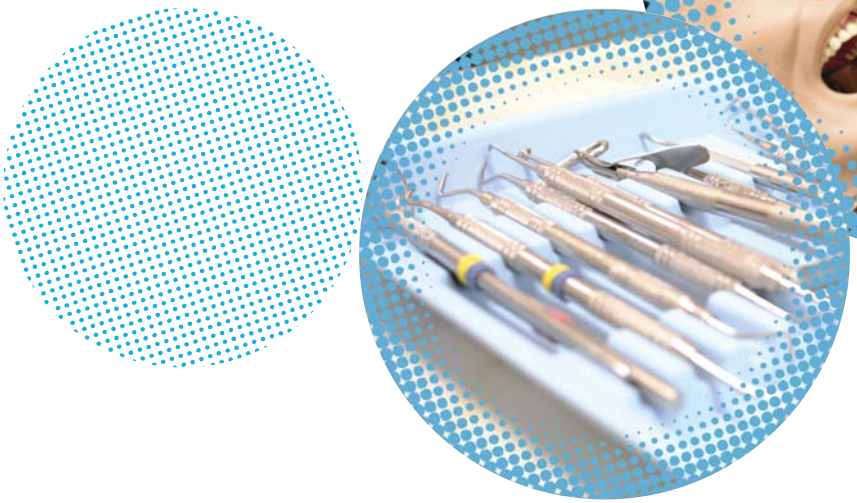
Clinical Entry Requirements:

Before enrolling in clinical study, a student must have on file with the department the following materials:

1. Results of prescribed physical examination.
2. Proof of required immunizations.
3. Proof of liability insurance of at least $1 million, health and accident insurance and needlestick insurance (available through TSTC).

COURSE NAME		CREDIT HOURS
Semester 1		
DNTA 1305	Dental Radiology I	3
DNTA 1311	Dental Science	3
DNTA 1315	Chairside Assisting	3
HRPO 1311	Human Relations †	3
DNTA 1113	Emergency Management	1
	Total Hours	**13**
Semester 2		
DNTA 1245	Preventive Dentistry	2
DNTA 1301	Dental Materials	3
DNTA 1349	Dental Radiology in the Clinic	3
DNTA 1353	Dental Assisting Applications	3
POFT 1301	Business English (or ENGL 1301) †	3
	Total Hours	**14**
Semester 3		
DNTA 1251	Dental Office Management	2
DNTA 1447	Advanced Dental Science	4
DNTA 1660	Clinical - Dental Assistant ° ‡	6
	Total Hours	**12**
	GRAND TOTAL	**39**

° Course designated as capstone course.
‡ Course with external learning experience.
† High School articulated course.



Dental Laboratory Technology

The level of public awareness of dental health and preventative dentistry has increased significantly in recent years. Because of this fact and more extensive dental insurance coverage, it is expected that the demand for dental laboratory technicians will continue to grow. Dental Laboratory technicians make dentures, retainers, crowns, inlays, bridges, and orthodontic appliances using written instructions from dentists. This field is an exacting science, as well as an art, which requires attention to precise details.

In this program, students will learn to:

- Work with wire, plaster, porcelain, wax, plastic, gold and other metals
- Use specialized tools to carve and shape dental materials
- Match color and placement of teeth for natural look and comfortable fit.

Admissions Requirements:

In addition to admissions requirements listed under "Admissions Requirements," students are required to complete special tests in manual dexterity, dimensional abilities and use of tools. Applicants will be notified of testing dates

COURSE NAME		CREDIT HOURS
Semester 1		
DLBT 1201	Dental Anatomy & Tooth Morphology	2
DLBT 1209	Removable Partial Denture Techniques I	2
DLBT 1213	Complete Denture Techniques I	2
DLBT 1217	Fixed Restorative Techniques I	2
HRPO 1311	Human Relations †	3
	Total Hours	**11**
Semester 2		
DLBT 1205	Dental Materials	2
DLBT 2204	Removable Partial Denture Techniques II	2
DLBT 2207	Complete Denture Techniques II	2
DLBT 2211	Fixed Restorative Techniques II	2
	Total Hours	**8**
Semester 3		
DLBT 2215	Removable Partial Denture Techniques III	2
DLBT 2217	Complete Denture Techniques III	2
DLBT 2241	Dental Ceramics I	2
DLBT 2244	Introduction to Orthodontic Procedures	2
DLBT 2321	Fixed Restorative Techniques III	3
TECM 1303	Technical Mathematics †	3
	Total Hours	**14**
Semester 4		
DLBT 2231	Removable Partial Denture Techniques IV	2
DLBT 2233	Complete Denture Techniques IV	2
DLBT 2235	Fixed Restorative Techniques IV	2
DLBT 2242	Dental Ceramics II	2
	Total Hours	**8**
Semester 5		
DLBT 2430	Special Projects in Dental Lab Procedures	4
DLBT 2446	Practical Laboratory Procedures °	4
POFT 1301	Business English †	3
	Total Hours	**11**
	GRAND TOTAL	**52**

° These courses are designated as capstone courses.
† High school articulated course

Notes:_____

Digital Media Design Technology

This program will provide entry level training in illustration, desktop publishing, graphic design, imaging editing, sound and video, and web page design. Graduates in this program will find employment as graphic artists, desktop publishers, video and web production with an emphasis on illustration and pre-press.

Admissions Requirements:

Students must complete the admissions requirements listed under "Admissions Information."

Notes:_____

COURSE NAME		CREDIT HOURS
Semester 1		
ARTC 1302	Digital Imaging I †	3
ARTC 1305	Basic Graphic Design †	3
PHTC 1311	Fundamentals of Photography	3
POFT 1301	Business English †	3
HRPO 1311	Human Relations †	3
	Total Hours	**15**
Semester 2		
ARTC 1313	Digital Publishing I †	3
ARTV 1343	Digital Sound	3
ARTV 1351	Digital Video	3
GRPH 1359	Object-Oriented Computer Graphics	3
TECM 1303	Technical Mathematics †	3
	Total Hours	**15**
Semester 3		
ARTC 2313	Digital Publishing II	3
BMGT 1345	Communications Skills for Managers	3
IMED 1316	Web Page Design I °	3
	Approved Elective **	3
	Total Hours	**12**
	GRAND TOTAL	**42**

° This course has been designated as the capstone course.

† High School Articulated Courses.

*** Approved Electives: ARTC 2305, ARTV 1341, ARTV 2341, COMM 2311, ENGL 2314*

Education & Training

This 49-semester hour program leads to a Certificate of Completion and most courses in this certificate program can be applied toward the Associate of Applied Science degree.

Students completing the certificate program will have enough semester hours of credit under current rulings by the State Board for Educator Certification (SBEC) in order to obtain employment with a school district under the No Child Left Behind Act of 2001.

Admissions Requirements:

Students must complete the admissions requirements listed under "Admissions Information."

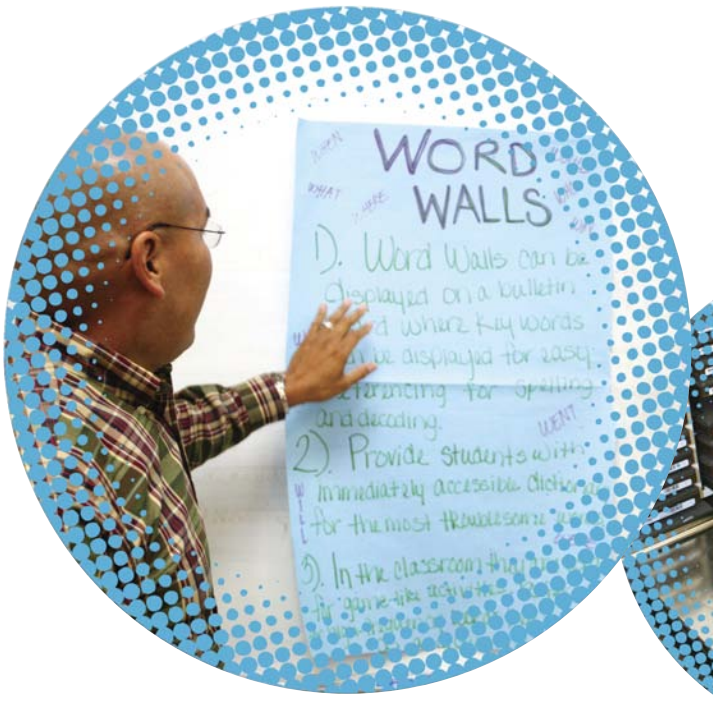
Notes:_____

COURSE NAME		CREDIT HOURS
Semester 1		
EDTC 1301	Educational System	3
EDTC 1341	Instructional Technology and Computer Applications	3
HIST 1301	U.S. History I †	3
HRPO 1311	Human Relations†	3
	Speech Elective (suggested SPCH 1315)	3
	Totals	**15**
Semester 2		
CDEC 1359	Children with Special Needs	3
EDTC 1311	Instructional Practices and Effective Learning Environment	3
HIST 1302	U.S. History II †	3
POFT 1301	Business English (or ENGL 1301) †	3
	Social / Behavioral Sciences Elective †	3
	Totals	**15**
Semester 3		
GOVT 2301	American Government I †	3
IMED 2301	Instructional Design I	3
TECA 1354	Child Growth & Development	3
MATH 1314	College Algebra * †	3
	Humanities/Fine Arts Elective †	3
	Totals	**15**
Semester 4		
EDTC 1164	Practicum: Teacher Assistant/Aide ° ‡	1
GOVT 2302	American Government II †	3
	Totals	**4**
	GRAND TOTAL	**49**

° This course has been designated as the capstone course

† High school articulated course

‡ Course with external experience



Machining Technology
Machinist

Machinists use machine tools, such as lathes, milling machines, and machining centers, to produce precision metal parts. Although they may produce large quantities of one part, precision machinists often produce small batches or one-of-a-kind items. They use their knowledge of the working properties of metals and their skill with machine tools to plan and carry out the operations needed to make machined products that meet precise specifications. Persons interested in becoming machinists should be mechanically inclined, have good problem-solving abilities, be able to work independently, and be able to do highly accurate work that requires concentration and physical effort.

The number of workers obtaining the skills and knowledge necessary to fill machinist jobs is expected to be less than the number of job openings arising each year from the need to replace experienced machinists who transfer to other occupations or retire, and from job growth.

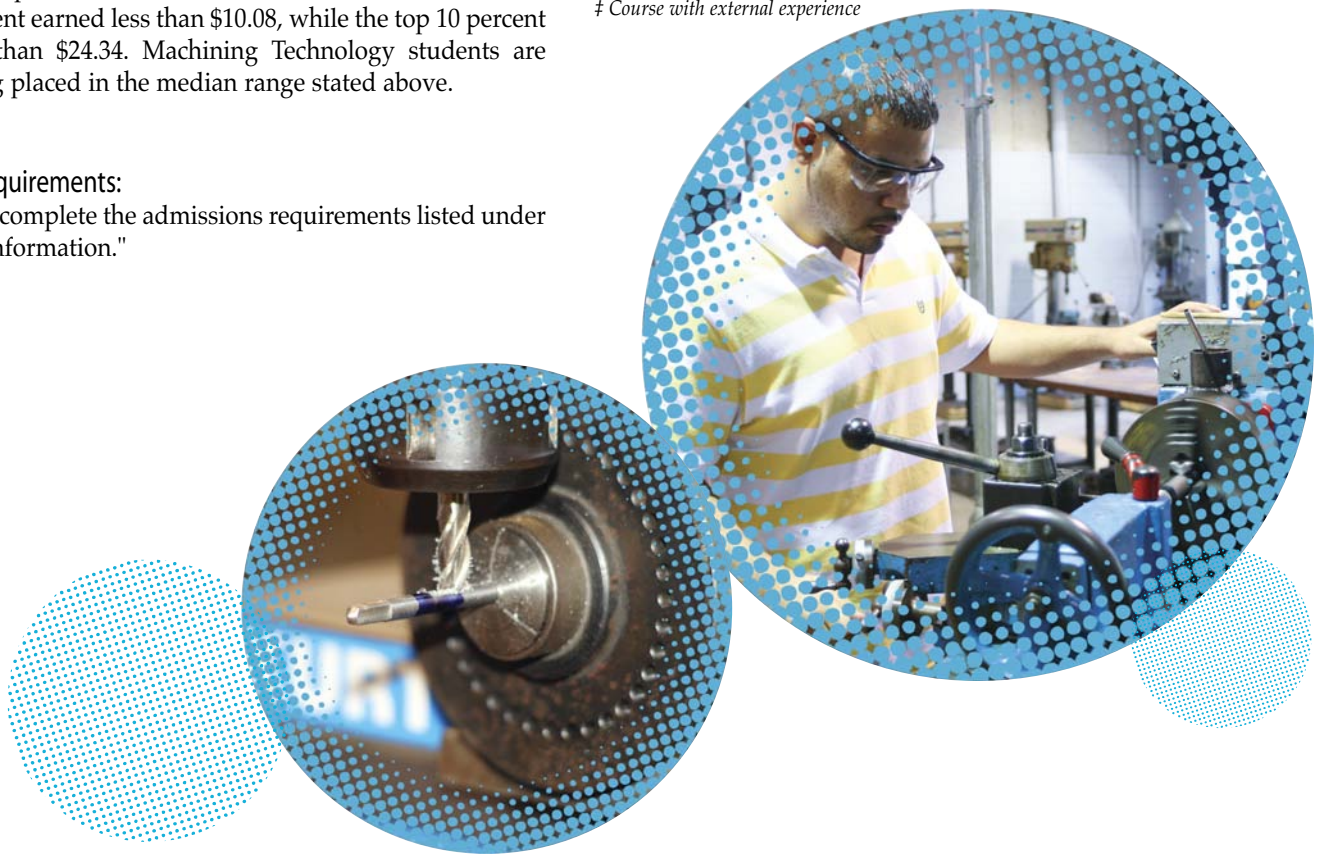
Due to modern production techniques, employers prefer machinists who have a wide range of skills and are capable of performing almost any task in a machine shop. Machinists can advance in several ways. Experienced machinists may become CNC programmers, tool and die makers, or mold makers. A few open their own shops.

Median hourly earnings of machinists were $16.33 in May 2004. The middle 50 percent earned between $12.84 and $20.33. The lowest 10 percent earned less than $10.08, while the top 10 percent earned more than $24.34. Machining Technology students are currently being placed in the median range stated above.

Admissions Requirements:
Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
MCHN 1302	Machinist II	3
MCHN 1338	Basic Machine Shop I †	3
MCHN 1343	Machine Shop Mathematics	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operation	3
MCHN 1320	Precision Tools & Measurement	3
MCHN 2303	Fundamentals of CNC Machine Controls	3
	Total Hours	**12**
Semester 3		
MCHN 1305	Metals & Heat Treatment	3
MCHN 1358	Intermediate Lathe Operations	3
MCHN 2302	Intermediate Milling Operations	3
MCHN 2335	Advanced CNC Machining °	3
	Total Hours	**12**
Exit Point: MACHINIST CERTIFICATE		**36**

° This course has been designated as the capstone course
† High school articulated course
‡ Course with external experience



Machining Technology
Toolmaker

Manufacturing

Toolmaker trainees learn to operate milling machines, lathes, grinders, wire electrical discharge machines, and other machine tools. They also learn to use hand tools for fitting and assembling gauges, and other mechanical and metal-forming equipment. In addition, they study metalworking processes, such as heat treating. Toolmakers makers must have good computer skills to work with CAD/CAM technology, CNC machine tools, and computerized measuring machines.

Because toolmakers must meet strict specifications—precision to one ten-thousandth of an inch is common—the work requires skill with precision measuring devices and a high degree of patience and attention to detail. Persons entering this occupation also should be mechanically inclined, able to work and solve problems independently, have strong mathematical skills, and be capable of doing work that requires concentration and physical effort.

Toolmakers play a key role in building and maintaining advanced automated manufacturing equipment. The number of workers receiving training in this occupation is expected to continue to be fewer than the number of openings created each year by toolmakers who retire or transfer to other occupations. Students that earn the Toolmaker Certificate are excellent candidates for Tool and Die apprenticeships.

Median hourly earnings of tool and die makers, according to the Bureau of Labor Statistics, were $20.55 in May 2004. The middle 50 percent earned between $16.70 and $25.93. The lowest 10 percent had earnings of less than $13.57, while the top 10 percent earned more than $31.19. Machining Technology students are currently being placed in the median range stated above.

Admissions Requirements:
Students must complete the admissions requirements listed under "Admissions Information."

COURSE NAME		CREDIT HOURS
Semester 1		
MCHN 1302	Machinist II	3
MCHN 1338	Basic Machine Shop I †	3
MCHN 1343	Machine Shop Mathematics	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operation	3
MCHN 1320	Precision Tools & Measurement	3
MCHN 2303	Fundamentals of CNC Machine Controls	3
	Total Hours	**12**
Semester 3		
MCHN 1305	Metals & Heat Treatment	3
MCHN 1358	Intermediate Lathe Operations	3
MCHN 2302	Intermediate Milling Operations	3
MCHN 2335	Advanced CNC Machining º	3
	Total Hours	**12**
Semester 4		
MCHN 1335	Grinders, Outside, Internal, Surface	3
MCHN 2337	Advanced Milling Operation	3
MCHN 2370	Mold, Tool & Die Making Lab	3
SPCH	Speech Elective †	3
	Total Hours	**12**
Semester 5		
MCHN 2372	Mold, Tool & Die Modification & Repair	3
MCHN 2447	Specialized Tools & Fixtures º **	4
WLDG 1206	Fundamentals of Gas Tungsten Processes	2
	Total Hours	**9**
Exit Point: TOOLMAKER CERTIFICATE		**57**

º This course has been designated as the capstone course
† High school articulated course
‡ Course with external experience
*** MCHN 2480 (Co-op ‡) may be taken in place of the capstone course*

Notes:_____

Health Science

Medical Assistant

Medical Assisting is a multi-skilled allied health profession. Medical assistants function as members of the health care delivery team, performing both administrative and clinical procedures.

Administrative duties may include scheduling and receiving patients, preparing and maintaining medical records, performing basic secretarial skills, insurance processing and billing, medical transcribing, handling telephone calls and writing correspondence, serving as a liaison between the physician and other individuals and managing practice finances. Clinical duties may include asepsis and infection control, taking patient histories and vital signs, performing first aid and CPR, preparing patients for procedures, assisting the physician with examination and treatments, collecting and processing specimens, performing selected diagnostic tests, and preparing and administering medications as directed by the physician.

Students must maintain a numerical average of 78 or better in each Medical Assisting curriculum course.

Admissions Requirements:

In addition to admissions requirements listed under "Admissions Information," the applicant must complete an application to the program, interview with the Department Chair, and submit TASP & Health Placement Test Scores.

Clinical Entry Requirements:

Before enrolling in clinical study, a student must have on file with the department the following materials:

1. Results of prescribed physical examination.
2. Proof of required immunizations.
3. Proof of liability insurance of at least $1 million, health and accident insurance and needlestick insurance (available through TSTC).

Notes:_____

COURSE NAME		CREDIT HOURS
Semester 1		
BIOL 2401	Anatomy & Physiology I	4
HITT 1305	Medical Terminology I †	3
MDCA 1417	Procedures in a Clinical Setting	4
HRPO 1311	Human Relations †	3
	Total Hours	**14**
Semester 2		
BIOL 2402	Anatomy & Physiology II	4
HITT 1301	Health Data Content & Structure	3
MDCA 1348	Pharmacology & Administration of Medications	3
MDCA 1352	Medical Assistant Laboratory Procedures	3
	Total Hours	**13**
Semester 3		
MDCA 1343	Medical Insurance	3
MDCA 1402	Human Disease/Pathophysiology	4
MRMT 1307	Medical Transcription I	3
PLAB 1323	Phlebotomy	3
	Total Hours	**13**
Semester 4		
HITT 1211	Computers in Health Care	2
MDCA 1205	Medical Law & Ethics	2
MDCA 1460	Clinical: Medical/Clinical Assistant ‡	4
PSYC 2301	General Psychology †	3
POFT 1301	Business English †	3
	Total Hours	**14**
	GRAND TOTAL	**54**

° This course has been designated as the capstone course

† High school articulated course

‡ Course with external experience

Medical Information Specialist/Transcriptionist

As the reliance on technology continues to expand in medical facilities, the role of the medical information specialist has greatly evolved. Because of this technology surge, the demand for well-trained medical information specialists continues to exceed the supply.

In this program, students will develop skills required of a medical information specialist, such as assembling, analyzing, coding, filing, indexing, and billing of health records, as well as developing skills essential to the medical transcriptionist. Students will demonstrate proficiency of these skills during their practicum experience.

A multitude of opportunities await the MIST graduate in various medical facilities, including the opportunity of working from home, once experience is obtained. Medical information specialists focus on the data entry, collection, and maintenance of patient health information, while medical transcriptionists accurately transcribe dictated medical reports documenting the patient's condition as well as treatment.

The student must maintain a numerical average of 78 or better in each required Medical Information Specialist/Transcriptionist course to receive the Certificate of Completion.

Admissions Requirements:

In addition to admissions requirements listed under "Admissions Information," manual dexterity for typing, handling records, files and other documents is also necessary. An interview with the Department Chair is required, as well as completion of the MIS/T program orientation prior to registration of classes.

Practicum Entry Requirements:

Before enrolling in practicum courses, a student must have on file with the department the following materials:

1. The ability to satisfy the industry standards for the program.
2. Proof of required immunizations.
3. Proof of liability insurance of at least $1 million (available through TSTC).
4. Proof of health and accident insurance (available through TSTC).
5. Proof of auto liability.
6. Proof of current driver's license.
7. Passage of a criminal background check (available through TSTC).
8. Passage of a drug and alcohol screening (required by various medical facilities)

Notes:_____

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Health Science

COURSE NAME		CREDIT HOURS
Semester 1		
BIOL 2401	Anatomy & Physiology I †	4
HITT 1305	Medical Terminology †	3
POFT 1227	Introduction to Keyboarding †	2
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
BIOL 2402	Anatomy & Physiology II †	4
HITT 1301	Health Data Content and Structure	3
MDCA 1343	Medical Insurance	3
MRMT 1307	Medical Transcription I	3
	Total Hours	**13**
Semester 3		
MDCA 1402	Human Disease/Pathophysiology	4
SPCR 1301	Communications for the Trades	3
	Total Hours	**7**
Semester 4		
HITT 1166	Practicum - Health Info/Medical Records º ‡	1
HITT 1342	Ambulatory Coding	3
MRMT 1211	Computers in Health Care	2
MRMT 2333	Medical Transcription II	3
	Total Hours	**9**
	GRAND TOTAL	**41**

º This course has been designated as the capstone course
†High school articulated course
‡Course with external experience

Nurse Assistant

Employment of nurse assistants is expected to grow at an extremely rapid rate in response to the long-term care needs of a growing and aging population. Modern medical technology has also increased the need to provide care to those who never fully recover. Nurse assistants provide a variety of support services for other health-care professionals. Their primary responsibility is to provide basic bedside care, such as bathing, making beds, taking vital signs, assisting in feeding, serving trays, answering call lights and ambulating patients.

Students successfully completing the first semester of this program are eligible to take the Texas Department of Aging and Disability Services Certified Nurse Assistant skills and written exam to be listed on the Texas Registry as a Texas certified Nurse Assistant.

In this program, students will learn to:

- Provide basic bedside nursing care
- Work with nurses, doctors and other coworkers
- Apply skills in clinical practice at a hospital or nursing home

Students must maintain a numerical average of 78 or better in each Nurse Assistant curriculum course to graduate from the program and receive the Certificate of Completion.

The Nurse Assistant program certificate is offered only through dual enrollment or continuing education.

Admissions Requirements:

In addition to admissions requirements listed under "Admissions Information," the applicant must complete an application to the programs and interview with the Department Chair.

Clinical Entry Requirements:

Before enrolling in clinical or cooperative study, a student must have on file with the department the following materials:

1. Results of prescribed physical examination.
2. Proof of required immunizations.
3. Proof of liability insurance of at least $1 million, health and accident insurance and needlestick insurance (available through TSTC).

Notes:_____

COURSE NAME		CREDIT HOURS
Semester 1		
HITT 1305	Medical Terminology †	3
POFT 1301	Business English (or ENGL 1301) †	3
TECM 1301	Industrial Mathematics (or MATH 1314) †	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
NURA 1301	Nurse Aide for Health Care Organizations I †	3
NURA 1360	Clinical - Nursing Assistant / Aide and Patient Care Assistant ° ‡†	3
	Total Hours	**6**
	GRAND TOTAL	**18**

° This course has been designated as the capstone course
†High school articulated course
‡Course with external experience

Telecommunications Technology
Specialist

Information Technology

Driven by a demand for instantly accessible information, the telecommunications industry is profoundly transforming the world. Voice, data and video communications across a worldwide network are creating opportunities that did not exist a decade ago. Preparing a workforce to compete in this global marketplace is today's major challenge for the telecommunications industry.

The Telecommunications Technology program is designed to prepare students for the communications industry through educational training in the installation, operation and maintenance of communications systems using the full range of communication transport systems. The technologies include underground, above ground, cellular, fiber-optics, microwave systems, computer networks and satellites for communicating information.

Admissions Requirements:
Students must complete the admissions requirements listed under "Admissions Information."

Notes:_____

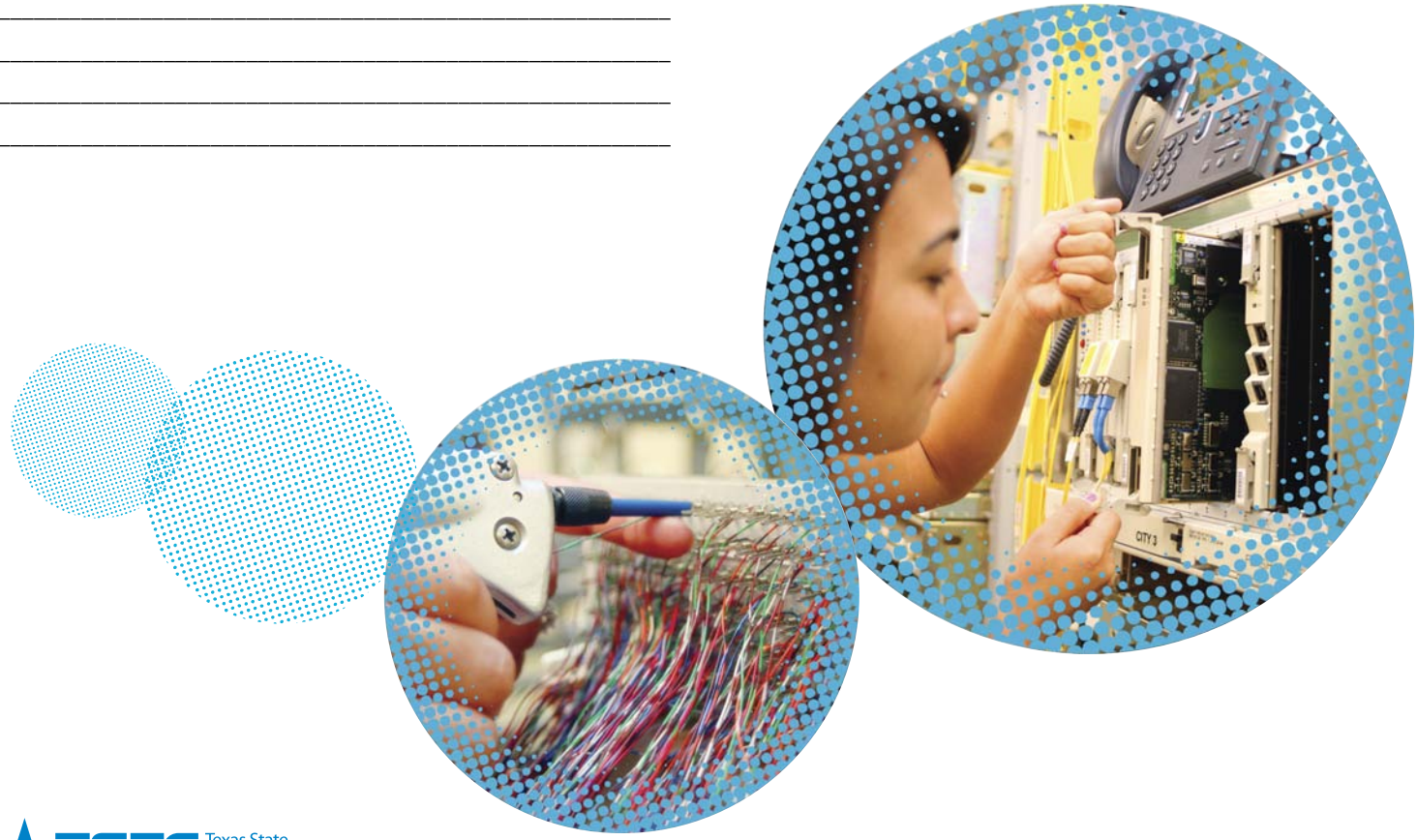
COURSE NAME		CREDIT HOURS
Semester 1		
CETT 1303	DC Circuits (or IEIR 1302) ‡	3
EECT 1303	Introduction to Telecommunications †	3
TECM 1303	Technical Mathematics (or MATH 1314) †	3
HRPO 1311	Human Relations †	3
	Total Hours	**12**
Semester 2		
CETT 1305	AC Circuits (or IEIR 1304) †	3
CETT 1325	Digital Fundamentals	3
CSIR 1303	Telecommunications System Installer	3
EECT 1300	Technical Customer Service	3
POFT 1301	Business English (or ENGL 1301)	3
	Total Hours	**15**
Semester 3		
CSIR 1359	Digital Data Communication	3
CSIR 1391	Special Topics	3
CSIR 2351	Fiber Optic Comm. System Installation & Repair	3
EECT 1307	Convergent Technologies	3
EECT 1342	Telecommunications Outside Plant º **	3
	Total Hours	**15**
	GRAND TOTALS	**42**

º This course has been designated as the capstone course

†High school articulated course

‡Course with external experience

***EECT 1380 or EECT 1680 (Co-op) may be taken in place of the capstone course*



Vocational Nursing

The licensed vocational nurse (LVN), an important member of the medical team, may gather information, access and provide direct care for the sick, injured, convalescent, and disabled under the direction of physicians and registered nurses. LVNs generally work in acute and long-term care facilities or they may work in clinics, be employed as utilization reviewers who evaluate medical records in hospitals and doctors' offices, plus many other health-related areas.

LVNs care for patients in many ways. Often, they provide basic bedside care. Experienced LVNs may supervise nursing assistants and aides.

As part of their work, LVNs collect samples for testing, perform routine laboratory tests, and record food and fluid intake and output. They clean and monitor medical equipment. Sometimes, they help physicians and registered nurses perform tests and procedures. Some LVNs help to deliver, care for, and feed infants.

LVNs also monitor their patients and report adverse reactions to medications or treatments. LVNs gather information from patients, including their health history and how they are currently feeling. They may use this information to complete insurance forms, pre-authorizations, and referrals, and they share information with registered nurses and doctors to help determine the best course of care for a patient. LVNs often teach family members how to care for a relative or teach patients about good health habits. Most LVNs are generalists and work in all areas of health care. However, some work in a specialized setting, such as a nursing home, a doctor's office, or in home health care. LVNs in nursing care facilities help to evaluate residents' needs, assist in developing care plans, and supervise the care provided by nursing aides.

In Texas, LVNs are permitted to administer prescribed medicines, start intravenous fluids, and provide care to ventilator-dependent patients. According to the Bureau of Labor Statistics, employment of LVNs is expected to grow 14 percent between 2006 and 2016, faster than the average for all occupations, in response to the long-term care needs of an increasing elderly population and the general increase in demand for health care services.

Nursing has always been emotionally rewarding; now with signing bonuses of up to $5,000 and average annual salaries of $42,620, it is also financially rewarding.

Admissions Requirements:

Students must complete the admissions requirements listed under "Admissions Information."

Health Science

COURSE NAME		CREDIT HOURS
Prerequisite Courses		
HPRS 1204	Basic Health Profession Skills	2
BIOL 2401	Anatomy & Physiology I	4
BIOL 2402	Anatomy & Physiology II	4
ENGL 1301	Composition I	3
HITT 1305	Medical Terminology †	3
HRPO 1311	Human Relations †	3
	Total Hours	**19**
Semester 1		
RNSG 1301	Pharmacology & Administration of Meds	3
VNSG 1402	Applied Nursing Skills I	4
VNSG 1304	Foundations of Nursing	3
VNSG 1261	Introductory Clinical-Practical Nurse	2
PSYC 2314	Lifespan Growth & Development	3
	Total Hours	**15**
Semester 2		
VNSG 1306	Maternal Newborn Nursing	3
VNSG 1329	Medical/Surgical Nursing	3
VNSG 2413	Applied Nursing Skills II	4
VNSG 1462	Intermediate Clinical – Practical Nurse	4
	Total Hours	**14**
Semester 3		
VNSG 1119	Professional Development	1
VNSG 1307	Pediatric Nursing	3
VNSG 1332	Medical Surgical Nursing II °	3
VNSG 2463	Advanced Clinical Practical Nurse °	4
	Total Hours	**11**
	GRAND TOTAL	**59**

° This course has been designated as a capstone course.

† Course Articulated with High School.

Welding Technology
Combination Welding

Manufacturing

The variety of jobs available to welding technicians is increasing due to the number of new inventions and technical advances using a wide variety of metal alloys and non-metallic materials that can be joined through the welding process. Students in this program will develop knowledge of metal properties and the different welding techniques used to join metals.

In this program, students will learn to:

- Use various welding processes, including oxyacetylene welding, gas tungsten arc, gas metal arc and other sophisticated welding processes
- Perform welding in all positions, with fillet and groove welds
- Plan, design and fabricate welded projects

Admissions Requirements:

Students must complete the admissions requirements listed under "Admissions Information."

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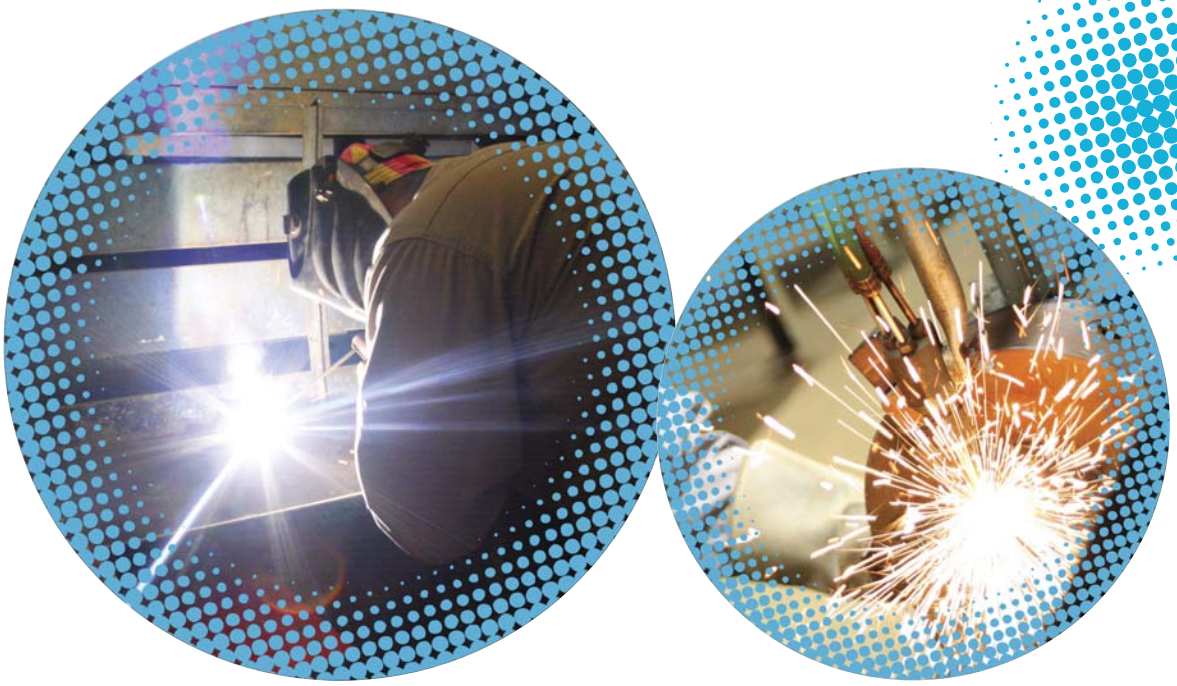
COURSE NAME		CREDIT HOURS
Semester 1		
DFTG 1325	Blueprint Reading and Sketching	3
WLDG 1323	Welding Safety, Tools and Equipment	3
WLDG 1421	Introduction to Welding Fundamentals †	4
HRPO 1311	Human Relations †	3
	Total Hours	**13**
Semester 2		
POFT 1301	Business English (or SPCH elective) †	3
WLDG 1317	Introduction to Layout and Fabrication	3
WLDG 1430	Introduction to Gas Metal Arc Welding (GMAW)	4
WLDG 1457	Intermediate Shielded Metal Arc Welding (SMAW)	4
	Total Hours	**14**
Semester 3		
WLDG 1312	Introduction to Flux Cored Welding	3
WLDG 1434	Introduction to Gas Tungsten Arc Welding (GTAW)	4
WLDG 1435	Introduction to Pipe Welding	4
WLDG 2443	Advanced Shielded Metal Arc Welding (SMAW) ° **	4
	Total Hours	**15**
	GRAND TOTAL	**42**

° This course has been designated as a capstone course.

† Course Articulated with High School.

*** WLDG 2480 (Co-op ‡) may be taken in place of the capstone course*



Field of Study

General Information

Fields of Study are provided for students who plan to transfer to a four-year college or university in academic areas for which TSTC Harlingen does not offer Associate of Science (A.S.) transfer degrees. Students completing a field of study here will have the opportunity to transfer to other public colleges and universities in the state in order to complete their bachelor's and other advanced degrees.

According to the rules of the Texas Higher Education Coordinating Board: "If a student successfully completes a field of study curriculum developed by the Board, that block of courses may be transferred to a [state] general academic teaching institution and must be substituted for that institution's lower-division requirements for the degree program for the field of study into which the student transfers, and the student shall receive full academic credit toward the degree program for the block of courses transferred." *§4.32(b) Field of Study Curricula*

The General Education Core accounts for a minimum of 48 semester credit hours of the field of study curriculum. The core curriculum guidelines from the Texas Higher Education Coordinating Board "are predicated on the judgment that a series of basic intellectual competencies – reading, writing, speaking, listening, critical thinking, and computer literacy – are essential to the learning process in any discipline and thus should inform any core curriculum." This core is designed to provide students a general education in communication, humanities and fine arts, social and behavioral sciences, and mathematics and natural sciences. From this group of classes, students develop the understanding, attitudes and values that are necessary for effective, responsible, and productive living in today's society. Details about the General Education Core can be found in the Curriculum – General Education section.

General Requirements

The following information outlines the requirements for an Associate of Science degree. Additional information can be found in the Admissions and Records and the Scholastic Regulations sections of this catalog.

1. Complete admission requirements.
2. Complete curriculum requirements:
   a. The student must complete the minimum credit hours as specified for the field of study. Requirements are listed with the field of study descriptions in this catalog.
   b. The student must complete the General Education Core. Be sure to consult the particular degree plan, the catalog of the university you wish to transfer to, and an advisor to see which particular General Education Core courses are appropriate for a particular field of study or university curriculum.
3. Students must meet all scholastic guidelines and specific field of study requirements. Additional information is included in the Scholastic Regulations section of this catalog. Some fields of study have specific requirements. More information is listed in the respective field of study description.
4. Discharge all financial obligations to TSTC.

General Education

TSTC offers general education and developmental courses approved by the Texas Higher Education Coordinating Board to support students. More information on course content and lecture and lab hours is included in the Course Descriptions section of this catalog. Academic courses are part of the Texas Common Course Numbering System (TCCNS) and are transferable individually to other public colleges and universities in the state. Completion of the General Education Core at TSTC Harlingen will allow students to transfer the core as a block of classes and replace the General Education Core at another Texas public college or university.

Learning Framework Course (EDUC 1100 or PSYC 1100)

The student success course (EDUC 1100 or PSYC 1100 – Learning Framework) is not a college requirement for a field of study. However, students are urged to take the course to help better prepare them to succeed in their college studies. Students may take either the EDUC 1100 or the PSYC 1100 course. The course is intended to help students to persist in their studies and complete them in a timely manner. It provides models of strategic learning, cognition, and motivation as the basis for the introduction of academic learning strategies. Ultimately, students are expected to integrate and apply these learning skills to become effective learners in their own academic programs. Also, students will be able to learn and apply the appropriate computer skills to demonstrate how life-long learning is an ongoing part of one's development, especially in this rapidly changing age of technology and information. Students are urged to take this course as early as possible in their college studies.

Field of Study in Business

Together the Academic Core with the Field of Study in Business is designed for students who intend to major in Business or a related field at another college or university.

Students in this field of study are preparing for experiences in administration, accounting, marketing and sales, management, and internal auditing.

The Field of Study in Business includes additional courses in accounting, economics, business computer literacy, and business mathematics.

Admissions Requirements:

Students must complete all the requirements for the Academic Core before they can qualify for the Field of Study in Business designation. Field of study courses can be taken while students are taking Academic Core classes.

Students seeking to complete this Field of Study should consult with an academic advisor to avoid taking unnecessary courses as part of the Academic Core.

Business, Management & Administration

COURSE NAME		CREDIT HOURS
Semester 1		
ENGL 1301	Composition I	3
BUSI 1301	Introduction to Business (or MATH 1325)*	3
BCIS 1305	Business Computer Applications	3
ECON 2301	Principles of Macroeconomics	3
	Total Hours	**12**
Semester 2		
ENGL 1302	Composition II	3
	Science Course (BIOL 1308/1108 or BIOL 1309/1109 or BIOL 1406 or BIOL 1407 or BIOL 1408 or BIOL 1409 or BIOL 2301 or BIOL 2302 or BIOL 2401 or BIOL 2402 or BIOL 2421 or CHEM 1405 or CHEM 1411 or PHYS 1401 or PHYS 2425)	4
GOVT 2301	American Government I	3
	Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)	3
	Math Course (MATH 1314 or MATH 1316 or MATH 1332 or MATH 1350 or MATH 2312 or MATH 2318 or MATH 2320 or MATH 2342 or MATH 2413 or MATH 2414 or MATH 2415)	3
	Total Hours	**16**
Semester 3		
	Science Course (BIOL 1308/1108 or BIOL 1309/1109 or BIOL 1406 or Biol 1407 or BIOL 1408 or BIOL 1409 or BIOL 2301 or BIOL 2302 or BIOL 2401 or BIOL 2402 or BIOL 2421 or CHEM 1405 or CHEM 1411 or CHEM 1412 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426)	4
GOVT 2302	American Government II	3
ACCT 2401	Principles of Accounting I	4
HIST 1301	U. S. History I (to 1877)	3
	Total Hours	**14**
Semester 4		
ECON 2302	Principles of Microeconomics	3
HIST 1302	U. S. History II (since 1877)	3
ACCT 2402	Principles of Accounting II	4
SPAN 1311	Beginning Spanish I (or SPAN 1411)	3
	Total Hours	**13**
Semester 5		
SPAN 1312	Beginning Spanish II (or SPAN 1412)	3
	Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)	3
SPCH	Speech Course (SPCH 1315 or SPCH 1318 or SPCH 13213)	3
	Humanities Course (ANTH 2346 or ENGL 2321 or ENGL 2326 or ENGL 2331 or PHIL 1301 or PHIL 1304 or PHIL 2306 or SOCI 2319 or SPAN 2323 or SPAN 2324)	3
	Total Hours	**12**
	GRAND TOTAL	**67**

** Pending approval*

Field of Study in Communication

Together the Academic Core with the Field of Study in Communication is designed for students who intend to major in General Communication or a related field at another college or university.

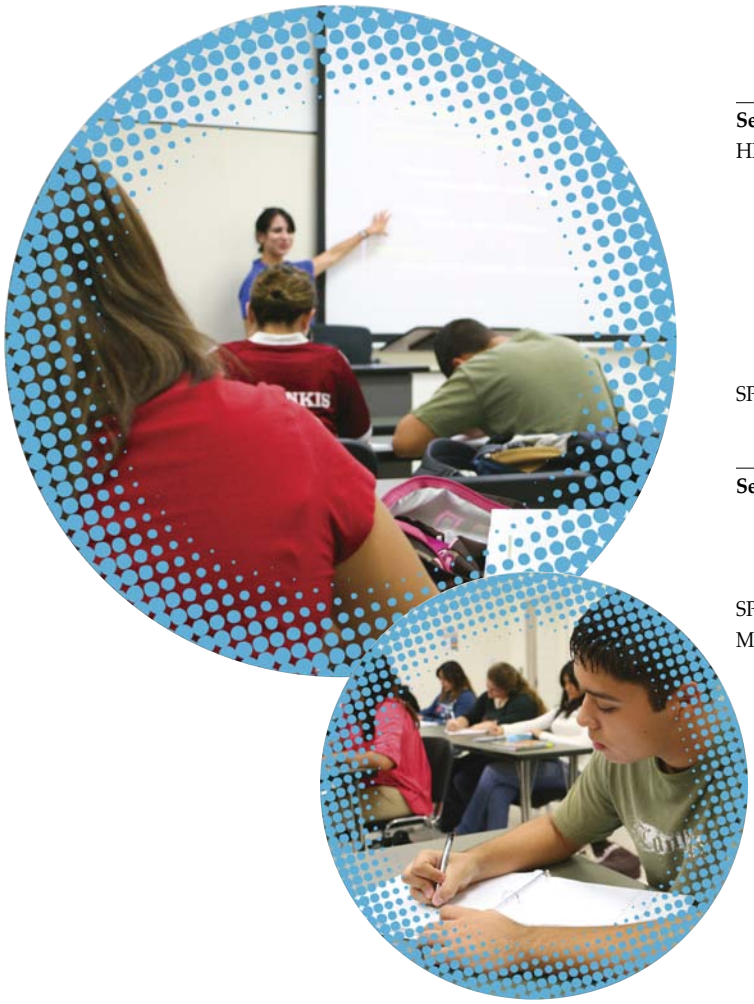
Students in this field of study are preparing for experiences in any one of the following four areas: advertising and public relations, journalism and mass communication, radio and television broadcasting and broadcast journalism, and general speech communication.

The Field of Study in Communication includes additional courses in intrapersonal communication, business and professional communication, small group communication and public speaking.

Admissions Requirements:

Students must complete all the requirements for the Academic Core before they can qualify for the Field of Study in Communication designation. Field of study courses can be taken while students are taking Academic Core classes.

Students seeking to complete this Field of Study should consult with an academic advisor to avoid taking unnecessary courses as part of the Academic Core.



COURSE NAME		CREDIT HOURS
Semester 1		
	Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)	3
ENGL 1301	Composition I	3
SPAN 1311	Beginning Spanish I (or SPAN 1411)	3
SPCH 1311	Introduction to Speech	3
	Total Hours	**12**
Semester 2		
ENGL 1302	Composition II	3
GOVT 2301	American Government I	3
SPAN 1312	Beginning Spanish II (or SPAN 1412)	3
SPCH 1318	Interpersonal Communication	3
	Total Hours	**12**
Semester 3		
	Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)	3
GOVT 2302	American Government II	3
HIST 1301	U. S. History I (to 1877)	3
	Science Course (BIOL 1308 or BIOL 1309 or BIOL 1406 or BIOL 1407 or BIOL 1408 or BIOL 1409 or BIOL 2301 or BIOL 2302 or BIOL 2401 or BIOL 2402 or BIOL 2421 or CHEM 1405 or CHEM 1411 or PHYS 1401 or PHYS 2425)	3
	Total Hours	**12**
Semester 4		
HIST 1302	U. S. History II (since 1877)	3
	Science Course (BIOL 1308 or BIOL 1309 or BIOL 1406 or BIOL 1407 or BIOL 1408 or BIOL 1409 or BIOL 2301 or BIOL 2302 or BIOL 2401 or BIOL 2402 or BIOL 2421 or CHEM 1405 or CHEM 1411 or CHEM 1412 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 24263)	3
	Social/Behavioral Course (ECON 2301 or PSYC 2301 or PSYC 2314 or SOCI 1301 or SOCI 1306 or SOCI 2319)	3
SPCH	Speech Elective (SPCH 1315 or SPCH 1321)	3
	Total Hours	**12**
Semester 5		
	Humanities Course (ANTH 2346 or ENGL 2321 or ENGL 2326 or ENGL 2331 or PHIL 1301 or PHIL 1304 or PHIL 2306 or SOCI 2319 or SPAN 2323 or SPAN 2324	3
SPCH 2333	Discussion and Small Group Communication	3
MATH 1314	College Algebra	3
	Total Hours	**9**
	GRAND TOTAL	**57**

COURSE DESCRIPTIONS

Texas State Technical College™

Course Descriptions

Please note: In the parenthesis following the course number and title of each course description are the lecture hours per week - lab hours per week - credit hours per course (ex: 2-4-3 is 2 lecture-4 lab-3 credit).

Agricultural Technology

ACCT 2401 (see Transferable Academic)

AGAH 1347 Animal Reproduction (1-6-3)
Study of organs, functions, endocrinology, and common management practices related to reproduction.

AGAH 1401 Animal Science (2-6-4)
An introductory survey of the scientific principles and applied practices related to livestock production. Topics include genetics, animal breeding and selection, anatomy and physiology, nutrition, reproduction, health, and marketing of livestock and livestock products.

AGAH 2413 Principles of Feeds & Feeding (2-6-4)
Study of the role and application of feed nutrients and additives. Topics include comparative aspects of digestion, absorption, and metabolism of nutrients. Emphasis on identification of nutrient requirements and formulation of dietary feeding regiments.

AGCR 1341 Forage & Pasture Mgmt (1-3-2)
Study of the production and management of forage crops and pastures including establishment fertilization, weed control, grazing systems, hay, seed production, and harvesting.

AGCR 1403 Crop Science (2-6-4)
Fundamentals of the development, production, and management of field crops. Topics include the classification and distribution of field crops, botany, soils, plant breeding, pest management, and harvesting.

AGCR 2305 Entomology (2-4-3)
Study of the morphology, physiology, and classification of the common insect orders and related arthropods with emphasis on species of economic or biological importance. Emphasis on integrated pest management concepts and proper use of pesticides.

AGCR 2313 Soil and Water Conservation Management (1-6-3)
Study of physical and chemical soil deterioration and loss, water conservation, and principles for protection and maintenance of these resources. Topics include plant/water relationships, water conservation methods, basic terrace engineering principles, sediment loss, and land use plants.

AGMG 1300 Agricultural Policies, Safety & Codes (1-6-3)
Study of safety standards, government regulations, and codes as they apply to agriculture. Emphasis on the application of current safety and health standards, and compliance with state and federal regulations.

AGMG 1311 Intro to Agribusiness (2-3-3)
Introduction to agribusiness management, marketing and sales in the free enterprise system. Topics include economic principles, finance, risk management, record keeping, budgeting, employee/employer responsibilities, communications human relation skills, and agricultural career opportunities.

AGMG 1318 Intro to Agricultural Economics (2-3-3)
Study of the fundamental economic principles and their application to the problems of the industry of agricultural.

AGMG 1344 Agricultural Records Management (2-3-3)
Examination of the principles of agricultural records and bookkeeping with emphasis on utilization and interpretation of farm and ranch accounts.

AGMG 2312 Marketing of Agricultural Products (2-3-3)
Study of operations in the movement of agricultural commodities from producer to consumer including the essential marketing functions of buying, selling, transporting, storing, financing, standardizing, pricing, and risk bearing.

AGMG 2382 COOP: Farm and Ranch Management (1-19-3)
AGMG 2682 COOP: Farm and Ranch Management (1-19-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

BIOL 1408, BIOL 1409 (see Math/Natural Sciences)

CHEM 1405, CHEM 1411 (see Math/Natural Sciences)

ENGL 1301 (see English/Communications)

EPCT 1211 (see Chemical-Environmental Technology)

HRPO 1311 (see Behavioral/Social Sciences)

MATH 1314 (see Math/Natural Sciences)

POFT 1301 (see Related Instruction)

PSYC 2301 (see Behavioral/Social Sciences)

HRPO 1311 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

SPCR 1301 (see Related Instruction)

TECM 1303 (see Related Instruction)

Air Conditioning and Refrigeration Technology

DFTG 1313 (see Computer Drafting & Design Technology)

ENGL 1301 (see English/Communications)

HART 1300 Hvac Duct Fabrication (2-4-3)
Principles of electricity as required by HVAC technicians including proper use of test equipment, electrical circuits, and component theory and operation.

HART 1401 Basic Electricity for HVAC (2-6-4)
Principles of electricity as required by HVAC technicians including proper use of test equipment, electrical circuits, and component theory and operation.

HART 1403 A/C Control Principles (2-6-4)
A basic study of HAVC and refrigeration controls; troubleshooting of control components; emphasis on use of wiring diagrams to analyze high and low voltage circuits; a review of Ohm's law as applied to air conditioning controls and circuits.

HART 1407 Refrigeration Principles (2-6-4)
An introduction to the refrigeration cycle, basic thermodynamics, heat transfer theory, temperature/pressure relationship, safety, refrigeration containment, and refrigeration components.

HART 1441 Residential Air Conditioning (2-6-4)
A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems.

HART 1445 Gas and Electrical Heating (2-6-4)
A study of the procedures and principles used in servicing heating systems including gas fired furnaces and electric heating systems.

HART 2380 COOP: Heating, A/C, & Refrigeration Tech (1-19-3)
HART 2680 COOP: Heating, A/C & Refrigeration Tech (1-39-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be paid or unpaid learning experience.

HART 2381 COOP: Heating, A/C, & Refrigeration (1-19-3)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision while the lecture is provided by the college faculty or by other individuals under supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

HART 2436 Air Conditioning Troubleshooting (2-6-4)
An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests.

HART 2438 A/C Installation & Startup (2-6-4)
A study of air conditioning system installation, refrigerant piping, condensate disposal, and air cleaning equipment with emphasis on startup, performance testing, service, troubleshooting, and repair techniques.

HART 2441 Commercial Air Conditioning (2-6-4)
A study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less.

HART 2442 Commercial Refrigeration (2-6-4)
Theory of and practical application in the maintenance of commercial refrigeration; medium and low temperature applications and ice machines.

HART 2445 Residential A/C System Design(2-6-4)
Study of the properties of air and results of cooling, heating, humidifying or dehumidifying; heat gain and heat loss calculations including equipment selection and balancing the air system.

MAIR 1449 Refrigerators, Freezers, Wind A/C (2-6-4)
Theory, sequence of operation, components and repair, electrical schematics, and troubleshooting electronic components in air conditioning and refrigeration. Emphasis on safety for the electrical, mechanical, and sealed systems.

HRPO 1311 (see Behavioral/Social Sciences)

POFT 1301 (see Related Instruction)

SPCH (see Speech Electives)

TECM 1303 (see Related Instruction)

Allied Health Related Skills

HPRS 1101 Intro to Health Professions (1-0-1)
An overview of the roles of the various members of the health care system, educational requirements, and issues affecting the delivery of health care.

HPRS 1204 Basic Health Profession Skills (1-4-2)
A study of the concepts that serve as the foundation for health profession courses. Topics include client handling and safety issues, basic client monitoring, and health documentation methods.

HPRS 1205 Medical Law/Ethics Health Professionals (2-0-2)
Introduction to the relationship between legal aspects and ethics in health care, with emphasis on responsibilities of health care professionals.

HPRS 2300 Pharmacology/Health Professions (3-0-3)
A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages.

Auto Collision Technology

ABDR 1207 Auto Body Welding (1-4-2)
A study of industry and standard welding and cutting procedures.

ABDR 1311 Vehicle Measurement and Damage Repair Procedures (2-4-3)
Introduction to damaged vehicle measurement and alignment systems.

ABDR 1331 Basic Refinishing (2-4-3)
An introduction to current refinishing products, shop safety, and equipment used in the automotive refinishing industry. Painting of trim and replacement parts included. Emphasis on surface preparation, masking techniques, and refinishing of trim and replacement parts.

ABDR 1349 Automotive Plastic and Sheet Molded Compound Repair (2-4-3)
A comprehensive course in repair of interior and exterior plastics including the use of various types of adhesives and state of the art plastic welding.

ABDR 1419 Basic Metal Repair (2-6-4)
Perform basic metal straightening procedures; utilize basic body shop hand tools and appropriate plastic filler application techniques; and comply with personal and environmental safety practices.

ABDR 1441 Structural Analysis and Damage Repair I (2-6-4)
Expanded training in the roughing and shaping procedures on automotive sheet metal necessary to make satisfactory minor body repairs. Emphasis on the alignment of component parts such as doors, hood, front-end assemblies, and deck lids.

ABDR 1442 Structural Analysis and Damage Repair II (2-6-4)
Continuation of general repair and replacement procedures for damaged structural parts and collision damage.

ABDR 1455 Minor Metal Repair (2-6-4)
A course in sheet metal alignment principles using mechanical and hydraulic equipment. Emphasis on attachment devices used to straighten and align exterior body panels.

ABDR 1458 Intermediate Refinishing (2-6-4)
Expanded training in mixing and spraying of automotive topcoats. Emphasis on formula ingredient, reducing, thinning and special spraying techniques. Introduction to partial panel refinishing techniques and current industry paint removal techniques.

ABDR 2257 Collision Repair Shop Management (1-2-2)
A study of methods and equipment used in state of the art collision repair shops to improve management functions and profitability.

ABDR 2345 Vehicle Safety Systems (2-4-3)
Theory and operation of air bags and other passive and non-passive restraint systems including automotive anti-lock systems and the latest technology and diagnostic methods used in the collision repair industry.

ABDR 2353 Color Analysis & Paint Matching (2-4-3)
Advanced course in color theory, color analysis, tinting, and advanced blending techniques for commercially acceptable paint matching.

ABDR 2370 Collision Damage Analysis/Rpt (2-4-3)
This course is a detailed study of manual and computerized systematic approaches for inspecting, checking, identifying, measuring and determining damage. A detailed study of preparing and interpreting computerized damage reports is part of this course.

ABDR 2380 COOP: AUB Collision & Repair Technology/Technician (1-19-3)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

ABDR 2431 Structural Analysi Dam (2-6-4)
Advanced concepts in the application of theories of auto body repair and replacement of major body units.

ABDR 2441 Major Collision Repair and Panel Replacement (2-6-4)
Instruction in preparation of vehicles for major repair processes. This course covers interpreting information from damage reports, planning repair sequences, selecting appropriate tools, and organizing removed parts for reinstallation.

ABDR 2449 Advanced Refinishing I (2-6-4)
Skill development in multi-stage refinishing including base coat/clear coat techniques. Further development in identification of problems and solutions in color matching and partial panel refinishing.

ABDR 2451 Specialized Refinishing Techniques (2-6-4)
Advanced topics in specialty automotive refinishing. Emphasis on refinishing of vinyl tops, interior plastics, fiberglass, and aluminum and galvanized panels as well as custom graphics and current industry innovations.

ABDR 2680 COOP: AUB Collision & Repair Technology/Technician (1-39-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

ENGL 1301 (see English/Communications)

MATH 1314, MATH 1332 (see Math/Natural Sciences)

POFT 1301 (see Related Instruction)

PSYT 1303 (see Related Instruction)

HRPO 1311 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

TECM 1301 (see Related Instruction)

Automotive Technology

AUMT 1201 Intro Theory of Automotive Tech (1-3-2)
An introduction to the automobile industry including automotive history, safety practices, shop equipment and tools, vehicle subsystems, service publications, fasteners, professional responsibilities, and automobile maintenance.

AUMT 1301 Introduction & Theory of Automotive Technology (2-2-3)
An introduction to the automobile industry including automotive history, safety practices, shop equipment and tools, vehicle subsystems, service publications, fasteners, professional responsibilities, and automobile maintenance.

AUMT 1380 COOP: Automobile/Automotive Mechanics Technology/Technician (1-1-9-3)

AUMT 1381 COOP: Automobile/Automotive Mechanics Technology/Technician (1-19-3)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

AUMT 1407 Automotive Electrical Systems (2-6-4)
An overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of batteries, charging and starting systems, and electrical accessories. Emphasis on electrical schematic diagrams and service manuals. May be taught manufacturer specific.

AUMT 1410 Automotive Brake Systems (2-6-4)

Operation and repair of drum/disc type brake systems. Emphasis on safe use of modern equipment. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught with manufacturer specific instructions.

AUMT 1416 Auto Suspension and Steering (2-6-4)

A study of the theory and operation of automotive suspension and steering systems including tire and wheel problem diagnosis, component repair, and alignment procedures. May be taught manufacturer specific.

AUMT 1419 Automotive Engine Repair (2-6-4)

Fundamentals of engine operation, diagnosis and repair including lubrication systems and cooling systems. Emphasis on overhaul of selected engines, identification and inspection, measurements, and disassembly, repair, and reassembly of the engine. May be taught manufacturer specific.

AUMT 1445 Auto Heating & Air Conditioning (2-6-4)

Theory of automotive air conditioning and heating systems. Emphasis on the basic refrigeration cycle and diagnosis and repair of system malfunctions. Covers EPA guidelines for refrigerant handling and new refrigerant replacements. May be taught manufacturer specific.

AUMT 2301 Automotive Management (3-0-3)

Instruction in human relations, customer relations and customer satisfaction. Emphasis on management techniques and building relationships between the service department and the customer.

AUMT 2413 Automotive Drive Train & Axles (2-6-4)

A study of automotive clutches, clutch operation devices, standard transmissions/transaxles, and differentials with emphasis on the diagnosis and repair of transmissions/transaxles and drive lines. May be taught with manufacturer specific instructions.

AUMT 2417 Automotive Engine Performance Analysis I (2-6-4)

Theory, operation, diagnosis, and repair of basic engine dynamics, ignition systems, and fuel delivery systems. Use of basic engine performance diagnostic equipment. May be taught with manufacturer specific instructions. Prerequisite: AUMT 1407.

AUMT 2421 Automotive Electrical Lighting and Accessories (2-6-4)

Repair of automotive electrical subsystems, lighting, instrumentation, and accessories. Emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. May be taught manufacturer specific. Prerequisite: AUMT 1407.

AUMT 2425 Automatic Transmission/Transaxle (2-6-4)

A study of the operation, hydraulic principles, and related circuits of modern automatic transmissions and automatic transaxles. Diagnosis, disassembly, and assembly procedures with emphasis on the use of special tools and proper repair techniques. May be taught manufacturer specific.

AUMT 2434 Engine Performance Analysis II (2-6-4)

A study of diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems; and proper use of advanced engine performance diagnostic equipment. May be taught manufacturer specific. Prerequisite: AUMT 2417.

AUMT 2680 COOP: Automobile/Automotive Mechanics Technology/Technician (1-39-6)

An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

DEMR 2434 AdvDieselTune-up/Troubleshoot (2-6-4)

Advanced concepts and skills required for tune-up and troubleshooting procedures of diesel engines. Emphasis on the science of diagnostics with a common sense approach.

ENGL 1301 (see English/Communications)

MATH 1314 (see Math/Natural Sciences)

POFT 1301 (see Related Instruction)

HRPO 1311 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

TECM 1301 (see Related Instruction)

Aviation Maintenance Technology

AERM 1203 Shop Practices (1-4-2)

An introduction to shop safety, the correct use of hand tools, equipment and precision measurement, identification of aircraft hardware, and the fabrication of fluid lines and tubing. Emphasis on procedures for testing, heat treating, and inspection of aircraft structures.

AERM 1205 Weight & Balance (1-2-2)

An introduction to Federal Aviation Administration (FAA) required subjects relating to the weighing of aircraft, the performance of weight and balance calculations, and appropriate maintenance record entries.

AERM 1208 Federal Aviation Regulations (1-4-2)

A course in the use and understanding of the Federal Aviation Administration and aircraft manufacturers' publications, forms, and records; and the exercise of mechanic privileges within prescribed limitations.

AERM 1210 Ground Operations (1-3-2)

An introductory course in fuels, servicing methods and procedures, aircraft movement, securing and operations of aircraft, external power equipment, aircraft cleaning, and corrosion control.

AERM 1240 Aircraft Propellers (1-3-2)

Fundamentals of construction of propellers. Skill development in inspection, servicing, and repair of fixed-pitch, constant-speed, and feathering propellers and governing systems. Instruction in removal, balancing, and installation of propellers

AERM 1241 Wood, Fabric & Finishes (1-3-2)

A course in the use and care of various covering materials, finishes, and wood structures including approved methods and procedures. Safety also addressed.

AERM 1243 Instruments & Navigation/Communication (1-2-2)

A study of aircraft instruments and electronic flight instrument systems including testing and installing instruments; inspecting, checking, and troubleshooting navigation and communication systems; and inspecting and repairing antennas and electronic equipment installations.

AERM 1247 Airframe Auxiliary Systems (1-4-2)

A comprehensive study of airframe auxiliary systems including the operation and repair of position and warning systems, cabin atmospheric control systems, ice and rain control systems for aircraft and engines, and fire detection and protection systems. Fundamentals of safety procedures also addressed.

AERM 1253 Aircraft Welding (1-3-2)

Skill development in repair procedures for steel, magnesium, brass, and aluminum materials used in aircraft assembly and selection and application of appropriate methods of welding, brazing, and soldering steel, magnesium, brass, and aluminum. Fundamentals of safety procedures also addressed.

AERM 1254 Aircraft Composites (1-4-2)

Comprehensive concepts of the inspection and repair of composite, fiberglass, honeycomb, and laminated structural materials including doors, windows, bonded structures, and interior furnishings. Safety procedures will also be addressed.

AERM 1314 Basic Electricity (1-6-3)

A study of aircraft electrical systems and their requirements including the use of ammeter, voltmeter, and ohmmeter; series and parallel circuits; inductance and capacitance; magnetism; converting alternating current (AC) to direct current (DC); controlling devices; maintenance and servicing of aircraft batteries; and reading and interpreting aircraft electrical diagrams to include solid state devices and logic functions. Fundamentals of electrical safety also addressed.

AERM 1315 Aviation Science (2-4-3)

Fundamentals of mathematics, physics, and drawing as they apply to aircraft principles and operation as required by the Federal Aviation Administration for airframe and powerplant mechanics.

AERM 1344 Aircraft Reciprocating Engines (1-6-3)

A study of reciprocating engines and their development, operating principles, and theory. Instruction in engine instruments, lubricating, and exhaust systems. Fundamentals of safety will also be addressed.

AERM 1345 Airframe Electrical Systems (1-6-3)

A study of airframe electrical systems including installation, removal, disassembly, and repair of electrical components and related wiring. Fundamentals of electrical safety also addressed.

Prerequisite: AERM 1314.

AERM 1349 Hydraulic, Pneumatic, and Fuel Systems (2-4-3)

Skill development in inspecting, servicing, and maintaining aircraft fluid systems including hydraulics, pneumatics, and fuel. Application of basic concepts through detailed maintenance procedures. Fundamentals of safety also addressed.

AERM 1350 Landing Gear Systems (2-3-3)

General principles of inspection, servicing, overhaul, and repair of fixed and retractable landing gear systems. Includes coverage of systems, components, operation, and fundamentals of safety procedures.

AERM 1351 Aircraft Turbine Engine Theory (2-4-3)

General principles theory, history, and servicing of turbine engines to include lubrication, instrumentation, auxiliary power units, and exhaust systems. Fundamentals of safety procedures are also addressed.

AERM 1352 Aircraft Sheet Metal (1-8-3)
Skill development in inspection and repair of sheet metal structures including forming, layout, and bending of sheet metal and identification, selection, and installation of rivets and fasteners. Fundamentals of safety procedures also addressed.

AERM 1357 Fuel Metering and Induction Systems (1-6-3)
Skill development in fuel metering and induction systems used on reciprocating and turbine engines including fuel metering systems, carburetors, induction systems, heat exchangers, and cooling systems. Fundamentals of safety procedures will also be addressed.

AERM 1456 Aircraft Powerplant Electrical(2-6-4)
General principles of theory, operation, and maintenance of powerplants electrical systems including ignition, starting, and fire protection systems. Fundamentals of safety procedures will also be addressed. Prerequisite: AERM 1314.

AERM 2231 Airframe Inspection (1-3-2)
In depth coverage of methods and procedures to perform airframe conformity and air worthiness inspections (including one hundred hour inspections) in accordance with Federal Aviation Regulations and manufacturer's service information. Safety procedures will also be addressed.

AERM 2233 Assembly and Rigging (1-4-2)
A comprehensive study of the assembly and rigging of fixed and rotary-wing aircraft including structural alignment, balancing and rigging of control systems and assembly of aircraft components. Fundamentals of safety procedures are also addressed.

AERM 2341 Powerplant & Auxiliary Power Units (2-3-3)
Advanced concepts of auxiliary power unit (APU) and powerplant systems and components. Safety procedures will also be addressed.

AERM 2351 Aircraft Turbine Engine Overhaul (2-4-3)
A comprehensive study in inspection, disassembly, reassembly and replacement of gas turbine engines, sections, and components and operational troubleshooting, analysis, and safety.

AERM 2352 Aircraft Powerplant Inspection(1-6-3)
In-depth coverage of methods and procedures to perform powerplant conformity and airworthiness inspections (including one hundred hour inspections) in accordance with Federal Aviation Regulations and manufacturer's information. Safety procedures will also be addressed.

AERM 2380 COOP: Aircraft Mechanic & Maintenance (1-19-3)
AERM 2381 COOP: Aircraft Mechanic & Maintenance(1-19-3)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

AERM 2447 Aircraft Reciprocating Engine Overhaul (2-8-4)
A comprehensive study of reciprocating engine overhaul including measurement and inspection procedures. Instruction in removal and installation, inspections, checks, servicing, and repair of engines. Safety procedures will be addressed.

AERM 2680 COOP: Airframe Mechanic & Aircraft Maintenance (1-39-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

ENGL 1301 (see English/Communications)

MATH 1314, MATH 1332 (see Math/Natural Sciences)

HRPO 1311 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

Behavioral/Social Sciences

BMGT 1341 Business Ethics (2-2-3)
Discussion of ethical issues, the development of moral frame of reference and the need for an awareness of social justice in management practices and business activities. Review of ethical responsibilities and relationships between organizational departments, divisions, executive management, and the public.

ECON 2301 Principles of Macroeconomics (3-0-3)
History, development, and application of macroeconomic theory underlying the production, distribution, and exchange of goods and services including the utilization of resources, analysis of value and prices, national income analysis, fiscal policies, monetary and banking theory and policy, distribution of income, labor problems, international economics, and economics systems. Attention given to the application of economic principles to economic problems.

ECON 2302 Principles of Microeconomics (3-0-3)

History, development, and application of macroeconomic and microeconomic theory underlying the production, distribution, and exchange of goods and services including the utilization of resources, analysis of value and prices, national income analysis, fiscal policies, monetary and banking theory and policy, distribution of income, labor problems, international economics, and economics systems. Attention given to the application of economic principles to economic problems.

GOVT 2301 American Government I (3-0-3)
(Federal/Texas Constitutions) (3-0-3)

Introduction to the theory and practice of politics and government in America at the national, state, and local levels, with special attention to Texas. Topics include political theory, the American and Texas constitutions, federalism, political participation and elections, the institutions of government, and domestic and foreign policies. Prerequisite: READ 0200 or English placement test equivalent.

GOVT 2302 American Government II (3-0-3)
(Federal and Texas Topics) (3-0-3)

The theory and practice of politics and government in America at the national, state and local levels with special attention to Texas. Topics include political theory, political parties and elections, public policy, civil liberties and rights, and domestic and foreign policies. Prerequisite: READ 0200 or English placement test equivalent.

HIST 1301 United States History I (to 1877) (3-0-3)

Survey of the political, social, economic, military, cultural, and intellectual history of the United States from the discovery of America to 1877. Prerequisite: READ 0200 or English placement test equivalent.

HIST 1302 United States History II (since 1877) (3-0-3)

Survey of the political, social, economic, military, cultural, and intellectual history of the United States from 1877 to the present. Prerequisite: READ 0200 or English placement test equivalent.

PSYC 2301 General Psychology (3-0-3)

Survey of major topics in psychology. Introduces the study of behavior and the factors that determine and affect behavior. Prerequisite: READ 0200 or English placement test equivalent.

PSYC 2314 Lifespan Growth & Development (3-0-3)

Study of the relationship of the physical, emotional, social and mental factors of growth and development of children and throughout the lifespan. Prerequisite: READ 0200 or English placement test equivalent.

SOCI 1301 Introductory Sociology (3-0-3)

Introduction to the concepts and principles used in the study of group life, social institutions, and social processes.

SOCI 1306 Social Problems (3-0-3)

Application of sociological principles to the major problems of contemporary society such as inequality, crime and violence, substance abuse, deviance, or family problems.

ENVR 1401 Environmental Science I (3-3-4)

General interest course requiring a minimum of previous science background and relating scientific knowledge to problems involving energy and the environment. May or may not include a laboratory.

HRPO 1311 Human Relations (3-0-3)

Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment.

LAWT 1301 Copyright & Ethical Issues(3-0-3)

Introduction to basic copyright law and related ethical issues as they apply to creation and use of copyrighted material. Emphasis on practical application of copyright law through case studies.

Biomedical Equipment Technology

BIOM 1201 Biomedical Equipment Technology (1-2-2)

Introduction to current job responsibilities, salaries, and compensations in the medical industry and health care organizations.

BIOM 1205 Soldering Skills & Shop Safety (1-4-2)

Preparation for selection of soldering equipment and application of safety practices at work. Laboratory development of proficiency in soldering and desoldering electronic components.

BIOM 1209 Applied Biomedical Equipment Technology (1-4-2)

Introduction to biomedical instrumentation as related to anatomy and physiology. Detailed coverage of anatomical systems that use medical equipment for monitoring, diagnosis, and treatment.

BIOM 1305 Soldering Skills and Shop Safety (2-4-3)

Preparation for selection of soldering equipment and application of safety practices at work. Laboratory development of proficiency in soldering and desoldering electronic components.

BIOM 1309 Applied Biomedical Equipment Technology (2-4-3)
Introduction to biomedical instrumentation as related to anatomy and physiology. Detailed coverage of anatomical systems that use medical equipment for monitoring, diagnosis, and treatment.

BIOM 1341 Medical Circuits/Troubleshooting (2-4-3)
Development of skills in logical isolation of troubles in malfunctioning medical electronic circuits and utilization of appropriate test equipment. Prerequisites: CETT 1305 or IEIR 1304.

BIOM 1355 Medical Electronic Application (2-4-3)
Presentation of sensors, transducers, and supporting circuits used in medical instrumentation devices. Prerequisites: CETT 1305 or IEIR 1304.

BIOM 2201 Safety in Health Care Facilities (1-4-2)
Study of codes, standards and management principles related to biomedical instrumentation. Emphasize on the proper use and application of safety test equipment, preventive maintenance procedures, and documentation of work performed.

BIOM 2249 Basic X-Ray & Medical Imaging Systems (1-4-2)
A study of radiation theory and safety hazards, fundamental circuits and application of X-ray systems including circuit analysis, troubleshooting, and isolation of system malfunctions.

BIOM 2288 Internship-Biomedical Technology(0-10-2)
An experience external to the college for an advanced student in specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary.

BIOM 2289 Internship-Biomedical Technology (-0-10-2)
An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary.

BIOM 2301 Safety in Health Care Facilities (2-3-3)
Study of codes, standards and management principles related to biomedical instrumentation. Emphasize on the proper use and application of safety test equipment, preventive maintenance procedures, and documentation of work performed. Prerequisites: CETT 1305 or IEIR 1304.

BIOM 2335 Physiological Instrument I (2-4-3)
Introduction to electro-cardiographic equipment. Emphasis on the theory of operation, circuit analysis, and troubleshooting techniques including physiology of the cardiovascular system. Prerequisites: CETT 1305 or IEIR 1304.

BIOM 2339 Physiological Instruments I (2-4-3)
Continuation of Physiological Instruments, emphasizing graphic display recording devices. A study of defibrillators and multi-purpose diagnostic equipment. Prerequisite: BIOM 2335.

BIOM 2341 General Medical Equipment I (2-4-3)
Extraction of selected current paths from a larger schematic with requirements to redraw into the proper configuration. Discussion of motors and disassembly and reassembly of equipment. Prerequisites: CETT 1305 or IEIR 1304.

BIOM 2343 General Medical Equipment II (2-4-3)
Study of the theory and principles of operation of a variety of basic electro-mechanical equipment with emphasis on repair and service of actual medical equipment. Prerequisite: BIOM 2341.

BIOM 2349 Basic X-Ray & Medical Imaging Systems (2-3-3)
A study of radiation theory and safety hazards, fundamental circuits and application of X-ray systems including circuit analysis, troubleshooting, and isolation of system malfunctions. Prerequisite: BIOM 1355.

BIOM 2380 COOP - Biomedical Technology(1-19-3)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisite: BIOM 2201.

BIOM 2480 COOP: Biomedical Technology (1-24-4)

BIOM 2680 COOP: Biomedical Technology(1-39-6)

An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisite: BIOM 2201.

BIOM 2688 Internship/Biomedical(0-20-6)

A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: BIOM 2301.

CETT 1303 (see Mechatronics Technology)

CETT 1305 (see Mechatronics Technology)

CETT 1325 (see Mechatronics Technology)

ELMT 1301 (see Mechatronics Technology)

ELMT 1305 (see Mechatronics Technology)

ELMT 2333 (see Mechatronics Technology)

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

INTC 1357 (see Mechatronics Technology)

MATH (see Math/Natural Sciences)

PSYC 2301 (see Behavioral/Social Sciences)

RBTC 1305 (see Mechatronics Technology)

SPCH (see Speech Electives)

Building Construction Technology

CNBT 1342 Building Codes and Inspections (2-4-3)

An examination of the building codes and standards applicable to building construction and inspection processes.

CNBT 1346 Construction Estimating I (2-4-3)

Fundamentals of estimating materials and labor costs in construction. Prerequisites: CNBT 1305.

CNBT 1416 Construction Technology I (2-6-4)

Site preparation, foundation, form work, and framing. Includes safety; tools and equipment; basic site preparation; basic foundations and form work; and basic floor, wall, and framing methods and systems.

CNBT 1449 Concrete-Commercial & Industrial (2-6-4)

Various techniques for concrete utilization in commercial and industrial construction.

CNBT 2310 Comm/Indust BLprintRead(2-4-3)

Introductory blueprint reading for commercial/industrial construction.

CNBT 2380 COOP: Construction Engineering Technology/Technician (1-19-3)

An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisites: CRPT 1323, CRPT 1315, & CNBT 1549.

CNBT 2437 Construction Estimating II (2-4-4)

Advanced estimating concepts using computer software programs for the construction and crafts. Prerequisites: CNBT 1305.

CNBT 2680 COOP: Construction Engineering Technology/Technician (1-39-6)

An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisites: CRPT 1323, CRPT 1315, & CNBT 1549.

CRPT 1315 Conventional Wall Systems (2-4-3)

Instruction in conventional wall systems with emphasis on wood frame construction. Topics includes identification of components; construction of a wall system; safe work practices; and the selection, use, and maintenance of tools and equipment.

CRPT 1323 Floor Systems (2-4-3)
An introduction to common floor systems. Topics include component identification; construction of a floor system; safe work practices; and the selection, use, and maintenance of tools and equipment.

CRPT 1341 Conventional Ext Finish Systems (2-4-3)
Skill development in the installation of exterior finish systems and components including the placement and installation of cornice, windows, doors, siding, and flashing. Emphasis on safe work practices and the selection, use, and maintenance of tools and equipment.

CRPT 1345 Conventional Interior Finish Systems (2-4-3)
Instruction in the installation of interior finish systems and components including the placement and installation of doors and trim and floor, wall, and ceiling finishes. Emphasis on safe work practices and the selection, use, and maintenance of tools and equipment.

CRPT 1411 Conventional Roof Systems (2-6-4)
Study of the principles of design and construction of a conventional roof system incorporating gable, hip, and intersections. Emphasis on safe work practices and the selection, use, and maintenance of tools and equipment.

DFTG 1325 (see Computer Drafting & Design Technology)

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

MBST 1407 Masonry I (2-6-4)
Introduction to masonry including safety, tools and equipment, masonry materials, theory, terminology, federal and state guidelines, building plans, mortar mixing and spreading. Emphasis on the fundamentals of laying bricks and block.

MATH 1314, MATH 1332 (see Math/Natural Sciences)

OSHT 1405 OSHA Regulations-Construction Industry (3-3-4)
A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to the construction industry.

POFT 1301 (see Related Instruction)

SPCH (see Speech Electives)

TECM 1303 (see Related Instruction)

WDWK 1413 Cabinet Making (2-6-4)
Includes the design and construction of base cabinets and wall cabinets for kitchens and bathrooms. Emphasis on the safe use of portable and stationary power tools. Finishing techniques include proper sanding, sealing, staining, and finishing techniques.

Business/Office Technology
Office Administration, Office Assistant

ACNT 1303 Introduction to Accounting I (2-4-3)
A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll.

BMGT 1327 Principles of Management (2-2-3)

Concepts, terminology, principles, theory, and issues in the field of management.

CPMT (see Computer Systems Management Technology)

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

HRPO 2301 Human Resource Management
Behavioral and legal approaches to the management of human resources in organizations. This course includes the study of personnel policies and administration, education, training, job classification and analysis, labor supply, employment and testing, hours of work, labor union relations, and employee safety and health problems.

ITSC 1309 Integrated Software Applications I (2-4-3)
Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software.

ITSW 1307 Introduction to Database (2-4-3)
Introduction to database theory and the practical applications of a database.

ITSW 1310 Presentation Graphics Software (2-4-3)
Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development.

MATH 1314, MATH 1332 (see Math/Natural Sciences)

MRKG 1311 Principles of Marketing
Introduction to basic marketing functions: identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research.

POFI 1349 Spreadsheets (2-4-3)
Spreadsheet software for business applications. Topics include worksheet creation and manipulation functions, templates, macro programming database functions, data-table features, and graphics.

POFI 2301 Word Processing (2-3-3)
Word processing software focusing on business applications. Emphasis on the use of text editing features to produce business documents.

POFI 2331 Desktop Publishing for the Office (2-3-3)
In-depth coverage of desktop publishing terminology, text editing, and use of design principles to create publishing material using word processing desktop publishing features. Emphasis on layout techniques, graphics, multiple page displays, and business applications.

POFT 1301 (see Related Instruction)

POFT 1309 Administrative/Office Procedures I (2-3-3)
Study of current office procedures including telephone skills, time management, travel and meeting arrangements, mail processing, and other duties and responsibilities applicable to an office environment.

POFT 1319 Records & Info Management I (2-2-3)
Introduction to basic records and information management. Includes the life cycle of a record, manual and electronic records management, and basic filing procedures and rules.

POFT 1329 Beginning Keyboarding (2-4-3)
Skill development in the operation of the keyboard by touch applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents.

POFT 2331 Administrative Systems (2-4-3)
Advanced concepts of project management and office procedures utilizing integration of previously learned office skills.

Chemical-Environmental Technology

CTEC 1205 Chemical Calculations I (1-2-2)
Parallels and supports college-level applied general chemistry. Emphasis on solving problems in exercises and lab experiments.

CTEC 1206 Chemical Calculations II (1-2-2)
Parallels and supports college-level applied general chemistry. Emphasis on solving problems in exercises and lab experiments.

CTEC 1380 COOP: Chemical Technology Technician (1-19-3)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

CTEC 1441 Applied Instrumental Analysis I (2-6-4)
Overview of instrumental chemical analysis. Topics include chromatography, spectroscopy, and/or electro analytical chemistry.

CTEC 1680 COOP: Chemical Technology Technician (1-39-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

CTEC 2250 Unit Operations II (1-4-2)
A continuation of Unit Operations I. Includes identification, operation and control of plant equipment, general process equipment, process operations, instrumentation, process control, product transfer and storage, preventive maintenance, and utilities.

CTEC 2333 Comprehensive Studies in Chemical Technology (1-6-3)
Course requiring a special laboratory research project.

CTEC 2441 Polymers I (2-6-4)
Study of the concepts of polymer science. Topics include classification, structure, properties, synthesis, characterization, and industrial applications.

CTEC 2443 Polymers II (2-6-4)
Continuation of Polymers I with emphasis on polymeric materials.

CTEC 2445 Unit Operations (2-6-4)
Instruction in the principles of chemical engineering and process equipment. Emphasis on scale-up from laboratory bench to pilot plant.

ENGL 1301 (see English/Communications)

EPCT 1203 24 Hr Emergency Response Training (1-3-2)
Minimum certification requirements of a hazardous material emergency response technician, hazardous materials specialist, or on-site incident commander as found in the Code of Federal Regulations:29CFR-1910.120.

EPCT 1211 Intro to Environmental Science (1-3-2)
An overview of environmental science and current global concerns, and a brief history of environmental ethics, resource use, and conversation. Discussion of fundamental principles of resource economics and environmental health.

EPCT 1251 Quality Assurance & Quality Control (1-4-2)
Quality assurance/quality control procedures used to confirm viability and confidence of sample results or procedures. Emphasis on documentation, blank and check sample (spike) preparation, and control tables.

EPCT 1344 Environmental Sampling/Analysis (2-4-3)
Sampling protocol, procedures, quality control, preservation technology, and field analysis. Emphasis on analysis commonly performed by the field technician.

EPCT 2335 Advanced Environmental Instrument Analysis (1-6-3)
Regulations and standards in the analysis of samples using specific analytical instruments and their procedures. Emphasis on instrument calibrator sample preparation, evaluation, and reporting of analytical results.

HRPO 1311 (see Behavioral/Social Sciences)

MATH 1314 (see Math/Natural Sciences)

PSYC 2301 (see Behavioral/Social Sciences)

SCIT 1414 Applied General Chemistry (2-6-4)
Study of the general concepts of chemistry with an emphasis on industrial applications.

SCIT 1415 Applied General Chemistry II (2-6-4)
A continuation of Applied General Chemistry I with emphasis on solids, liquids, gases, solutions, energy changes, reaction rates, and chemical equilibrium.

SCIT 1543 Applied Analytical Chemistry I (3-6-5)
Instruction in gravimetric and titrimetric analysis of practical samples by classical and standard methods.

SCIT 2401 Applied Organic Chemistry I (3-4-4)
An overview of the classification, characteristics, and structure of carbon compounds and an introduction to basic organic laboratory techniques.

SPCH (see Speech Electives)

Computer Drafting and Design Technology
GIS/GPS Specialty

ARCE 2344 Statics & Strength of Materials (2-4-3)
Internal effects of forces acting upon elastic bodies and the resulting changes in form and dimensions. Includes stress, shear, bending moments, and simple beam design.

DFTG 1305 Technical Drafting (2-4-3)
Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes.

DFTG 1309 Basic Computer-Aided Drafting (2-4-3)
An introduction to basic computer-aided drafting. Emphasis is placed on drawing setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; and plot/print to scale.

DFTG 1317 Architectural Drafting-Residential (2-4-3)
Architectural drafting procedures, practices, and symbols. Preparation of detailed working drawings for residential structures. Emphasis on light frame construction methods. Prerequisites: DFTG 1309.

DFTG 1325 Blueprint Reading & Sketching (2-4-3)
An introduction to reading and interpreting working drawings for fabrication processes and associated trades. Use of sketching techniques to create pictorial and multiple-view drawings.

DFTG 1329 Electro-Mechanical Drafting(2-4-3)
A basic course including layout and design of electro-mechanical equipment from engineering notes and sketches. Emphasis on drawing of electronic enclosures, interior hardware, exterior enclosures, detailed and assembly drawings with a parts list, and flat pattern layouts.

DFTG 1333 Mechanical Drafting (2-4-3)
An intermediate course covering detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, pictorial drawings, including bill of materials. Prerequisites: DFTG 1305, & DFTG 1309.

DFTG 1358 Electrical/Electronics Drafting (2-4-3)
A study of the principles of layout of electrical and electronic drawings, stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Prerequisites: DFTG 1309.

DFTG 2305 Printed Circuit Board Design (2-4-3)
Course includes single-sided and double-sided printed circuit board design, emphasizing the drawings, standards, and processes required to layout printed circuit board and manufacturing documentation. Prerequisites: DFTG 1358.

DFTG 2306 Machine Design (2-4-3)
Theory and practice of design. Projects in problem-solving, including press fit, bolted and welded joints, and transmission components. Prerequisites: DFTG 2332.

DFTG 2312 Technical Illustration (2-4-3)
Topics includes pictorial drawing including isometrics, obliques, perspectives, charts, and graphs. Emphasis on rendering and using different media. Prerequisites: DFTG 2340.

DFTG 2319 Intermediate Computer-Aided Drafting (2-4-3)
A continuation of practices and techniques used in basic computer-aided drafting emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of 3 dimensional drawings, interfacing 2d and 3d environments and extracting data. Prerequisites: DFTG 1309.

DFTG 2321 Topographical Drafting(2-4-3)
Plotting of surveyor's field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses. Prerequisites: DFTG 2330.

DFTG 2328 Architectural Drafting-Commercial(2-4-3)
Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Prerequisites: DFTG 1317.

DFTG 2330 Civil Drafting (2-4-3)
An in-depth study of drafting methods and principles used in public works civil engineering. Prerequisites: DFTG 1309.

DFTG 2331 AdvTech in Archit Design Drafting (2-4-3)
Use of architectural specific software to execute the elements required in designing standard architectural exhibits utilizing custom features to create walls, windows and specific design requirements for construction in residential/commercial and industrial architecture.

DFTG 2332 Advanced Computer-Aided Drafting(2-4-3)
Advanced techniques, including the use of a customized system. Presentation of advanced drawing applications, such as three-dimensional solids modeling and linking graphic entities to external non-graphic data. Prerequisites: DFTG 2340.

DFTG 2340 Solid Modeling/Design(2-4-3)
A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. Prerequisites: DFTG 2319.

DFTG 2350 Geometric Dimensioning & Tolerancing (2-4-3)
An introduction to geometric dimensioning and tolerancing, according to ANSI Y14.5 standards. Application of various geometric dimensions and tolerances to engineering production drawings. Emphasis on cumulative effects on part function, gauging equipment, and inspection procedures. Prerequisites: DFTG 1333 & DFTG 2332.

DFTG 2380 COOP: Drafting & Design Technology, General (1-19-3)
DFTG 2680 COOP: Drafting & Design Technology (1-39-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisites: DFTG 2305, DFTG 2328, & DFTG 2340.

ENGL 1301 (see English/Communications)

GISC 1301 Cartography and Geography in GIS & GPS (2-4-3)
Introduction to the principles of cartography and geography. Emphasis on global reference systems and the use of satellites for measurements and navigation.

GISC 1311 Introduction to GIS (2-4-3)
Introduction to basic concepts of vector GIS using several industry specific software programs including nomenclature of cartography and geography.

GISC 1321 Introduction to Raster-Based GIS (2-4-3)
Instruction in GIS data sets including rater-based information such as images or photographs, acquistion of such data, and processing and merging with vector data.

GISC 2301 Data Acquisition & Analysis in GIS (2-4-3)
Study of the management of geographic information, system life cycles, and costs and benefits. Includes institutional issues such as data providers, data management, combination of attribute and graphical data, information storage and access, Texas and national standards for spatial data; and applications of GIS for data modeling and analysis.

GISC 2311 GIS Applications (2-3-3)
Applcation of GIS technology to real workplace applications from public and private sectors. Completion of Global Positioning Systems (GPS) fieldwork required for lab exercises.

GISC 2320 Intermediate Geographic Info Sys (2-4-3)
This course focuses on the study of spatial data structures and the display, manipulation, and analysis of geographic information. Students will study the technical aspects involved in spatial data handling, analysis and modeling. Instruction will include theories and procedures associated with the implementation and management of GIS projects. A variety of GIS software packages will be used in the laboratory.

GISC 2380 COOP - Cartography (1-19-3)
GISC 2680 COOP - Cartography (1-39-6)
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

HRPO 1311 (see Behavioral/Social Sciences)

MATH (see Math/Natural Sciences)

PSYC 2301 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

SRVY 1301 Intro to Surveying
An overview of the surveying profession. The history of surveying and its impact on the world. Review of the mathematics used in surveying. Introduction to basic surveying equipment with emphasis on measurements. Instruction on surveying procedures and the limitation of errors. Calculation to determine precision and error of closure.

SRVY 2348 Plane Surveying (2-4-3)
Surveying instruments, basic measuring procedures, vertical and horizontal control, and traverse closure.

Computer Networking and Security Technology

ACCT 2401 (see Transferable Academic)

CPMT 1349 Computer Networking Technology (2-4-3)
A beginning course in computer networks with focus on networking fundamentals, terminology hardware, software, and network architecture. A study of local/wide area networking concepts and networking installations and operations.

CPMT 2349 Advanced Computer Networking (2-4-3)
An in-depth study of network technology with emphasis on network operating systems, network connectivity, hardware, and software. Mastery of implementation, troubleshooting, and maintenance of LAN and/or WAN network environments.

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

ITNW 1325 Fundamentals of Networking Technology (2-4-3)
Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software.

ITNW 1353 Support Network Server Infrastructure (2-4-3)
Skills development in installing, configuring, managing, and supporting a network infrastructure.

ITNW 1354 Implementing & Supporting Servers (2-4-3)
A course in the development of skills necessary to implement, administer, and troubleshoot information systems that incorporate Windows Based Servers in a networked computing environment.

ITNW 1380 COOP - Computer Systems Network (1-19-3)
ITNW 1680 COOP - Computer Systems Network (1-39-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

ITNW 1392 Special Topics in Computer Systems and Telecomunications (2-4-3)
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant tothe professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

ITNW 2309 Network Administration for Intranet (2-4-3)
Preparation to competently perform the role of network administrator or system manager in a Novell Intra NetWare network.

ITNW 2313 Network Hardware (2-4-3)
Preparation to work with and maintain network hardware devices. Topics include network cables, servers, and workstations; network connectivity devices such as routers, hubs, bridges, gateways, repeaters, and uninterruptible power supplies; and other networking hardware devices.

ITNW 2321 Networking with TCP/IP (2-4-3)
Preparation to set up, configure, use, and support Transmission Control Protocol/Internet Protocol (TCP/IP) on networking operating systems.

ITNW 2335 Networking Troubleshooting & Support (2-4-3)
Instruction in the techniques used to troubleshoot and support networks with emphasis on solving real world problems in a hands-on environment. Topics include troubleshooting and research techniques, available resources, and network management hard/software.

ITNW 2350 Enterprise Network (2-4-3)
A case study in Convergence Technologies requiring a network engineer to study a problem and design a network solution for an enterprise network.

ITNW 2354 Internet/Intranet Server (2-4-3)
Designing, installing, configuring, maintaining, and managing an Internet server.

ITNW 2356 Design a Network Directory Infrastructure (2-4-3)
Design, implement, and support a network directory infrastructure in a multi-dominion environment.

ITNW 2359 Web Server Support & Maintenance (2-4-3)
Instruction in the installation, configuration, and implementation of web servers.

ITSC 1301 Introduction to Computers (2-4-3)
Overview of computer information systems. Introduces computer hardware, software, procedures and human resources. Explores integration and application in business and other segments in society. Fundamentals of computer problem-solving and programming may be discussed and applied. Examines applications and software relating to a specific curricular area.

ITSC 1309 (see Business/Office Technology)

ITSC 2380 COOP - Computer & Information Sciences (1-19-3)
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

ITSC 2680 COOP - Computer & Information Sciences (1-39-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.

ITSY 1342 Information Technology Security (2-4-3)
Instruction in security for network hardware, software, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses.

ITSY 2301 Firewalls and Network Security (2-4-3)
Identify elements of firewall design, types of security threats and responses to security attacks. Use best practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities.

ITSY 2330 Intrusion Detection (2-4-3)
Computer information systems security monitoring, intrusion detection, and crisis management. Includes alarm management, signature configuration, sensor configuration, and troubleshooting components. Emphasizes identifying, resolving, and documenting network crises and activating the response team.

ITSY 2342 Incident Response & Handling (2-4-3)
In-depth coverage of incident response and incident handling, including identifying sources to attacks and security breaches; analyzing security logs; recovering the system to normal; performing postmortem analysis; and implementing and modifying security measures.

ITSY 2359 Security Assessment & Auditing (2-4-3)
Capstone experience for the security curriculum. Synthesizes technical material covered in prior courses to monitor, audit, analyze, and revise computer and network security systems to ensure appropriate levels of protection are in place.

MATH 1314 (see Math/Natural Sciences)

POFT 1301 (see Related Instruction)

SPCH (see Speech Electives)

TECM 1303 (see Related Instruction)

Computer Science Software Development
Game & Simulation Programming Specialty

CPMT 1303 (see Computer Systems Management Technology)

CPMT 1304 (see Computer Systems Management Technology)

ENGL 1301 (see English/Communications)

GAME 1301 Computer Ethics (2-2-3)
Computer ethics and related ethical issues that apply to computers in the workplace, intellectual property, privacy and anonymity, professional responsibility, and the effects of globalization. Emphasizes the practical application of computer ethics through case studies and current events in the game and simulation industry.

GAME 1303 Intro to Game Design/Development (2-4-3)
Introduction to electronic game development and game development careers. Includes examination of history and philosophy of games, the game production process, employee factors for success in the field, and current, issues and practices in the game development industry.

GAME 1304 Level Design
Introduction to the tools and concepts used to create levels for games and simulations. Incorporates level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Includes utilization of toolsets from industry titles. Prerequisites: CPMT 1303.

GAME 1309 Intro to Animation Programming (2-4-3)
Mathematical elements and algorithms involved in basic animation. Includes generating graphics, viewing 3D environments such as visible line detection and 3D surfaces, image processing techniques, and special effects.

GAME 1343 Graphics & Simulation Programming I (2-4-3)
Game and simulation programming using the C++ language. Topics will include advanced pointer manipulation techniques and pointer applications, points and vectors, sound and graphics. Prerequisites: ITSE 2331 & MATH 1316.

GAME 1349 OpenGL Programming I (2-4-3)
Computer graphics with focus on the basic principles and techniques of graphics applications. Emphasizes 3D computer graphics and translating a task from design to suitable algorithms and program code. Combines principles and major techniques in computer graphics with third-party game and simulation technologies. Prerequisites: ITSE 1307.

GAME 1353 Multi-User Game Programming I (2-4-3)
Network topologies, architecture and protocols, and communication in game and simulation programming. Introduces sockets programming utilizing TCP and UDP protocols in high-level language. Focuses on blocking and asynchronous modes. Prerequisites: GAME 1343.

GAME 1359 Graphics & Simulation Programming II (2-4-3)
Design and development of 2D game and simulation programs including user interface design, mathematical elements, image and file structure, and software development techniques. Introduces the basics of 3D graphics related to game and simulation programming. Prerequisites: GAME 1343.

GAME 2302 Math Applications for Game Development (2-4-3)
Presents applications of mathematics and science in game and simulation programming. Includes the utilization of matrix and vector operations, kinematics, and Newtonian principles in games and simulations. Also covers code optimization. Prerequisites: ITSE 2345.

GAME 2303 Artificial Intelligence Programming I (2-4-3)
Basic techniques in artificial intelligence related to game and simulation programming. Includes knowledge representation and interference techniques, expert systems, pathfinding algorithms, and search techniques for problem solving. Prerequisites: ITSE 1307.

GAME 2333 Graphics & Simulation Programming III (2-4-3)
Advanced applications of game and simulation programming techniques. Includes advanced rendering techniques and BSP trees. Incorporates shadowing, lighting, collision detection, and 3D animation and motion. Prerequisites: GAME 1359.

GAME 2338 Game Testing (2-4-3)
Testing and debugging gaming and simulation applications in the alpha and beta stages of production. Includes critiques of the product and written documentation of the testing and debugging processes.

GAME 2343 Multi-User Game Programming II (2-4-3)
Creation of network game and simulation programs using DirectX and/or sockets. Emphasizes on online game and simulation programming technologies, multithreading, player management, peer-to-peer and client/server development. Prerequisites: GAME 2303.

GAME 2349 Artificial Intelligence Programming II (2-4-3)
Advanced topics in artificial intelligence programming as applied to game and simulation programming. Includes application of the principles of inductive learning, concept formation, decision tree learning, and neural networks.

GAME 2353 OpenGL Programming II (2-4-3)
Vector tools for graphics, transformation of objects, modeling shapes with polygon meshes, 3D viewing, rendering faces for realism, and color theory for game and simulation programming. Prerequisites: GAME 1349.

GAME 2359 Game/Simulation Group Project (2-4-3)
Creation of a game and/or simulation project utilizing a team approach. Includes animation, titles, visualization of research results, modeling with polygon frames, curves and surfaces, 3D text and animation with keyframes, paths (objects and curves), morphing, vertex keys, skeletons and lattices. Prerequisites: INEW 2330, ITSE 2317, ITSE 2331, & ITSE 2347.

HRPO 1311 (see Behavioral/Social Sciences)

INEW 2330 Comprehensive Software Project: Planning & Design (2-4-3)
A comprehensive application of skills learned in previous courses in a simulated workplace. Covers the development, testing, and documenting of a complete software and/or hardware solution. This course may be used as a capstone course for a certificate or degree. May be combined with Project II when the expected outcomes include completion of the programming life cycle. Prerequisites: ITSC 1307, ITSE 1307, ITSE 1359, & ITSE 2309.

INEW 2332 Comprehensive Software Project: Coding, Testing, and Implementation (2-4-3)
A comprehensive application of skills learned in previous semesters in a simulated workplace. Course covers the coding, testing, and documentation of a complete software and/or hardware solution. This course may be used as a capstone course for a certificate or degree. Prerequisites: INEW 2330.

INEW 2334 Advanced Web Page Programming (2-4-3)
Programming for Web authoring. Includes industry-standard languages and data stores. Topics include Perl Scripts, Common Gateway Interface, Active Server Pages, Java Applets, Javascripts, tables, HTML, and/or interactive elements. Prerequisites: ITSE 2302.

INEW 2336 Computer Program Maintenance and Conversion (2-4-3)
A comprehensive application of skills learned in prior computer programming classes. Demonstration of debugging skills, program augmentation, and translation of complex programs in a supervised laboratory environment. Prerequisites: ITSE 2309, ITSE 2349, & ITSE 1307.

ITSC 2337 Unix Operating System II (2-4-3)
Advanced study of the UNIX operating system commands. Includes additional scripting topics such as CGI or PERL, and concepts of system management and communication, the installation and maintenance of software, network security, and data integrity issues. Prerequisites: ITNW 2309 or ITSC 1307.

ITSE 1307 Introduction to C++ Programming (2-4-3)
Introduction to computer programming using C++. Emphasis on the fundamentals of object-oriented with development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files.

ITSE 1311 Web Page Programming (2-4-3)
Instruction in Internet Web page programming and related graphic design issues including mark-up languages, Web sites, Internet access software, and interactive topics. May include use of HTML, CGI, JAVA, JAVASCRIPT, OR ASP.

ITSE 1318 Intro to COBOL Programming (2-4-3)
Introduction to computer programming using COBOL. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files.

ITSE 1345 Intro to Oracle SQL (2-4-3)
An introduction to the design and creation of relational databases using Oracle. Topics include storing, retrieving, updating, and displaying data using Structured Query Language (SQL) and Procedure Language (PL).

ITSE 1350 System Analysis & Design (2-4-3)
Comprehensive introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools.

ITSE 1359 Intro to Scripting Language (2-2-3)
Introduction to scripting languages with the utilization of the three basic types of scalars, arrays and hashes, the control structures, regular expressions, input/output, and textual analysis.

ITSE 1380 COOP: Computer Programming (1-19-3)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisites: ITSC 1307, ITSE-1307, ITSE-1359, & ITSE 2309.

ITSE 2302 Intermediate Web Programming (2-4-3)
Intermediate applications for web authoring. Topics may include server side (SSI) and client-side scripting, such as Perl HTML, Java, Javascript, and/or ASP. Prerequisites: ITSE 1311.

ITSE 2309 Intro to Database Programming (2-4-3)
Application development using database programming techniques emphasizing database structures, modeling, and database access.

ITSE 2331 Advanced C++ Programming (2-4-3)
Further application of C++ programming techniques including subjects such as file access, abstract data structures, class inheritance, and other advanced techniques. Prerequisites: ITSE 1307.

ITSE 2337 Assembly Language Programming (2-4-3)
Comprehensive coverage of low-level computer operations and architecture. Includes design, development, testing, implementation, and documentation of programs; language syntax; data manipulation; input/output devices and operations; and file access. Prerequisites: ITSE 1307.

ITSE 2345 Data Structures (2-4-3)
Further applications of programming techniques. Includes an in-depth look at various data structures and the operations performed on them. Prerequisites: ITSE 2331.

ITSE 2346 Oracle: Application I (2-4-3)
Skill development in the use of Forms in a Developer/2000 environment. Topics include the use of Object Navigator and Virtual Graphics System (VGS), Layout Editor and Menu options.

ITSE 2347 Adv Database Program (2-4-3)
Application development using complex database programming techniques emphasizing multiple interrelated files, menu design, security implementation, and multiple access. Prerequisites: ITSE 2309.

ITSE 2351 Advanced COBOL Programming (2-4-3)
Further applications of programming techniques using COBOL, including file access methods, data structures and modular programming, program testing and documentation.

ITSE 2354 Advanced Oracle PL/SQL (2-4-3)
A continuation of Oracle PL/SQL. Topics include hierarchical queries, set based queries, correlated subqueries, scripting, and scripting generation. Prerequisites: ITSE 1345.

ITSE 2356 Oracle Database Administration I (2-4-3)
Create an operational database using Oracle; will demonstrate the ability to create, delete, and modify associated files; will create, delete, and modify tablespaces, segments, extents, and blocks; start up and shut down an Oracle instance and database; add, delete, and modify users, privileges, and resources; and demonstrate use of National Language and Support (NLS) features. Prerequisites: ITSE 2354.

ITSE 2358 Oracle Database Administration II (2-4-3)
A continuation of Oracle Database Administration II. Topics include recovery procedures, logical backups, standby database capabilities, and performance tuning of the Oracle Server. Common performance problems and the use of diagnostic tools to troubleshoot and optimize throughput will be discussed. Prerequisites: ITSE 2356.

ITSE 2359 Advanced Computer Programming (2-4-3)
Further applications of programming techniques. Topics include file access methods, data structures and modular programming, program testing and documentation. Prerequisites: ITSE 2349.

ITSE 2380 COOP: Computer Programming (1-19-3)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisites: ITSE 1380.

ITSE 2680 COOP: Computer Programming (1-39-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisites: ITSC 1307, ITSE 1307, ITSE 1359, & ITSE 2309.

ITSC 1307 UNIX Operating Systems I (2-4-3)
A study of the UNIX operating system including multi-user concepts, terminal emulation, use of system editor, basic UNIX commands, and writing script files. Topics include introductory systems management concepts. Prerequisites: ITSC 1305.

ITSE 1331 Intro to Visual Basic Program (2-4-3)
Introduction to computer programming using Visual BASIC. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files.

ITSE 2317 Java Programming (2-4-3)
Introduction to JAVA programming with object-orientation. Emphasis on the fundamental syntax and semantics of JAVA for applications and web applets.

ITSE 2349 Advanced Visual Basic Programming (2-4-3)
Further applications of programming techniques using Visual BASIC. Topics include file access methods, data structures and modular programming, program testing and documentation. Prerequisites: ITSE 1331.

MATH (see Math/Natural Sciences)

HRPO 1311 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

TECM 1303 (see Related Instruction)

QCTC 1301 (see Mechatronics Technology)

Computer Systems Management Technology

CPMT 1303 Introduction to Computer Technology (2-4-3)
A fundamental computer course that provides in-depth explanation of the procedures to utilize hardware and software. Emphasis on terminology, acronyms, and hands-on activities.

CPMT 1304 Microcomputer System Software (2-4-3)
Skill development in the installation, configuration, maintenance and troubleshooting of system software in microcomputers. Topics may include operating systems, utility software and other software affecting the basic operation of a microcomputer system.

CPMT 1307 Electronic & Computer Skills (2-4-3)
A course in current electronic construction techniques including the application of the most common hand tools used in disassembly, repair, and re-assembly of electronics and computer components. Prerequisites: TECM 1303, or MATH-1314.

CPMT 1311 Introduction to Computer Maintenance (2-4-3)
Introduction to the installation, configuration, and maintenance of a microcomputer system. Prerequisites: CPMT 1303.

CPMT 1343 Microcomputer Architecture (2-4-3)
An intermediate level course in computer characteristics and subsystem operations, timing, control circuits, and internal input/output controls. Prerequisites: CPMT 1311.

CPMT 1345 Computer Systems Maintenance (2-4-3)
Examination of the functions of the components within a computer system. Development of skills in the use of test equipment and maintenance aids. Prerequisites: CPMT 1311.

CPMT 1347 Computer System Peripherals (2-4-3)
Theory and practices involved in computer peripherals, operation and maintenance techniques, and specialized test equipment.

CPMT 2302 Home Technology Integration (2-4-3)
Integration and maintenance of various home technology subsystems. Includes home automation, security and surveillance, home networks, video and audio networks, and structured wiring.

CPMT 2333 Computer Integration (2-4-3)
An advanced course in integration of hardware, software, and applications. Customization of computer systems for specific applications in engineering, multi-media, or data acquisition. Prerequisites: CPMT 2337.

CPMT 2337 Microcomputer Interfacing (2-4-3)
An interfacing course exploring the concepts and terminology involved in interfacing the internal architecture of the microcomputer with commonly used external devices. Prerequisites: CPMT 1311.

CPMT 2345 Computer System Troubleshooting (2-4-3)
Principles and practices involved in computer system troubleshooting techniques and repair procedures including advanced diagnostic test programs and the use of specialized test equipment. Prerequisites: CPMT 1343, CPMT 1347, & CPMT 2337.

CPMT 2350 Industry Certification Preparation (2-4-3)
Overview of the objectives for industry specific certification exam(s).

CPMT 2380 COOP: Computer Installation & Repair Technology (1-19-3)
CPMT 2381 COOP: Computer Installation & Repair Technology (1-19-3)
CPMT 2680 COOP: Computer Installation & Repair Technology (1-39-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisites: CPMT 1343, CPMT 1347, & CPMT 2337.

ENGL 1301 (see English/Communications)

GAME 1301 (see Computer Science Software Development)

HRPO 1311 (see Behavioral/Social Sciences)

ITSC 1307 (see Computer Science Software Development)

ITSC 1321 Intermediate Pc Operating Systems (2-4-3)
Advanced operating system installation, configuration, and troubleshooting. Management of file systems, memory, and peripheral devices. Prerequisites: ITSC 1305.

ITSC 2339 Personal Computer Help Desk (2-4-3)
Diagnosis and solution of user hardware and software related problems with on-the-job and/or simulated projects in either a Help Desk lab or in short-term assignments for local business. Prerequisites: CPMT 1303.

ITSC 1305 Intro PC Operating Systems (2-4-3)
A study of personal computer operating systems. Topics include installation and configuration, file management, memory and storage management, control of peripheral devices, and use of utilities.

ITSC 1325 Personal Computer Hardware (2-4-3)
A study of current personal computer hardware including personal computer assembly and upgrading setup and configuration, and troubleshooting. Prerequisites: ITSC 1301 & ITSC 1305.

ITSE 1331 (see Computer Science Software Development)

MATH 1314 (see Math/Natural Sciences)

SPCH (see Speech Electives)

TECM 1303 (see Related Instruction)

Culinary Arts

BIOL 1408 (see Math/Natural Sciences)

BMGT 1327 (see Related Instruction)

CHEF 1205 Sanitation and Safety (1-2-2)
A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards.

CHEF 1301 Basic Food Preparation (1-8-3)
A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, material handling, heat transfer, sanitation, safety, nutrition and professionalism.

CHEF 1314 A la Carte Cooking (2-4-3)
A course in a la carte or "cooking to order" concepts. Topics include menu and recipe interpretation and conversion, organization of work station, employment of appropriate cooking methods, plating, and saucing principles. Prerequisites: CHEF 2301.

CHEF 2301 Intermediate Food Preparation (1-8-3)
Continuation of previous food preparation course. Topics include the concept of pre-cooked food items, as well as scratch preparation. Covers full range of food preparation techniques. Prerequisites: CHEF 1301.

CHEF 2480 COOP- Culinary Arts/Chef Training (1-29-4)
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

CHEF 2680 COOP-Culinary Arts/Chef Training (1-39-6)
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

ENGL 1301 (see English/Communications)

FDNS 1305 Nutrition (3-0-3)
A study of nutrients including functions, food sources, digestion, absorption and metabolism with application to normal and preventive nutrition needs. Includes nutrient intake analysis, energy expenditure evaluation, and diet planning.

HRPO 1311 (see Behavioral/Social Sciences)

IFWA 1205 Food Service Equipment & Planning (1-3-2)
A study of various types of food service equipment and the planning of equipment layout for product flow and efficient operation.

IFWA 1219 Meat Identifying and Processing (1-4-2)
A study of the identification and characteristics of wholesale and retail cuts of meat; hotel, restaurant, and institutional cuts of meat; U.S.D.A. quality grades; quality control; and the Federal Meat Inspection Regulation. Prerequisites: CHEF 1301.

IFWA 2341 Specialized Food Preparation (1-6-3)
A study of local and international cooking with actual preparation of local favorite dishes and common international favorites. Prerequisites: CHEF 2301.

IFWA 2437 Special Projects & Field Work (2-6-4)
Assignment to real or simulated projects in campus facilities or off campus locations which require the application of all knowledge and skills learned throughout the program. Prerequisites CHEF 2301.

PSTR 1401 Fundamentals of Baking (2-6-4)
Fundamentals of baking including dough, quick breads, pies, cakes, cookies, tarts, and doughnuts. Instruction in flours, fillings, and ingredients. Topics include baking terminology tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products. Prerequisites: CHEF 2301.

POFT 1301 (see Related Instruction)

POFT 1321 (see Related Instruction)

HRPO 1311 (see Behavioral/Social Sciences)

RSTO 1201 Beverage Management (1-4-2)
A study of the beverage service of the hospitality industry including spirits, wines, beers, and non-alcoholic beverages. Topics include purchasing, resource control, legistation, marketing, physical plant requirement, staffing, service, and the selection of wines to enhance foods.

RSTO 1204 Dining Room Service (1-4-2)
Introduces the principles, concepts, and systems of professional table service. Topics include dining room organization, scheduling, and management of food service personnel.

RSTO 1221 Menu Management (1-4-2)
A study of the food service principles involved in menu planning, layout, and evaluation for a variety of types of facilities and service methods. Emphasis on analysis of menu profitability, modification, commodity use, and other activities generated by the menu. Prerequisites: RSTO 2301.

RSTO 1313 Hospitality Supervision (2-4-3)
Fundamentals of recruiting, selection, and training of food service and hospitality personnel. Topics include job descriptions, schedules, work improvement, motivation, and applicable personnel laws and regulations. Emphasis on leadership development. Prerequisites: RSTO 2301.

RSTO 1325 Purchasing for Hospitality Operations (2-2-3)
Study of purchasing and inventory management of foods and other supplies to include development of purchase specifications, determination of order quantities, formal and informal price comparisons, proper receiving procedures, storage management, and issue procedures. Emphasis on product cost analysis, yields, pricing formulas, controls, and record keeping at each stage of the purchasing cycle.

RSTO 2301 Principles of Food & Beverage Controls (2-2-3)
A study of financial principles and controls of food service operation including review of operation including review of operation policies and procedures. Topics include financial budgeting and cost analysis emphasizing food and beverage labor costs, operational analysis, and international and regulatory reporting procedures.

RSTO 2307 Catering (1-4-3)
Principles, techniques, and applications for both on-premises, off-premises and group marketing of catering operations including food preparation, holding, and transporting techniques. Prerequisites: CHEF 2301.

SOCI 1301 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

Dental Assistant

DNTA 1245 Preventive Dentistry (1-3-2)
The study and prevention of dental diseases, community dental health research and projects, fluoridation, nutrition and nutritional counseling, visual aids, and oral hygiene instruction for dental patients. Prerequisites: DNTA 1305, DNTA 1311, & DNTA 1315.

DNTA 1251 Dental Office Management (1-3-2)
An introduction to business office procedures, including telephone management, appointment control, receipt of payment for dental services, completion of third-party reimbursement forms, supply inventory maintenance, data entry for charges and payments, managing recall systems, and operating basic business equipment. Prerequisites: DNTA 1353.

DNTA 1301 Dental Materials (2-3-3)
The theory of the structure, properties, and procedures related to dental materials. Includes safety and standard precautions practiced in the lab and classroom settings. Prerequisites: DNTA 1315.

DNTA 1305 Dental Radiology I (2-3-3)
Introduction to radiation physics, protection, the operation of radiographic equipment, exposure, processing and mounting of dental radiographs, using various types of radiographic series and different methods and techniques. Specific safety and standard precautions for the classroom and lab settings will be practiced.

DNTA 1311 Dental Science (2-4-3)
An introduction to anatomical systems with emphasis placed on head and neck anatomy. The supporting oral structures, embryology of the teeth, and tooth nomenclature are covered. Topics include the physiology and morphology of the deciduous and the permanent teeth along with basic dental terminology.

DNTA 1315 Chairside Assisting (2-4-3)
An introduction to pre-clinical chairside assisting procedures, instrumentation, infection and hazard control protocol, equipment safety and maintenance.

DNTA 1347 Advanced Dental Science (2-2-3)
A study of anatomical systems with emphasis on pharmacology, oral pathology and development abnormalities. Prerequisites: DNTA 1353.

DNTA 1349 Dental Radiology in the Clinic (2-3-3)
The practical application of exposing, processing and mounting of dental radiographs obtained by utilizing various radiographic techniques. This course will encompass critical evaluation of all procedures. Prerequisites: DNTA 1315.

DNTA 1353 Dental Assisting Applications (2-4-3)
This course incorporates comprehensive procedures and applications for the general and specialty areas of dentistry. Prerequisites: DNTA 1315.

DNTA 1447 Advanced Dental Science (4-0-4)
Anatomical systems with emphasis on pharmacology, oral pathology and developmental abnormalities.

DNTA 1560 Clinical - Dental Assistant (0-21-5)
A method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisites: DNTA 1353.

DNTA 1660 Clinical Dental Assistant
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skill, and concepts. Direct supervision is provided by the clinical professional.

HRPO 1311 (see Behavioral/Social Sciences)

POFT 1301 (see Related Instruction)

Dental Hygiene

BIOL (see Math/Natural Sciences)

CHEM 1411 (see Math/Natural Sciences)

DHYG 1123 Dental Hygiene Practice(1-0-1)
Examination of the dental hygienist's role in practice settings including dental office management, employment considerations, resume preparation, and job interviewing. Emphasis on the laws governing the practice of dentistry and dental hygiene, moral standards, and the ethical standards established by the dental hygiene profession. Prerequisites: DHYG 2360.

DHYG 1207 General & Dental Nutrition (2-0-2)
A study of general nutrition and nutritional biochemistry with emphasis on the effects of nutrition and dental health. Analysis of diet and application of counseling strategies to assist the patient in attaining and maintaining optimum oral health care stressed. Prerequisites: DHYG 2360.

DHYG 1211 Periodontology (1-2-2)
Study of normal and diseased periodontium to include the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics in a contemporary private practice setting. Prerequisites: DHYG 1331.

DHYG 1215 Community Dentistry (1-4-2)
Study of the principles and concepts of community public health and dental health education with an emphasis on community assessment, educational planning, implementation, and evaluation. Laboratory emphasizes methods and materials used in teaching dental health education in various community settings. Prerequisites: DHYG 1360.

DHYG 1227 Preventive Dental Hygiene Care (1-3-2)
Study of the dental hygienist in the dental health care system and the basic concepts of disease prevention and health promotion. Communication and behavior modification skills are emphasized to facilitate the role of the dental hygienist as an educator. Prerequisites: CHEM 1411.

DHYG 1235 Pharmacology for Dental Hygienist (1-2-2)
A study of the classes of drugs and their uses, actions, interactions, side effects, contraindictions, and oral manifestations with emphasis on dental applications. Prerequisites: DHYG 1331.

DHYG 1239 General & Oral Pathology (1-2-2)
General study of disturbances in human body development, diseases of the body, and disease prevention measures. Emphasis on the oral cavity and associated structures. Prerequisites: DHYG 1360.

DHYG 1260 Clinical-Dental Hygiene/Hygienist I (0-14-3)
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

DHYG 1301 Orofacial Anatomy, Histology & Embryology (2-4-3)
A study of histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification. Prerequisites: CHEM 1411.

DHYG 1304 Dental Radiology (2-2-3)
A study of radiation physics, biology, hygiene, and safety theories. Emphasis on the fundamentals of oral radiographic techniques and interpretation of radiographs. Includes exposure of intra-oral radiographs, quality assurance, radiographic interpretation, patient selection criteria, and other ancillary radiographic techniques. Prerequisites: CHEM 1411.

DHYG 1319 Dental Materials(2-3-3)
Study of dental materials including the physical and chemical properties and application of the various materials used in dentistry. Student experiences include manipulation of dental materials in the lab setting. Prerequisites: DHYG 1331.

DHYG 1331 Preclinical Dental Hygiene(1-6-3)
Foundational knowledge for performing clinical skills on patients. Emphasis on principles, procedures, and professionalism for performing comprehensive oral prophylaxis. Prerequisites: CHEM 1411.

DHYG 1360 Clinical-Dental Hygiene/Hygienist II (0-14-3)
A method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Prerequisites: DHYG 1331.

DHYG 2301 Contemporary Dental Hygiene Care I (2-2-3)
Introduction to dental hygiene care for the medically or dentally compromised patient. Emphasizes supplemental instrumentation techniques. Prerequisites: DHYG 1360.

DHYG 2360 Clinical- Dental Hygiene/Hygienist III (0-14-3)
Prerequisite: 4th semester standing, DHYG 1360

DHYG 2361 Clinical- Dental Hygiene/Hygienist IV (0-14-3)
A method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external experiences. Course may be repeated if topics and learning outcomes vary. Prerequisites: 5th semester standing, DHYG 1360.

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

SOCI 1301 (see Behavioral/Social Sciences)

PSYC 2301 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

Dental Laboratory Technology

DLBT 1201 Dental Anatomy/Tooth Morphology (1-4-2)
Study of the anatomy of the head and neck including the maxila, mandible, and temporomandibular joint. Emphasis on natural dentition, tooth anatomy, form, function, nomenclature, tooth drawing, and wax carving.

DLBT 1205 Dental Materials(1-4-2)
Study of dental materials and their uses in the fabrication of all types of dental protheses.

DLBT 1209 Removable Partial Denture Tech I (1-4-2)
Introduction to removal partial dentures. Topics include temporary partials and treatment partials with wrought clasps.

DLBT 1213 Complete Denture Techniques I (1-4-2)
Introduction to the fabrication of complete dentures. Topics include edentulous arch anatomical lanmarks, edentulous cast preparation, impressions, trays, baseplates, occlusal rims, and artificial tooth arrangement.

DLBT 1217 Fixed Restorative Techniques I (1-4-2)
Introduction to fixed restorative techniques. Topics include types of casts with removable dies and fabrication of posterior wax patterns.

DLBT 2204 Removable Partial Denture Technique II(1-4-2)
Study of the components of removable partial dentures and the methods of surveying and designing and fabricating removable partial dentures. Prerequisites: DLBT 1209.

DLBT 2207 Complete Denture Techniques II (1-4-2)
Comprehensive study and practice of the procedures required to construct complete maxillary and mandibular dentures from the final impression to the finished appliance. Prerequisites: DLBT 1213.

DLBT 2211 Fixed Restorative Techniques II (1-4-2)
Continuation of construction of wax patterns for single unit crowns by spruing, investing, casting, and polishing the metal crown. Prerequisites: DLBT 1217.

DLBT 2215 Removable Partial Dentures Techniques III (1-4-2)
Comprehensive study of and practice in the phases of partial denture contraction with emphasis on complex dental prostheses. Prerequisites: DLBT 2204.

DLBT 2217 Complete Denture Techniques III (1-4-2)
Introduction to the semi-adjustable articulator and techniques required to repair, reline, and rebase complete dentures. Emphasis on the completion of balanced set-ups. Prerequisites: DLBT 2207.

DLBT 2231 Removable Partial Denture Techniques IV (1-4-2)
Continued instruction in fabrication of removable partial dentures of more complex designs. Emphasis on metal onlays, unilateral tooth-borne partials, and combination cases. Prerequisites: DLBT-2215.

DLBT 2233 Complete Denture Techniques IV (1-4-2)
Continued instruction in the fabrication of complete dentures. Emphasis on the semi-adjustable articulator using various occlusal theories and different forms of posterior teeth. Set-up modifications for Class II and Class III relationships will be discussed. Prerequisites: DLBT 2217.

DLBT 2235 Fixed Restorative Techniques IV (1-4-2)
Construction of multiple-unit bridges with emphasis on rigid and non-ridig connectors. Prerequisites: DLBT 2321.

DLBT 2241 Dental Ceramics I (1-4-2)
Introduction to dental ceramic procedures with emphasis on porcelain and metal substructures. Topics include individual and bridge copings, waxing, casting, and preparation for porcelain adaptation.

DLBT 2242 Dental Ceramics II (1-4-2)
Construction of single and multiple-unit ceramic teeth including characterization and shading of teeth. Emphasis on anterior teeth. Prerequisites: DLBT 2241.

DLBT 2244 Intro to Orthodontics Procedures(1-4-2)
Introduction to orthodontic dental laboratory procedures. Emphasis on wire bending, soldering, and removable acrylic resin appliances.

DLBT 2321 Fixed Restorative Techniques III (1-4-3)
Continued refinements in porcelain-fused-to-metal restorations, both single and multi-unit. Introduction to and experience in fabricating crowns, ceramic shade control, characterization, and effect staining. Emphasis on tooth staining and troubleshooting techniques used in ceramic restorations. Experience in the repair of single and multi-unit fixed partial dentures. Prerequisites: DLBT 2211.

DLBT 2430 Special Project in Dental Lab Procedures(2-8-4)
Culmination of instruction in practical laboratory procedures with the emphasis on specialized areas of choice.

DLBT 2446 Practical Lab Procedures (2-8-4)
Comprehensive study of basic commercial laboratory procedures employed while performing specialties in separate departments in actual or simulated situations. Includes laboratory procedures associated with following doctor's prescriptions, quality control, check billing, and mailing. Prerequisites: DLBT 2235.

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

MATH 1314 (see Math/Natural Sciences)

POFT 1301 (see Related Instruction)

PSYC 2301 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

TECM 1303 (see Related Instruction)

Developmental/Remedial

DMTH 0050 Basic Mathematics (3-1-3)
A study of fundamental mathematics involving operations on whole numbers, fractions, decimals and percents, data analysis, real numbers, algebraic expressions, and elementary equations.

DMTH 0801 Mathematics Lab (0-1-1)
DMTH 0802 Mathematics Lab (0-2-2)
DMTH 0803 Mathematics Lab (0-3-3)
This course is designed for students to participate in remedial math studies on an individual basis. Course content is customized to each student's specific deficiencies in math. Semester credit hours vary depending on students' specific needs. Course may be repeated for credit. The last digit of the course number indicates the semester credit hours. When appropriate, and with developmental department approval, this course may substitute for a course on the student's TSI Plan. Prerequisite: Instructor approval.

DMTH 0100 Introductory Algebra (3-1-3)
A study of geometry and elementary algebra involving real numbers, algebraic expressions, equations, inequalities, graphs, slopes, and operations with polynomials. Prerequisite: Grade of C or better in DMTH 0050 or Math placement test equivalent.

DMTH 0200 Intermediate Algebra (3-1-3)
A study of intermediate algebra that includes polynomial factoring, rational expressions and equations, systems of equations, radical expressions and equations, and quadratic equations. Prerequisite: Grade of C or better in DMTH 0100 or Math placement test equivalent.

READ 0050 Basic Reading Skills (3-1-3)
Fundamental reading skills to develop comprehension, vocabulary, and rate. Includes intensive, diagnostic-based instruction in basic word attack skills, vocabulary development and basic comprehension strands; main idea, major or minor supporting details, information retention, fact/opinion identification, inferences, and critical reading. Individual and group tutoring, counseling, and computer-assisted learning are available.

READ 0801 Reading Lab (0-1-1)
READ 0802 Reading Lab (0-2-2)
READ 0803 Reading Lab (0-3-3)
This course is designed for students to participate in remedial reading studies on an individual basis. Course content is customized to each student's specific deficiencies in reading. Semester credit hours vary depending on students' specific needs. Course may be repeated for credit. The last digit of the course number indicates the semester credit hours. When appropriate, and with developmental department approval, this course may substitute for a course on the student's TSI Plan. Prerequisite: Instructor approval.

READ 0100 Reading Skills I (3-1-3)
Fundamental reading skills to develop comprehension, vocabulary, and rate. This course is designed to enable college students to become more aware of themselves as readers and to develop strategies and skills to meet the demands of college reading. Emphasis is placed on vocabulary, study skills, and the comprehension strands. Individual and group tutoring, counseling, and computer-assisted learning are available. Prerequisite: Grade of C or better in READ 0050 or departmental placement test equivalent.

READ 0200 Reading Skills II (3-1-3)
Fundamental reading skills to develop comprehension, vocabulary, and rate. Focus is on increased proficiency in basic forms of expository writing and critical reading skills in addition to vocabulary, study skills, and the comprehension strand essential to success in academic and technical fields of study. Individual and group tutoring, counseling, and computer-assisted learning are available. Prerequisite: Grade of C or better in READ 0100 or departmental placement test equivalent.

WRIT 0050 Basic Writing Skills (3-1-3)
Development of fundamental writing skills such as idea generation, organization, style, utilization of standard English, and revision. This course provides instruction in writing standard English. The emphasis is on vocabulary, application of grammar, spelling, standard English usage, and organization of ideas. Individual and group tutoring, counseling, and computer-assisted learning are available.

WRIT 0801 Writing Lab (0-1-1)
WRIT 0802 Writing Lab (0-2-2)
WRIT 0803 Writing Lab (0-3-3)
This course is designed for students to participate in remedial writing studies on an individual basis. Course content is customized to each student's specific deficiencies in writing. Semester credit hours vary depending on students' specific needs. Course may be repeated for credit. The last digit of the course number indicates the semester credit hours. When appropriate, and with developmental department approval, this course may substitute for a course on the student's TSI Plan. Prerequisite: Instructor approval

WRIT 0100 Writing Skills I (3-1-3)
Development of fundamental writing skills such as idea generation, organization, style, utilization of standard English, and revision. This course provides instruction in fundamental writing skills. Emphasis is placed on writing and revising paragraphs and essays using standard English. Individual and group tutoring, counseling, and computer-assisted learning are available. Prerequisite: Grade of C or better in WRIT 0050 or departmental placement test equivalent.

WRIT 0200 Writing Skills II (3-1-3)
Development of fundamental writing skills such as idea generation, organization, style, utilization of standard English, and revision. Emphasis is placed on different methods of composition development with an advanced review of grammar, sentence structure, punctuation, and commonly-confused words. Individual and group tutoring, counseling, and computer-assisted learning are available. Prerequisite: Grade of C or better in WRIT 0100 or departmental placement test equivalent.

Digital Media Design Technology

ARTC 1302 Digital Imaging I (2-4-3)
Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions. Prerequisites: HRPO 1311.

ARTC 1305 Basic Graphic Design (2-4-3)
A study of two-dimensional (2-D) design with emphasis on the visual communication design process. Topics include basic terminology and graphic design principles.

ARTC 1313 Digital Publishing I (2-4-3)
The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout. Prerequisites: ARTC 1302.

ARTC 2305 Digital Imaging II (2-4-3)
General principles of digital image processing and electronic painting. Emphasis on bitmapped or raster-based image marking and the creative aspects of electronic illustration for commercial and fine art applications.

ARTC 2313 Digital Publishing II (2-4-3)
Layout procedures from thumbnails and roughs to final comprehensive and printing; emphasis on design principles for the creation of advertising and publishing materials, and techniques for efficient planning and documenting projects. Prerequisites: ARTC 1313.

ARTC 2335 Portfolio Development for Graph Design (2-4-3)
Preparation of a portfolio comprised of completed graphic design projects. Evaluation and demonstration of portfolio presentation methods based on the student's specific area of study.

ARTV 1341 3-D Animation I (2-4-3)
Three-dimensional (3-D) modeling and rendering techniques including lighting, staging, camera, and special effects. Emphasizes 3-D modeling building blocks using primitives to create simple and complex objects.

ARTV 1343 Digital Sound (2-4-3)
Digitizing sound and incorporating it into multimedia or web titles for various delivery systems. Emphasizes compression issues, sampling, synchronizing, and resource management.

ARTV 1351 Digital Video (2-4-3)
Producing and editing video and sound for multimedia or web productions. Emphasizes capture, editing, and outputting of video using a desktop digital video workstation.

ARTV 2341 Advanced Digital Video (2-4-3)
Advanced digital video techniques for post-production. Emphasizes generation and integration of special effects, 2-D animation and 3-D animation for film, video, CD-ROM, and the Internet. Exploration of new and emerging compression and video streaming technologies.

ARTV 2351 3-D Animation II (2-4-3)
Skill development in three-dimensional modeling and rendering techniques using lighting, staging, and special effects for digital output. Emphasis on the production of three-dimensional (3-D) animation as final digital outputting using modeling, rendering and animation software.

BMGT 1345 (see Related Instruction)

ENGL 1301, ENGL 2314 (see English/Communications)

GRPH 1359 Object Oriented Computer Graphics (2-4-3)
Mastery of the tools and transformation options of an industry standard draw program to create complex illustrations and follow them through to the color output stage. Mastery in the use of basic elements of good layout and design principles and use of the capabilities specific to vector (object oriented) drawing software to manipulate both text and graphics with emphasis on the use of bezier curves. Acquisition of images via scanning and the creative use of clipart is included. Prerequisites: ARTC 1302.

GRPH 1380 COOP-Prepress/Desktop Publishing and Digital Imaging Design (1-19-3)
GRPH 2380 COOP: Prepress/Desktop Publishing & Digital Imaging Design (1-19-3)
GRPH 2680 COOP: Prepress/Desktop Publishing & Digital Imaging Design (1-39-6)
An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisites: IMED 1343, ARTC 2313, IMED 1316, IMED 1351, & IMED 1345.

HRPO 1311 (see Behavioral/Social Sciences)

IMED 1316 Web Page Design I (2-4-3)
Instruction in Internet web page design and related graphic design issues including mark-up languages, web sites, Internet access software, and interactive topics.

IMED 1345 Interactive Multimedia (2-4-3)
Exploration of the use of graphics and sound to create time-based interactive multimedia animations using industry standard authoring software.

IMED 2311 Portfolio Development (2-4-3)
Emphasis on preparation and enhancement of portfolio to meet professional standards, professional organizations, presentation skills, and job-seeking techniques.

IMED 2315 Web Page Design II (2-4-3)
A study of hypertext mark-up language (HTML) and interesting layout techniques for creating and engaging well designed web pages. Emphasis on identifying the target audience and producing a web site according to physical and technical limitations, cultural appearance, and legal issues.

IMED 2345 Interact Multimedia II (2-4-3)
Instruction in the use of scripting language to create interactive multimedia projects. Topics include building a user interface, writing script, testing and debugging.

MATH 1314, MATH 1332 (see Math/Natural Sciences)

PHTC 1311 Fundamentals of Photography (2-4-3)
An introduction to camera operation and image production, composition, supplemental lighting, and use of exposure meters and filters.

English/Communications

COMM 2311 News Gathering & Writing I (3-0-3)
Fundamentals of writing news for the mass media. Includes instruction in methods and techniques for gathering, processing, and delivering news in a professional manner. Prerequisite: ENGL 1301.

ENGL 1301 Composition I (3-0-3)
Principles and techniques of written, expository, and persuasive composition; analysis of literary, expository, and persuasive texts; and critical thinking. Prerequisite: Grade of C or better in READ 0200 and WRIT 0200 or English placement test equivalent.

ENGL 1302 Composition II (3-0-3)
Principles and techniques of written, expository, and persuasive composition; analysis of literary, expository, and persuasive texts; and critical thinking. Prerequisite: Grade of C or better in ENGL 1301.

ENGL 2314 Technical & Business Writing I (3-0-3)
Principles, techniques, and skills needed for college level scientific, technical, or business writing. Prerequisite: Grade of C or better in ENGL 1301.

ENGL 2321 British Literature (3-0-3)
Selected significant works of British literature. May include study of movements, schools, or periods. Prerequisite: Grade of C or better in ENGL 1301.

ENGL 2326 American Literature (3-0-3)
Selected significant works of American literature. May include study of movements, schools, or periods. Prerequisite: Grade of C or better in ENGL 1301.

ENGL 2331 World Literature (3-0-3)
Selected significant works of world literature. May include study of movements, schools, or periods. Prerequisite: Grade of C or better in ENGL 1301.

Education and Training

CDEC 1318 Nutrition/Health/Safety (3-0-3)
Factors impacting the well-being of young children. Includes healthy behavior, food, nutrition, fitness, and safety practices. Focuses on local and national standards and legal implications of relevant policies and regulations. Course content is aligned with State Board of Educator Certification Pedagogy and Professional Responsibilities standards. Requires students to participate in a minimum of 15 hours field experience with children from infancy through age 12 in a variety of settings with varied and diverse populations

CDEC 1321 The Infants & Toddlers (3-0-3)
A study of appropriate infant and toddler programs (birth to age 3), including an overview of development, quality caregiving routines, appropriate environments, materials and activities and teaching/guidance techniques.

CDEC 1356 Emergent Lit for Early Childhood (2-4-3)
An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based integrated curriculum.

CDEC 1359 Child/With Special Needs (2-4-3)
A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, intervention strategies, available resources, referral processes, the advocacy role, and legislative issues.

CDEC 2326 Admin of Program for Children I (3-0-3)
A practical application of management procedures for early child care education programs, including a study of planning, operating, supervising, and evaluating programs. Topics on philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication.

CDEC 2328 Administration of Programs for Children II (3-0-3)
An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management, advocacy, professionalism, fiscal analysis and planning parent education/partnerships and technical applications in programs.

CDEC 2340 Instructional Techniques/Special Needs Children (2-4-3)
Exploration of development and implementation of curriculum for children with special needs.

EDTC 1164 Practicum Teacher Assistant/Aide (0-10-1)
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EDTC 1264 Practicum-Teacher Assistant/Aide (0-14-2)
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EDTC 1301 Educational Systems (2-4-3)
A study of the role and responsibilities of educational personnel with emphasis on development of professionalism and effective communication strategies with adults. Topics include the various codes of ethics governing the educational field, the issue of confidentiality, learners' rights and responsibilities, and challenges facing schools.

EDTC 1307 Intro to Teaching Reading (2-4-3)
Fundamental concepts and principles of reading instruction. Topics include readiness, beginning reading instruction, how literacy emerges classroom learning environments, word-attach skills, comprehension, other aspects of the reading program, and examination of varied materials and techniques for teaching reading.

EDTC 1311 Instructional Practice/Effective Learning Environment (2-4-3)
A study of developmentally appropriate strategies in core curriculum areas and the environment. Topics include methods for supporting the lead classroom teacher in planning and implementing educational goals, teamwork skills, and ways of providing and reporting instructional accommodations or modifications.

EDTC 1313 Educational Software & Technology (3-0-3)
Introduction to the use of computer hardware and software in the educational setting including opportunities for guided instruction with several software applications.

EDTC 1321 Bilingual Education (2-2-3)
A course in the core techniques of bilingual education. Topics include awareness of cultural diversity, teaching techniques, material development, and historical and philosophical concepts of bilingual/bicultural education.

EDTC 1341 Instructional Tech and Computer Apps (2-2-3)
A course in specialized computer utilization for educators. Topics include the integration of educational computer terminology, system operations, software, and multimedia in the contemporary classroom environment.

EDTC 1325 Principles & Practices of Multicultural Education (3-0-3)
An examination of cultural diversity found in society and reflected in the classroom. Topics include the study of major cultures and their influence on lifestyle, behavior, learning, intercultural communication and teaching, as well as psychosocial stressors encountered by diverse cultural groups.

EDTC 1341 Instructional Tech/Computer Apps (2-2-3)
A course in specialized computer utilization for educators. Topics include the integration of educational computer terminology, system operations, software, and multimedia in the contemporary classroom environment.

EDTC 1364 Practicum-Teacher Assistant/Aide (0-21-3)
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EDTC 1393 Special Topics/Math in a Classroom Lab (3-0-3)
Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

EDTC 1394 Special topics: role of Teacher Assistant (2-4-3)
Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

EDTC 2305 Reading Problems (2-4-3)
In-depth coverage of reading difficulties. Emphasis on the theories, strategies, recognition, and remediation of reading problems. Topics include assessment, direct instruction, and motivational/interactive literacy activities.

EDTC 2317 Guiding Student Behavior (3-0-3)
A study of developmentally appropriate and indirect guidance techniques for use in various school environments. Topics include identification of causes of inappropriate behavior, establishing and managing routines, the environment's role in promoting positive behavior, promoting self-esteem negotiation/conflict resolution strategies, and enhancing positive self-direction. Emphasis in implementation of a behavior management plan.

ENGL 1301 (see English/Communications)

GOVT 2301, GOVT 2302 (see Behavioral/Social Sciences)

HIST 1301, HIST 1302 (see Behavioral/Social Sciences)

HRPO 1311 (see Behavioral/Social Sciences)

IMED 2301 Instructional Design (2-4-3)
An in-depth study of the instructional design process based on learning theories including evaluation of models and design examples.

MATH 1314 (see Math/Natural Sciences)

POFT 1301 (see Related Instruction)

SPAN (see Spanish)

SPCH (see Speech Electives)

Health Information Technology

BIOL 2401, BIOL 2402 (see Math/Natural Sciences)

ENGL 1301 (see English/Communications)

HITT 1211 (see Medical Information Specialist/Transcriptionist)

HITT 1249 Pharmacology (1-3-2)
Overview of the basic concepts of the pharmaco-logical treatment of various diseases affecting major body systems.

HITT 1253 Legal & Ethical Aspects of Health (1-2-2)
Concepts of confidentiality, ethics, health care legislation, and regulations relating to the maintenance and use of health information.

HITT 1255 Health Care Statistics (1-3-2)
General principles of health care statistics with emphasis in hospital statistics. Skill development in computation and calculation of health data with overview of guidelines for Texas Department of Health Vital Statistics and studies.

HITT 1301 Health Data Content & Structure (3-0-3)
Introduction to systems and processes for collecting, maintaining, and disseminating primary and secondary health related information. Instruction in delivery and organization structure to include content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens.

HITT 1305 (see Medical Information Specialist/Transcriptionist)

HITT 1341 Coding & Classification of Systems (2-4-3)
Application of basic coding rules, principles, guidelines, and conventions.

HITT 1342 Ambulatory Coding(2-4-3)
Application of basic coding rules, principles, guidelines, and conventions with emphasis on ambulatory coding.

HITT 1345 Health Care Delivery Systems(2-4-3)
Introduction to organization, financing, and delivery of health care services, accreditation, licensure, and regulatory agencies.

HITT 1349 Pharmacology (3-0-3)
Overview of the basic concepts of the pharmacological treatment of various diseases affecting major body systems.

HITT 2149 RHIT Competency Review (1-0-1)
Review Health Information Technology (HIT) competencies, skills, and knowledge.

HITT 2166 Practicum (0-8-1)
Practical general training and experiences in the workplace. The college with the employer develops and documents on individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary.

HITT 2239 Health Information Organization & Supervision (1-2-2)
Principles of organization and supervision of human, fiscal, and capital resources.

HITT 2266 Practicum - Health Information/Medical Records (0-16-2)
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary.

HITT 2335 Coding/Reimbursement Methodology (2-4-3)
Development of advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding perspective payment systems and methods of reimbursement.

HITT 2343 Quality Assessment & Performance Improvement (2-4-3)
Study of the many facets of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation and presentation of data in statistical formats, quality improvement functions quality tools, utilization management risk management, and medical staff data quality issues.

HPRS 2300 (see Allied Health Related Skills)

HRPO 1311 (see Behavioral/Social Sciences)

ITSC 1309 (see Business/Office Technology)

MDCA 1402 (see Medical Assistant)

PSYC 2301 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

Humanities/Fine Arts Electives

ANTH 2346 General Anthropology (3-0-3)
Study of human beings, their antecedents and related primates, and their cultural behavior and institutions. Introduces the major subfields: physical and cultural anthropology, archeology, linguistics, and ethnology.

ARTS 1301 Art Appreciation (3-0-3)
Exploration of purposes and processes in the visual arts including evaluation of selected works.

ARTS 1303 Art History I (3-0-3)
ARTS 1304 Art History II (3-0-3)
Examination of painting, sculpture, architecture, and other arts from prehistoric to present time.

ARTS 1316 Drawing I (3-0-3)
Investigation of drawing media and techniques including descriptive and expressive possibilities

MUSI 1306 Music Appreciation (3-0-3)
Understanding music through the study of cultural periods, major composers, and musical elements. Illustrated with audio recordings and live performances.

PHIL 1301 Introduction to Philosophy (3-0-3)
Introduction to the study of ideas and their logical structure, including arguments and investigations about abstract and real phenomena. Includes introduction to the history, theories, and methods of reasoning.

PHIL 1304 Introduction to World Religions (3-0-3)
A comparative study of various world religions.

PHIL 2306 Introduction to Ethics (3-0-3)
Classical and contemporary theories concerning the good life, human conduct in society, and moral and ethical standards.

SOCI 2319 Minority Studies (3-0-3)
Historical, economic, social, and cultural development of minority groups. May include African-American, Mexican American, Asian American, and Native American issues.

Machining Technology
Mold, Tool and Die Making

ENGL 1301 (see English/Communications)

HRPO 1311 (see Related Instruction)

MATH 1314 (see Math/Natural Sciences)

MCHN 1302 Machinist II (3-0-3)
A study of different blueprints, with emphasis on machine blueprints, and the application of each.

MCHN 1305 Metals and Heat Treatment (2-3-3)
Designed for students going onto the workforce as CNC Operators, manual machinists, tool designers, or heat treat operators. Topics include properties of metals and heat treatment of metals. Prerequisites: MCHN 1313 & MCHN 1308.

MCHN 1308 Basic Lathe (1-6-3)
An introduction to the common types of lathes. Emphasis on basic parts, nomenclature, lathe operations, safety, machine mathematics, blueprint reading, and theory. Prerequisites: MCHN 1317 & MCHN 1338.

MCHN 1313 Basic Milling Operation (1-6-3)
An introduction to the common types of milling machines, basic parts, nomenclautre, basic operations and procedures, machine operations, safety; machine mathematics; blueprint reading; and theory. Prerequisites: MCHN 1317 & MCHN 1338.

MCHN 1320 Precision Tools & Measurement (2-3-3)
An introduction to the modern science of dimensional metrology. Emphasis on the identification, selection, and application of various types of precision instruments associated with the machining trade. Practice of basic layout and piece part measurement while using standard measuring tools.

MCHN 1335 Grinders Outside/Internal/Surface (1-6-3)
An introduction to types and operation of OD, and surface grinders. Emphasis on identification, selection, and replacement of grinding wheels. Related topics include math, blueprint, and safety. Prerequisites: MCHN 1305, MCHN 1358, MCHN 2302, & MCHN 2335.

MCHN 1338 Basic Machine Shop I (1-6-3)
An introduction to machine shop theory, math and terminology, basic bench work, and part layout using a variety of common measuring tools. Application of basic operation of machine tools, such as bandsaws, grinders, drill presses, lathes and mills with common hand tools.

MCHN 1343 Machine Shop Math (3-0-3)
Designed to prepare the student with technical, applied mathematics that will be necessary in future machine shop-related courses.

MCHN 1358 Intermediate Lathe Operation (1-6-3)
A continuation of Basic Lathe Operations. Emphasis on proficiency practice in lathe operations. Identification and operation of lathe machine tools, including basic tapered form turning and basic threading operations. Prerequisites: MCHN 1308.

MCHN 2302 Intermediate Milling Operation (1-6-3)
A continuation of Basic Milling Operations with emphasis on the continued proficiency practice in mill operation. Identification and operation of milling machines and support tooling including keyseat cutter, staggertooth cutters, rotary table and dividing heads. Prerequisites: MCHN 1313.

MCHN 2303 Fund of CNC Machine Controls (1-6-3)
An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines.

MCHN 2335 Advanced CNC Machining (1-6-3)
The study of advanced CNC operation with an emphasis on programming and operations of machining and turning centers. Prerequisites: MCHN 2303.

MCHN 2337 Advance Milling Operations (1-6-3)
An advanced study of milling machine operations. Identification and/or use of milling cutters and support tooling including end mills, slab mills, face mills, involute cutters, rotary tables, and indexing heads. A review of related math and machines theory. Prerequisites: MCHN 2302, MCHN 2335, MCHN 1305, & MCHN 1358.

MCHN 2447 Specialized Tools & Fixtures (2-6-4)
An advanced course in the designing and building of special tools, such as jigs, fixtures, punch press dies, and molds. Machining and assembling of a production tool, using conventional machine shop equipment. Application of production tool theory, care, and maintenance. Prerequisites: MCHN 1305, MCHN 1358, MCHN 2302, & MCHN 2335.

MCHN 2370 Mold Making/Repair
This course is designed to give the student basic concepts of common mold making and tool making practices. Different types of molds used in industry and the associated terminology with be stressed. Standard mold bases and mold components are covered. Basic concepts involved in tool and die construction which includes bending, blanking, piercing, guiding, stripping, and dies stops will stressed. Compound, progressive and inverted dies covered. Precision machined mold and die parts will be manufactured to print specifications.

MCHN 2372 Tool & Die Making and Repair
A continuation of MCHN 2370 with emphasis on mold and die repair modification. The student will rebuild mold sections with the use of tungsten arc welding and grind and polish the core or cavity to original condition. Additional experience in the computation of cam blocks, angle pins and shrinkage will be acquired. Repairing or manufacturing of die parts which perform trimming, notching, piercing, blanking, piloting or forming will be stressed. An induction to quality assurance principles and geometric dimensioning will be included.

MCHN 2447 Spec Tools & Fixtures
An advanced course in the designing and building of special tools, such as jigs, fixtures, punch press dies, and molds. Machining and assembling of a production tool, using conventional machine shop equipment. Application of production tool theory, care, and maintenance.

MCHN 2480 COOP: Machine Tool Technology/Machinist (1-29-4)
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

SPCH (see Speech Electives)

WLDG 1206 (see Welding Technology)

Math/Natural Sciences

BIOL 1406 Biology for Science Majors I (Plant Studies) (3-3-4)
BIOL 1407 Biology for Science Majors II (Animal Studies) (3-3-4)
Fundamental principles of living organisms including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of reproduction, genetics, ecology, and the scientific method are included.

BIOL 1408 Biology for Non-Science Majors I (3-3-4)
Fundamental principles of living organisms including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of reproduction, genetics, ecology, and the scientific method are included. A brief survey of prokaryote and eukaryote cells, plants, protist and fungi as well as an overview of the morphology and reproduction of various plants and fungi is discussed in this course.

BIOL 1409 Biology for Non-Science Majors II (3-3-4)
Fundamental principles of living organisms including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of reproduction, genetics, ecology, and the scientific method are included. This course includes a discussion of animal cell structure and an overview of human anatomy and physiology of various organ systems.

BIOL 2401 Anatomy & Physiology I (3-3-4)
Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized. This course includes a study of subcellular organelle and tissue functions.

BIOL 2402 Anatomy & Physiology II (3-3-4)
Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized. Prerequisite: BIOL 2401.

BIOL 2421 Microbiology for Science Majors (3-3-4)
Study of the morphology, physiology, and taxonomy of representative groups of pathogenic and nonpathogenic microorganisms. Pure cultures of microorganisms grown on selected media are used in learning laboratory techniques. Includes a brief preview of food microbes, public health, and immunology. Prerequisite: BIOL 2401.

CHEM 1405 Introductory Chemistry I (3-3-4)
Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1411 General Chemistry I (3-3-4)
General principles, problems, fundamental laws, and theories. Course content provides a foundation for work in advanced chemistry and related sciences. Prerequisite: MATH 1314 or Math placement test equivalent.

CHEM 1412 General Chemistry II (3-3-4)
General principles, problems, fundamental laws, and theories. Course content provides a foundation for work in advanced chemistry and related sciences. Prerequisite: CHEM 1411.

MATH 1314 College Algebra (3-0-3)
Study of quadratics; polynomial, rational, logarithmic, and exponential functions; systems of equations; progressions; sequences and series; and matrices and determinants. Prerequisite: Grade of C or better in DMTH 0200 or Math placement test equivalent.

MATH 1316 Plane Trigonometry (3-0-3)
Trigonometric functions, identities, equations, and applications. Prerequisite: MATH 1314.

MATH 1324 Mathematics for Business & Social Sciences I (3-0-3)
Topics from college algebra (linear equations, quadratic equations, functions and graphs, inequalities), mathematics of finance (simple and compound interest, annuities), linear programming, matrices, systems of linear equations, applications to management, economics, and business. Prerequisite: Grade of C or better in DMTH 0200 or Math placement test equivalent.

MATH 1325 Mathematics for Business & Social Sciences II (3-0-3)
Limits and continuity, derivatives, graphing and optimization, exponential and logarithmic functions, antiderivatives, integration, applications to management, economics, and business. Prerequisite: MATH 1324 or equivalent.

MATH 1332 Contemporary Mathematics I (3-0-3)
Topics may include introductory treatments of sets, logic, number systems, number theory, relations, functions, probability and statistics. Appropriate applications are included. Prerequisite: Grade of C or better in DMTH 0200 or Math placement test equivalent.

MATH 1350 Fundamentals of Mathematics I (3-0-3)
Concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, integers, rational, and real number systems with an emphasis on problem solving and critical thinking. Prerequisite: Grade of C or better in DMTH 0200 or Math placement test equivalent.

MATH 1351 Fundamentals of Mathematics II (3-0-3)
Concepts of geometry, probability, and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4 though 8) teacher certification. Prerequisite: MATH 1350.

MATH 2312 Precalculus Math (3-0-3)
Applications of algebra and trigonometry to the study of elementary functions and their graphs including polynomial, rational, exponential, logarithmic, and trigonometric functions. May include topics from analytical geometry. Prerequisite: MATH 1314.

MATH 2318 Linear Algebra (3-0-3)
Finite dimensional vector spaces, linear transformations and matrices, quadratic forms, and eigen values and eigen vectors. Prerequisite: MATH 1314.

MATH 2320 Differential Equations (3-0-3)
Solutions of ordinary differential equations and applications. Prerequisite: MATH 2414.

MATH 2342 Elementary Statistical Methods (3-0-3)
Presentation and interpretation of data, probability, sampling, correlation and regression, analysis of variance, and the use of statistical software. Prerequisite: MATH 1314.

MATH 2413 Calculus I (4-0-4)
Functions, limits, continuity, the derivative with applications and integration of polynomials. Prerequisite: MATH 1316 or MATH 2312.

MATH 2414 Calculus II (4-0-4)
Derivatives and integration of transcendental functions, integration methods and applications, infinite sequences and series. Prerequisite: MATH 2413.

MATH 2415 Calculus III (4-0-4)
The study of vector analysis, partial differentiation, and multiple integration. Prerequisite: MATH 2414.

PHYS 1401 College Physics I (3-3-4)
Algebra-level physics sequence, with laboratories, that includes study of mechanics, heat, waves, and sound. Focus will be on principles and applications of mechanics, wave motion, heat, and sound with emphasis on fundamental concepts, problem solving, notation and units. Prerequisite: MATH 1316.

PHYS 1402 College Physics II (3-3-4)
Algebra-level physics sequence, with laboratories, that includes study of electricity and magnetism, and modern physics. Focus will be on principles and application of electricity, magnetism, and optics with emphasis on fundamental concepts, problem solving, notation and units. Prerequisite: PHYS 1401.

PHYS 2425 University Physics I (3-3-4)
Calculus-level physics sequence, with laboratories, that includes study of mechanics, heat, and sound. Emphasis will be on study of mechanics, including vibrations and sound wave, heat and thermo-dynamics. Prerequisite: MATH 2413.

PHYS 2426 University Physics II (3-3-4)
Calculus-level physics sequence, with laboratories, that includes study of electricity and magnetism. Emphasis will be on study of electromagnetic theory and applications, electromagnetic waves, optics, solid state and modern physics. Prerequisite: PHYS 2425.

Mechatronics Technology

CETT 1303 DC Circuits (2-4-3)
A study of the fundamentals of direct current including Ohm's law, Kirchoff's laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Prerequisites: DMTH 0200 or TECM 1303.

CETT 1304 Surface Mount Soldering(2-4-3)
Instruction in this course will teach high reliability soldering, desoldering, circuitry repair, plated-thru-hole repairs, conformal coating removal, basic EOS ESD control, surface mount device (SMD) installation, removal and replacement using hand held systems or reflow workstations.

CETT 1305 AC Circuits (2-4-3)
A study of the fundamentals of alternating current including series and parallel AC circuits, phasors capacitive and inductive networks, transformers, and resonance. Prerequisites: CETT1303.

CETT 1307 Fundamentals of Electronics(2-4-3)
Applies concepts of electricity, electronics, and digital fundamentals; supports programs requiring a general knowledge of electronics.

CETT 1325 Digital Fundamentals (2-4-3)
An entry level course in digital electronics covering number systems, binary mathematics, digital codes, logic gates, Boolean algebra, Karnaugh maps, and combinational logic. Emphasis on circuit logic analysis and troubleshooting digital circuits. Prerequisites: CETT 1303.

CETT 1341 Solid State Circuits (2-4-3)
A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis. Prerequisites: CETT 1305.

CETT 1345 Microprocessors I (2-4-3)
An introductory course in microprocessor software and hardware; its architecture, timing sequence, operation, and programming; and discussion of appropriate software diagnostic language and tools. Prerequisites: CETT 1325.

CETT 1349 Digital System (2-4-3)
A course in electronics covering digital systems. Emphasis on application and troubleshooting digital systems using counter, registers, code converters, multiplexers, analog-to-digital to-analog circuits, and large-scale integrated circuits. Prerequisites: CETT 1375 or CETT 1325.

CETT 1357 Linear Integrated Circuit (2-4-3)
A study of the characteristics, operations, stabilization, testing, and feedback techniques of linear integrated circuits. Application in computation, measurements, instrumentation, and active filtering. Prerequisites: CETT 1379 or CETT 1341.

CETT 2333 Digital Comp Circuits (2-4-3)
A study of the three major component systems of a digital computer including arithmetic logic operations, RAM and ROM memory systems, and control systems.

CHEM 1411 (see Math/Natural Sciences)

EECT 1307 (see Telecommunications Technology)

ELMT 1301 Program Logic Controllers (2-4-3)
An introduction to programmable logic controllers as used in industrial environments including basic concepts; programming, applications, troubleshooting of ladder logic, and interfacing of equipment. Prerequisites: INTC 1357.

ELMT 1305 Basic Fluid Power (2-4-3)
Basic fluid power course including pneumatics, vacuum and hydraulics; symbols, theory, components and basic electrical controls.

ELMT 2330 Final Project (1-6-3)
The student will be required to plan and develop a project consisting of research, design, layout, construction and operation of an electrical-mechanical project. A formal written report and a demonstration and presentation of process and results is required.

ELMT 2333 Industrial Electronics (2-4-3)
A study of devices, circuits, and systems primarily used in automated manufacturing and/or process control including computer controls and interfacing between mechanical, electrical, electronic, and computer equipment. Presentation of programming schemes. Prerequisites: CETT 1305 & CETT-1325.

ELMT 2337 Elect Troubleshooting Service/Repair(1-6-3)
In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedures, repair checkout, and preventive maintenance. Emphasis on safety and proper use of test equipment. May be offered as a capstone course. Prerequisites: CETT 1341 or CETT 1379.

ELMT 2339 Advanced Programmable Logic Controllers (2-4-3)
Advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting ladder logic, and interfacing to equipment. Prerequisites: ELMT 1301.

ELMT 2380 COOP: Electromechanical/
Engineering Technology (1-19-6)
ELMT 2680 COOP: Electro Mechanical/
Engineering Technology (1-39-6)
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisites: INMT 1347 & DFTG 1329.

ELPT 2231 AC/DC Drives (1-4-2)
Installation and maintenance of alternating current (AC) and direct current (DC) variable speed drives with emphasis on application, operating characteristics, and troubleshooting techniques. Prerequisites: INTC 1357.

ENGL 1301 (see English/Communications)

FCEL 1305 Intro-Fuel Cell & Alternative/Renewable Energy (2-4-3)
Types and applications of alternative/renewable energy sources. Includes photovoltaic, wind generation, solar, geothermal, and fuel cell types. Emphasizes fuel cell applications and processes, reformation of fossil fuels, heat transfer, chemical reaction, power conditioning, combined heat and power, and distributed generation systems. Prerequisites: CETT 1303.

HRPO 1311 (see Behavioral/Social Sciences)

IEIR 1302 Direct Current (2-4-3)
Fundamentals of direct current including Ohm's Law. Emphasis on methods of analyzing series, parallel, and combination circuits including measurement devices.

IEIR 1304 Alternating Current Circuits for Industrial Applications (2-4-3)
Fundamentals of alternating current including series and parallel circuits, phasors, and capacitive and inductive networks. Discussion of circuit analysis and measurement. Prerequisites: IEIR 1302.

INMT 1305 Intro to Industrial Maintenance (2-3-3)
Basic mechanical skills and repair techniques common to most fields of industrial maintenance. Topics include precision measuring instruments and general safety rules common in industry, including lock-out/tag-out.

INMT 1311 Computer Integrated Manufacturing (2-4-3)
A study of the principles and application of computer integrated manufacturing. Employs all aspects of a system including but not limited to integration of material handling, manufacturing, and computer hardware and programming.

INMT 1317 Industrial Automation (2-4-3)
A study of the applications of industrial automation systems including identification of system requirements, equipment integration, motors, controllers, and sensors. Coverage of set-up, maintenance, and testing of the automated system.

INMT 1319 Manufacturing Processes (2-4-3)
Exploration of a variety of methods used in manufacturing. Theory and application of processes including but not limited to metal forming, welding, machining, heat treating, plating, assembly procedures, and process control considerations, casting and injection molding.

INTC 1212 Intro/Instrumentation Safety Technology (1-2-2)
An overview of industries employing instrumentation technicians. A study of hazardous industrial locations and safe work practices. Introduction to ISO-9000 Process Safety Management concepts and fire prevention and fire fighting techniques.

INTC 1341 Principles of Automatic Control (1-6-3)
A study of the theory of control room operations, automatic control systems and design, closed loop systems, recorders, controllers, positioners, feedback, on-off control, proportional, reset and rate responses, ratio and cascade controllers. Prerequisites: ELMT 2333.

INTC 1357 Ac/Dc Motor Controls (2-4-3)
A study of eclectic motors and motor control devices common to a modern industrial environment. A presentation of motor characteristics with emphasis on starting, speed control, and stopping systems.

INTC 1359 Temperature Controls (2-4-3)
Analysis of temperature process control loops and temperature measuring devices. Installation, testing, calibration, and application of commonly used thermal devices. Prerequisites: INTC 1356.

INTC 2336 Distributed Control & Programmable Logic(1-6-3)
An overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. Functions of digital systems in a process control environment. Prerequisites: CETT 1325 & INTC 1341.

MATH 1312, MATH 1314 (see Math/Natural Sciences)

MCHN 1338 (see Machining Technology)

PSYS 1401 (see Math/Natural Sciences)

QCTC 1303 Quality Control (2-4-3)
Information on quality control principles and applications. Designed to introduce the student to the quality control profession. Prerequisites: DMTH 0200 or TECM 1303.

RBTC 1305 Robotic Fundamentals (2-4-3)
An introduction to flexible automation. Topics include installation, repair, maintenance, and development of flexible robotic manufacturing systems.

RBTC 1341 Vision Systems (2-4-3)
An overview of machine vision systems, including terminology and components. Topics include optics, sensors, lighting, image analysis, and user interfaces.

RBTC 1343 Robotics (2-4-3)
A study of the principles and application of robots including installation, programming, and maintenance of robots and robotic cell.

RBTC 1347 Electro-Mechanical Devices(2-4-3)
A study of basic electro-mechanical devices found in robotic systems, including transformers, switches, and solid state relays.

RBTC 1355 Sensors (2-4-3)
A study of the basic principles of industrial sensors for automated systems. Emphasis on the operation and application of position, rate, proximity, opto-electronics, ranging, and pressure switches. Prerequisites: CETT 1303 & CETT 1305.

RBTC 2345 Robot Application Setup & Testing(2-4-3)
A capstone course that provides the student with laboratory experience in the installation, set-up, and testing of robotic cells. Topics include maintenance.

RBTC 2380 COOP: Robotics Tech/Technician(1-19-3)
RBTC 2680 COOP: Robotics Tech/Technician(1-39-6)
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

Medical Assistant

BIOL (see Math/Natural Sciences)

CHEM 1411 (see Math/Natural Sciences)

ENGL 1301 (see English/Communications)

HITT 1211 (see Medical Information Specialist/Transcriptionist)

HITT 1301 (see Health Information Technology)

HITT 1305 (see Medical Information Specialist/Transcriptionist)

HRPO 1311 (see Behavioral/Social Sciences)

MATH 1314, MATH 1332 (see Math/Natural Sciences)

MDCA 1205 Medical Law & Ethics (2-0-2)
Instruction in principles, procedures, and regulations involving legal and ethical relationships among physicians, patients, and medical assistants, includes current ethical issues as they relate to the practice of medicine and fiduciary responsibilities.

MDCA 1343 (see Medical Information Specialist/Transcriptionist)

MDCA 1344 Electrocardiography (2-2-3)
Principles and procedures of 12 lead electro-cardiography (EKG), arrhythmia interpretation, and care and maintenance of equipment and exam area. Includes stress testing and Holter monitoring.

MDCA 1348 Pharmacology & Administration of Medications (2-4-3)
Instruction in concepts and application of pharmacological principles. Focuses on drug classifications, principles and procedures of medication administration, mathematical systems and conversions, calculation of drug problems, and medico-legal responsibilities of the medical assistant.

MDCA 1352 Medical Assistant Lab Procedures (2-4-3)
Emphasis on common laboratory procedures performed in the physician's office or clinic setting. Procedures depicted in the Current Clinical Laboratory Improvement Act (CLIA). Includes blood collection, specimen handling, basic urinalysis, identification of normal ranges, and electrocardiography.

MDCA 1356 Phlebotomy-Medical Assistants (2-3-3)
Instruction in principles and procedures of phlebotomy; hematology; collection of varied sterile/non-sterile specimens; blood typing; identification, use and care of lab equipment; and quality control. Emphasis on principles/procedures of phlebotomy and handling of specimens.

MDCA 1402 (see Medical Information Specialist/Transcriptionist)

MDCA 1417 Proceed in a Clinical Setting (2-8-4)
Emphasis on patient-centered assessment examination, intervention, and treatment as directed by physician. Includes vital signs, collection and documentation of patient information, asepsis, minor surgical procedures, and other treatments as appropriate for the medical office.

MDCA 1460 Clinical - Medical/Clinical Assistant (0-16-4)
A method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision evaluation and placement is the responsibilities of the college faculty. Clinical experiences are unpaid external learning experiences.

MDCA 2266 Practicum - Medical/Clinical Assistant (0-14-2)
An intermediate or advanced type of health professions work-based instruction that helps students gain practical experience in the discipline, enhances skills, and integrates knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum may be a paid or unpaid learning experience.

MRMT 1307 (see Medical Information Specialist/Transcriptionist)

PLAB 1323 Phlebotomy (2-3-3)
Skill development in the performance of a variety of blood collection methods using proper techniques and universal precautions. Includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, proper patient identification, labeling of specimens and quality assurance, specimen handling, processing, and accessioning. Topics include professionalism, ethics, and medical terminology.

PSYC 2301 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

Medical Information Specialist/Transcriptionist

BIOL 2401, BIOL 2402 (see Math/Natural Sciences)

HITT 1166 Practicum-Health Information /Medical Records (0-8-1)
Practical, general workplace training supported by and individualized learning plan developed by the employer, college, and student.

HITT 1211 Computers in Health Care (1-4-2)
Introduction to the concepts of computer technology related to health care and tools and techniques for collecting, storing, and retrieving health care data.

HITT 1301 (see Health Information Technology)

HITT 1305 Medical Terminology (2-3-3)
Study of word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialties, and diagnostic procedures.

HITT 1342 (see Health Information Technology)

HRPO 1311 (see Behavioral/Social Sciences)

MDCA 1343 Medical Insurance (2-4-3)
Emphasizes accurate ICD-9 and CPT coding of office procedures for payment/reimbursement by patient or third party. Additional topics may include managed care or medical economics.

MDCA 1402 Human Disease/Pathophysiology (3-3-4)
A study of anatomy and physiology with emphasis on human pathophysiology, including etiology, prognosis, medical treatment, signs and symptoms of common diseases of all body systems.

MRMT 1307 Medical Transcription I (2-4-3)
Fundamentals of medical transcription with hands-on experience in transcribing physician dictation including basic reports such as history and physicals, discharge summaries, consultations, operative reports, and other medical reports. Utilizes transcribing and information processing equipment compatible with industry standards. Designed to develop speed and accuracy.

MRMT 2333 Medical Transcription II (2-4-3)
Production of advanced reports of physician dictation with increasing speed and accuracy including history and physicals, consultations, discharge summaries, operative reports, and other medical reports.

POFT 1227 (see Business/Office Technology)

SPCR 1301 (see Related Instruction)

Nurse Assistant

HITT 1305 (see Medical Information Specialist/Transcriptionist)

HRPO 1311 (see Behavioral/Social Sciences)

NUPC 1320 Patient Care Technician (2-3-3)
A course designed to provide the student with the necessary training, skills, and knowledge needed to gain employment as a Patient Care Technician in a hospital setting. Prerequisites: NURA 1301 & NURA 1307.

NURA 1301 NA Health Care Organization I (2-4-3)
Preparation for entry-level nursing assistants to achieve a level of knowledge, skills, and abilities essential to provide basic care to residents of long-term care facilities. Topics include resident's rights, communication, safety, observation, reporting, and assisting residents in maintaining basic comfort and safety. Emphasis on effective interaction with members of the health care team.

NURA 1360 Clinical - Nursing Assistant Aide (0-17-3)
A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisites: NURA 1301 & NURA 1307.

POFT 1301 (see Related Instruction)

TECM 1301 (see Related Instruction)

Related Instruction

ACNT 1325 Principles of Accounting I (2-4-3)
A study of accounting concepts and their application in transaction analysis and financial statement preparation and asset and equity accounting in proprietorships and corporations. Emphasis on accounting cycle for service and merchandising enterprises.

BMGT 1345 Communication Skills for Managers (2-4-3)
Comprehensive study of advanced communication skills for managers in business and industry, including advanced techniques in reading, writing, listening, and speaking. Emphasis on clear, concise written and spoken communication in terms of business letters, memos, and reports, as well as oral presentations; techniques for time management; prioritizing reading materials, and comprehending the main ideas and salient details of technical materials, including journals and reports, and other work-related materials.

POFT 1321 Business Math (2-2-3)
Instruction in the fundamentals of business mathematics including analytical and problem-solving skills for critical thinking in business applications.

PSYT 1303 Dynamics of Human Relations (2-2-3)
Discussion of the dynamics necessary for developing and maintaining positive/productive interpersonal and work relationships.

SPCR 1301 Communications for the Trades (2-2-3)
A study of communication skills needed for the industrial trades.

TECM 1301 Industrial Mathematics (2-2-3)
Fundamentals of math applicable to industrial trades including fraction and decimal manipulation, measurement, scientific notation, percentage, and problem solving techniques for equations and ratio/proportion applications. Also includes instruction in the use of the scientific calculator.

TECM 1303 Technical Mathematics (3-0-3)
A review of basic mathematics including whole numbers, fractions, mixed numbers, decimals, percents, ratios, and proportions. Converting to different units of measure (standard and/or metric) and other topics as required by specific businesses and industries will be covered.

Spanish

SPAN 1311 Beginning Spanish I (3-0-3)
Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. (Students may take either SPAN 1311/1312 or SPAN 1411/1412 for credit but may not take both sequences for credit).

SPAN 1312 Beginning Spanish II (3-0-3)
Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. (Students may take either SPAN 1311/1312 or SPAN 1411/1412 for credit but may not take both sequences for credit). Prerequisite: SPAN 1311.

SPAN 1411 Beginning Spanish I (for non-native speakers) (3-2-4)
Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. (Students may take either SPAN 1311/1312 or SPAN 1411/1412 for credit but may not take both sequences for credit). Prerequisite: Admission to course determined by instructor assessment.

SPAN 1412 Beginning Spanish II (for non-native speakers) (3-2-4)
Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. (Students may take either SPAN 1311/1312 or SPAN 1411/1412 for credit but may not take both sequences for credit). Prerequisite: SPAN 1411.

SPAN 2311 Intermediate Spanish I (3-0-3)
Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. Prerequisite: SPAN 1312 or SPAN 1412 or equivalent.

SPAN 2323 Introduction to Latin American Literature (3-0-3)
Representative readings of the culture. Prerequisite: SPAN 2311 or SPAN 1312 with permission of the instructor.

SPAN 2324 Spanish Culture (3-0-3)
Representative readings of the culture. Prerequisite: SPAN 2311 or SPAN 1312 with permission of the instructor.

Speech Electives

SPCH 1311 Introduction to Speech Communication (3-0-3)
Theories and practice of communication in interpersonal, small group, and public speech.

SPCH 1315 Public Speaking (3-0-3)
Research, composition, organization, delivery, and analysis of speeches for various purposes and occasions.

SPCH 1318 Interpersonal Communication (3-0-3)
Theories and exercises in verbal and nonverbal communication with focus on interpersonal relationships.

SPCH 1321 Business & Professional Communication (3-0-3)
The application of theories and practice of speech communication as applied to business and professional situations.

SPCH 2333 Discussion & Small Group Communication (3-0-3)
Discussion and small group theories and techniques as they relate to group process and interaction.

Surgical Technology

BIOL (see Math/Natural Sciences)

ENGL 1301 (see English/Communications)

HITT 1305 (see Medical Information Specialist/Transcriptionist)

HPRS 2300 (see Allied Health Related Skills)

HRPO 1311 (see Behavioral/Social Sciences)

MATH 1314 (see Math/Natural Sciences)

PSYC 2301, PSYC 2314 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

SRGT 1244 Tech Sciences for the Surgical Technology (2-0-2)
In-depth coverage of specialized surgical modalities. Areas covered include endoscopy, microsurgery, therapeutic surgical energies, and other integrated science technologies. Prerequisites: SRGT 1405.

SRGT 1405 Intro to Surgical Technology (3-2-4)
Orientation to surgical technology theory, surgical pharmacology and anesthesia, and patient care concepts. Prerequisites: BIOL 2401.

SRGT 1409 Fund of Aseptic Technology (3-2-4)
In-depth coverage of aseptic technique principles and practices, infectious processes, wound healing and creation and maintenance of the sterile field. Prerequisites: BIOL 2401.

SRGT 1441 Surgical Procedures I (3-3-4)
Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN genitourinary, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisites: SRGT 1409.

SRGT 1442 Surgical Procedure II (3-3-4)
Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the thoracic, peripheral vascular, plastic/reconstructive, EENT, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisites: SRGT 1441.

SRGT 1460 Clinical I (0-16-4)
A method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision evaluation and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisites: BIOL 2401.

SRGT 1461 Clinical Surgical Tech (0-24-4)
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: SRGT 1460.

SRGT 2462 Clinical Surgical Tech (0-24-4)
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: SRGT 1461.

Telecommunications Technology

CETT 1303 (see Mechatronics Technology)

CETT 1305 (see Mechatronics Technology)

CETT 1325 (see Mechatronics Technology)

CSIR 1303 Telecommunications Systems Installer (2-4-3)
This course reviews fundamentals of telecommunications media, including terminology, rules and regulations, safety procedures, industry standards and protocols, installation, connectorization, maintenance, and troubleshooting. General principles of customer service within a technical environment are also studied. The competencies acquired are summarized in a comprehensive project covering network, telephone and coaxial wiring, fiber optics cables, satellite television systems, structural wiring, and "smart house" concepts.

CSIR 1355 Industry Certification (2-4-3)
Preparation for the certifications required by industry.

CSIR 1359 Digital Data Communication (2-4-3)
Introduction to the theory and troubleshooting skills needed in the digital data communication field. Prerequisites: CETT 1325.

CSIR 1391 Special Topics/Communications System Install & Repair (2-4-3)
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

CSIR 2301 Communication Electronic Components (2-4-3)
Introduction to the theory of vacuum tubes and solid-state devices.

CSIR 2350 Telecommunications Maintenance (2-4-3)
Focus on technical knowledge/skills related to assembly installation operation, maintenance and repair of one and two way communications equipment/systems, including television cable systems, mobile and stationary communication devices. Topics include diagnostics, use of test equipment, and principles of mechanics, electricity, and electronics as they relate to repair.

CSIR 2351 Fiber Optic Communication System Installation & Repair (2-4-3)
Focus on installation and repair of fiber optic communication systems including networks and peripherals. Topics include fiber optic technology; state-of-the-art networking systems installation, repair of fiber optic systems; testing equipment.

EECT 1300 Technical Customer Service (2-2-3)
General principles of customer service within a technical environment. Topics include internal/external customer relationships, time-management, best practices, and verbal and non-verbal communications skills.

EECT 1302 Introduction: Video Conferencing (2-4-3)
Introductions to the videoconferencing protocol Topics include imaging, display and control equipment.

EECT 1303 Intro to Telecommunications (2-4-3)
An overview of the telecommunications industry. Topics include the history of the telecommunications industry, terminology, rules and regulations and industry standards and protocols.

EECT 1307 Convergent Technologies (2-4-3)
A study of telecommunications convergence technologies including telephone, LAN, WAN, wireless, voice, video, and internet protocol.

EECT 1340 Telecomm Transmissions Media (2-4-3)
Fundamentals of telecommunications media, including installation, maintenance, and troubleshooting. Topics address media characteristics and connectorization.

EECT 1342 Telecommunication outside Plant (2-4-3)
A study of outside plant facilities with emphasis on cabling layout design, splicing, bonding, grounding and facility protection systems. Safety practices and procedures are included.

EECT 1344 Telecom Broadband Systems (2-4-3)
A survey of telecommunications broadband transmissions systems, including protocols, testing, applications and safety practices.

EECT 1380 Coop: Telecommunication (1-19-3)
EECT 1680 Coop: Telecommunication (1-39-6)
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

EECT 2330 Telecommunications Switching (2-4-3)
The operation of telecommunications switching equipment and related software. Topics include installation, testing, maintenance, and trouble shooting. Prerequisites: EECT 1303.

EECT 2337 Wireless Telephony Systems (2-4-3)
Principles of wireless/cellular telephony systems to include call processing, hand-off, site analysis, antenna radiation patterns, commonly used test/maintenance equipment and access protocol.

EECT 2435 Telecommunications (2-4-4)
A study of modern telecommunications systems incorporating microwave, satellite, optical, and wire/cable-based communications systems. Instruction in installation, testing, and maintenance of communications systems components.

EECT 2439 Communication Circuits (3-3-4)
A study of communications systems with emphasis on amplitude modulation, and digital pulse modulation. Discussion of several types of modulators, demodulators, receivers, transmitters, and transceivers. Prerequisites: CETT 1357.

EECT 2680 COOP- Electrical & Communications Engineering (1-39-6)
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisites: CSIR 1359, EECT 1342, & EECT 1302.

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

IEIR 1302, IEIR 1304 (see Mechatronics Technology)

MATH 1314 (see Math/Natural Sciences)

POFT 1301 (see Related Instruction)

SPCH (see Speech Electives)

TECM 1303 (see Related Instruction)

Transferable Academic Courses

ACCT 2401 Principles of Accounting I - Financial (3-3-4)
Accounting concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements; and asset and equity accounting in proprietorships, partnerships, and corporations. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing.

ACCT 2402 Principles of Accounting II – Managerial (3-3-4)
Accounting concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements; and asset and equity accounting in proprietorships, partnerships, and corporations. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing. Prerequisite: ACCT 2401.

BUSI 1301 Business Principles (3-0-3)
Introduction to the role of business in modern society. Includes overview of business operations, analysis of the specialized fields within the business organization, and development of a business vocabulary.

BUSI 2301 Business Law (3-0-3)
Principles of law which form the legal framework for business activity.

COSC 1301 Microcomputer Applications (2-2-3)
Overview of computer information systems. Introduces computer hardware, software, procedures, systems, and human resources and explores their integration and application in business and other segments in society. The fundamentals of computer problem solving and programming in a higher level programming language may be discussed and applied.

ENGR 2301 Engineering Mechanics I – Statics (3-0-3)
Calculus-based study of composition and resolution of forces, equilibrium of force systems, friction, centroids, and moments of inertia. Prerequisite: MATH 2413.

ENGR 2302 Engineering Mechanics II - Dynamics (3-0-3)
Calculus-based study of dynamics of rigid bodies, force-mass-acceleration, work-energy, and impulse-momentum computation. Prerequisite: ENGR 2302.

ENVR 1401 Environmental Science I (3-3-4)
General interest course requiring a minimum of previous science background and relating scientific knowledge to problems involving energy and the environment. May or may not include a laboratory.

Vocational Nursing

BIOL 2401, BIOL 2402 (see Math/Natural Sciences)

ENGL 1301 (see English/Communications)

HITT 1305 (see Medical Information Specialist/Transcriptionist)

HPRS 1204 (see Allied Health Related Skills)

HRPO 1311 (see Behavioral/Social Sciences)

PSYC 2314 (see Behavioral/Social Sciences)

RNSG 1301 Pharmacology (3-1-3)
Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of each drug classification. Topics include the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework. This course lends itself to either a blocked or integrated approach.

VNSG 1119 Professional Development (1-0-1)
Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education.

VNSG 1261 Introductory Clinical-Practical Nurse (0-12-2)
A health-related work-base learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

VNSG 1304 Foundations of Nursing (3-0-3)
Introduction to the nursing profession including history, standards of practice, legal and ethical issues, and role of the vocational nurse. Topics include mental health, therapeutic communication, cultural and spiritual diversity, nursing process, and holistic awareness.

VNSG 1306 Maternal Newborn Nursing (3-1-3)
A study of the biological, psychological, and sociological concepts applicable to basic needs of the family including childbearing and neonatal care. Topics include physiological changes related to pregnancy, fetal development, and nursing care of the family during labor and delivery and the puerperium.

VNSG 1307 Pediatric Nursing (3-0-3)
Study of the care of pediatric client and family during health and disease. Emphasis on growth and developmental needs.

VNSG 1329 Medical-Surgical Nursing I (3-1-3)
Application of the nursing process to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings.

VNSG 1332 Medical-Surgical Nursing II (3-1-3)
Continuatin of Medical-Surgical Nursing I with application of the nursing process to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings.

VNSG 1402 Applied Nursing Skills I (3-3-4)
Introduction to and application of primary nursing skills. Emphasis on utilization of the nursing process and related scientific principles.

VNSG 1462 Intermediate Clinical–Practical Nurse (0-20-4)
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

VNSG 2413 Applied Nursing Skills II (3-1-3)
Application of nursing skills tomeet more complex client needs utilizing the nursing process and related scientific principles.

VNSG 2463 Advanced Clinical-Practical Nurse (0-20-4)
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

Welding Technology

DFTG 1325 (see Computer Drafting & Design Technology)

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

MATH 1322 (see Math/Natural Sciences)

NDTE 2311 Prep for Weld Inspection Certification (2-2-3)
Preparation for students for certification as welding inspectors, including accepted testing requirements and procedures, measurement systems, duties and responsibilities of inspectors, destructive and nondestructive testing, quality assurance/quality control, welding codes and blueprints, procedures, and case studies. An overview of welding tools and equipment, metallurgy, chemistry, and joint design.

POFT 1301 (see Related Instruction)

SPCH (see Speech Electives)

WLDG 1312 Intro to Flux Cored Welding (1-7-3)
An overview of terminology, safety procedures, and equipment set-up. Practice in performing T-joints and butt joints using self-shielding and dual- shield electrodes.

WLDG 1317 Introduction to Layout & Fabrication (1-8-3)
A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.

WLDG 1323 Weld Safety Tools/Equipment (3-0-3)
An introduction to welding careers and safety practice, including welding safety; OSHA and the Hazardous Communication Act; Material Safety Data Sheets (MSDA); basic mathematics; measuring systems; shop operations; use and care of precision measuring tools; and the use and care of hand and power tools. Instruction on various types of welding equipment gases, fluxes, rods, electrodes, symbols, and blueprints.

WLDG 1421 Intro to Welding Fund (2-8-4)
An introduction to the fundamentals of equipment used in oxy-fuel and arc welding, including welding and cutting safety, basic oxy-fuel welding and cutting, basic arc welding processes and basic metallurgy.

WLDG 1430 Intro to Gas Metal Arc (GMAW) (2-8-4)
A study of the principles of gas metal arc welding setup and use of GMAW equipment, and safe use of tools/equipment. Instruction in various joint designs.

WLDG 1434 Intro to Gas/Tung/Arc (GTAW) (2-8-4)
An introduction to the principles of gas tungsten arc welding (GTAW), setup/use of STAW equipment, and safe use of tools and equipment. Welding instruction in various positions on joint designs.

WLDG 1435 Intro to Pipe Welding (1-9-4)
An introduction to welding of pipe process (SMAW), including electode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes.

WLDG 1457 Intermediate SMAW (2-6-4)
A study of the production of various fillets and groove welds. Preparation of specimens for testing in all test positions.

WLDG 2213 Intermediate Welding Multi (1-4-2)
Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW), or any other approved welding process.

WLDG 2214 Intermediate Welding Using Multi (1-3-2)
Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW), or any other approved welding process.

WLDG 2355 Advanced Welding Metallurgy (2-2-3)
A study of metallurgy as it applies to welding, including structure, identification, and testing of metals; temperature changes and their effect on welded metals; properties of metals, and factors affecting weldability of ferrous and nonferrous metals.

WLDG 2413 Intermediate Welding Using Multiple Processes (2-6-4)
Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW), or any other approved welding process.

WLDG 2435 Advanced Layout & Fabrication (2-6-4)
A continuation of the Intermediate Layout and Fabrication course which covers production and fabrication of layout tools and processes. Emphasis on application of fabrication and layout skills.

WLDG 2443 Advanced Shield Metal (SMAW) (2-6-4)
Advanced topics based on accepted welding codes. Training provided with various electrodes in shielded metal arc welding processes with open V-groove joints in all positions.

WLDG 2453 Advanced Pipe Welding (2-6-4)
Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode election, equipment setup and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes.

Notes:_____

Course Index

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TSTC
Texas State Technical College™

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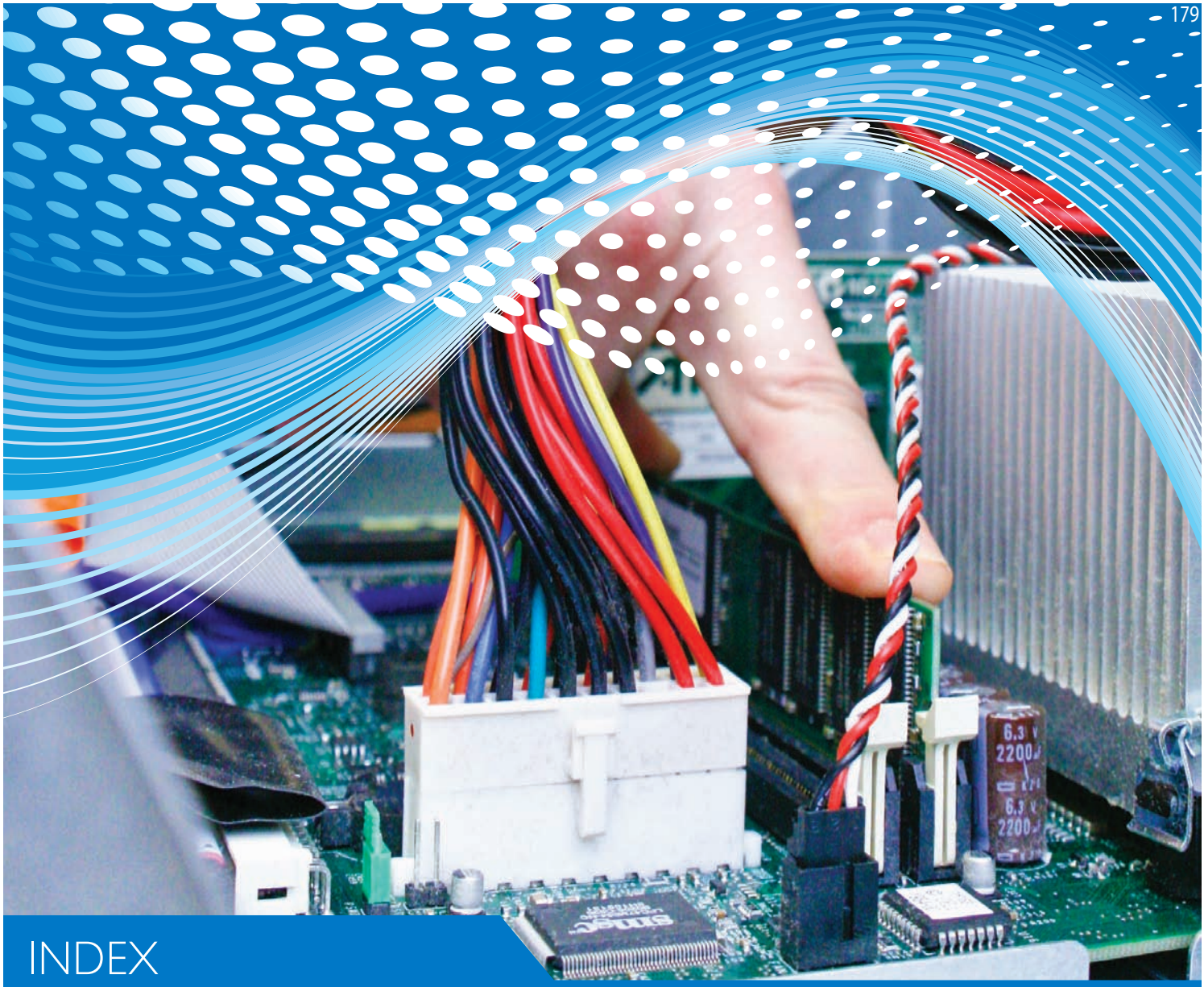
Notes:_____



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Texas State Technical College™

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Notes:

Helpful Phone Numbers

Business Office 956.364.4410

College Information 956.364.4117

College Housing 956.364.4235

College Police 24/7 ..... 956.364.4911

Continuing Education 956.364.4615

Marketing 956.364.4111

Placement 956.364.4106

President's Office 956.364.4021

Student Life 956.364.4304

Student Services 956.364.4301

Student Success 956.364.4109

TSTC Operator ..... 956.364.4000 or 1.800.852.8784

Contact Information

Office of Admissions & Records 956.364.4320
Monday – Thursday ..... 8 AM – 6 PM
Friday ..... 8 AM – 5 PM
Saturday* ..... 8 AM – 12 PM

Bookstore 956.364.4441**
Monday – Thursday ..... 7:45 AM – 5:30 PM
Friday ..... 7:45 AM – 5 PM

Cafeteria 956.364.4450
Serving Hours
Monday – Friday ..... (Breakfast) 7 AM – 10:30 AM
(Lunch) 11 AM – 2 PM
Hours of Operation
Monday – Friday ..... 6 AM – 2 PM

Cashier/Student Receivables ..... 956.364.4413 or 956.364.4412
Monday – Thursday ..... 8 AM – 6 PM
Friday ..... 8 AM – 5 PM
Saturday* ..... 8 AM – 12 PM

Counseling/Advisement Center 956.364.4310
Monday – Thursday ..... 8 AM – 6 PM
Friday ..... 8 AM – 5 PM
Saturday* ..... 8 AM - 12PM

Financial Aid 956.364.4330
Monday – Friday ..... 8 AM– 5 PM
Monday – Thursday (counter only) ..... 8 AM – 6 PM
Saturday* (counter only) ..... 8 AM – 12 PM

Learning Resource Center 956.364.4609
Monday – Thursday ..... 7:30 AM – 8 PM
Friday ..... 7:30 AM – 5 PM
Saturday* ..... 10 AM – 4 PM
Sunday ..... 1 PM – 4 PM
Semester Breaks (Monday-Friday) ..... 8 AM - 5 PM

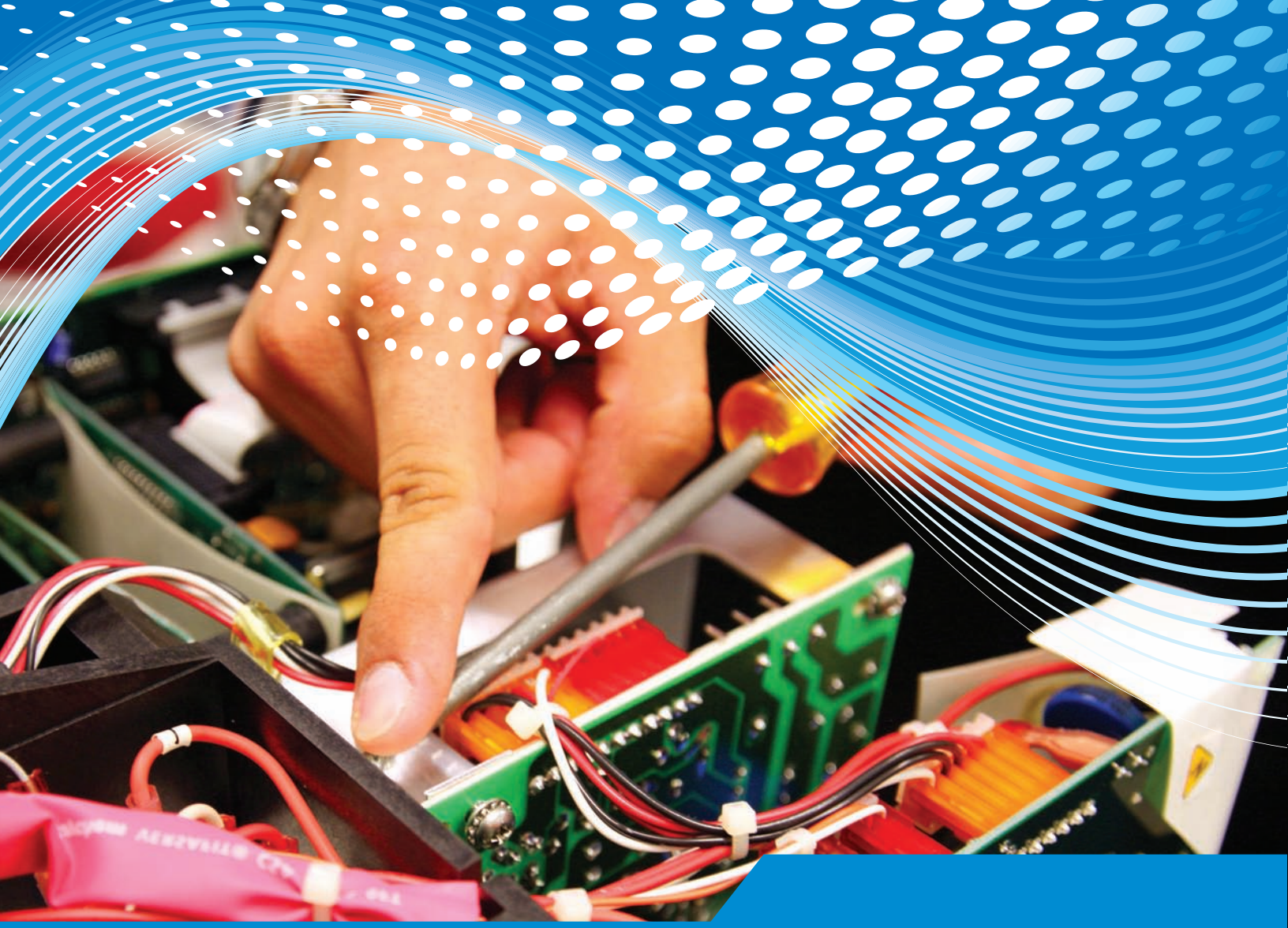
Student Health Services 956.364.4305
Day Nurse (Student Center)
Monday – Friday ..... 8 AM – 1 PM & 2 PM – 5 PM
Evening Nurse (Wellness & Sports Center)
Monday – Thursday ..... 5 PM – 9 PM

Support Services 956.364.4520
Monday – Friday ..... 8 AM – 12 PM & 1 PM – 5 PM

Testing Center 956.364.4314
Monday, Tuesday, Friday ..... 8 AM - 5 PM
Students must begin testing by 1:30PM
Wednesday ..... 8 AM - 5 PM
GED Testing Only
Thursdays ..... 8 AM - 9 PM
Students must begin testing by 6:00PM
Saturday ..... 8 AM - 12 PM
Students must begin testing by 9:00AM

Wellness & Sports Center 956.364.4341
Monday – Thursday ..... 8 AM – 9 PM
Friday - Saturday* ..... 10 AM – 2 PM

* Saturday holidays closed
** Summer semester hours may vary.



Texas State Technical Colleges
www.tstc.edu

TSTC Harlingen
1.800.852.8784
956.364.4000

TSTC Marshall
1.888.382.8782
903.935.1010

TSTC Waco
1.800.792.8784
254.867.3371

TSTC West Texas State Technical College
Abilene 325.672.7091
Breckenridge 254.559.7700
Brownwood 325.643.5987
Sweetwater 325.235.7300

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