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

TSTC Harlingen’s open admissions policy makes higher education and training programs and courses available to all and results in diverse curriculum offerings. The college emphasizes study through multiple instructional delivery systems and actively seeks involvement of high school and non-traditional students in its programs. Appropriate assessment and placement into educational programs and innovative approaches to education are essential in meeting the needs of students and industry.

TSTC Harlingen recognizes that it must prepare students for the 21st century by providing for the holistic personal and professional development of our students through student services, organizations, and other activities. By utilizing a comprehensive master plan approach, TSTC Harlingen assures the vitality of its programs for today’s industrial and academic demands and tomorrow’s challenges.

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.

Innovation

Creating and implementing new ideas and methods

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

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

Degrees and Certificates ........................................... inside cover
Institutional Purpose and Goals ........................................... 2
President's Welcome .......................................................... 4
The TSTC System .................................................................. 5
Governance and Accreditation ........................................... 6
Map ................................................................................... 7
Admissions Information and Procedures .......................... 8
Tuition and Fees ............................................................... 11
Installment Payment Plan ................................................ 14
Meal Plans ......................................................................... 14
Housing ............................................................................. 14
Refunds ............................................................................. 15
Financial Assistance ....................................................... 16
Scholarships ........................................................................ 20
Scholastic Information ..................................................... 24
Assessment and Testing Requirements ............................ 26
Advising ............................................................................ 27
Degree and Program Planning ........................................... 28
Degree and Certificate Plans ............................................ 28
Graduation and Commencement ...................................... 29
Curriculum .......................................................................... 29
Developmental Studies .................................................... 29
General Education Courses ............................................. 30
General Education Academic Core .................................. 33
ADN Nursing Academic Courses .................................... 34
Credit Award for Assessments in Training ........................ 35
Individualized Instruction ................................................ 39
Dual Credit Courses .......................................................... 39
Distance Learning .............................................................. 39
Registration .......................................................................... 39
Schedule Changes ............................................................. 39
Drops and Withdrawals ....................................................... 40
Student Absence and Religious Holy Days ....................... 40
Articulation Agreements .................................................... 40
Transfer of Credit ............................................................. 40
Continuing Education and Corporate Workforce Training... 41
Student Housing ............................................................... 42
Counseling and Testing Services ...................................... 43
Student Activities ............................................................. 43
Student Identification Cards .......................................... 44
Learning Resource Center ................................................. 44
College Bookstore ........................................................... 44
Food Service ....................................................................... 44
Student Health ................................................................. 44
Student Health Insurance ............................................... 45
Support Services Office ..................................................... 45
Child Care Services .......................................................... 46
Campus Security ............................................................... 46
Career Services ................................................................. 46
Student Conduct and Discipline ...................................... 46
General Information ........................................................ 47
Compact with Texans ....................................................... 48
Associate of Applied Science Degree Programs .............. 52
Student Success ............................................................... 52, 88
Associate of Science Degree Programs ............................ 80
Certificate of Completion Programs ............................... 88
Field of Study ................................................................. 116
Marketable Skills Awards ............................................... 119
Course Descriptions ....................................................... 136
Course Index ..................................................................... 173
Personnel Directory ........................................................ 178
Index ................................................................................ 190
Phone Numbers and Contacts ......................................back inside cover
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.”

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 Mike Reeser, MBA

The TSTC System Board of Regents include:
- Michael F. Northcutt, Chair of the Board;
- Ellis M. Skinner II, Vice Chair;
- Linda McKenna, Executive Committee Place 1;
- Gene Seaman, Executive Committee Place 2;
- Penny Forrest, Member;
- Joe M. Gurecky, Member;
- John Hatchel, Member;
- Joe K. Hearne, Member;
- J.V. Martin, Member.

Texas State Technical College Harlingen is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award Associate of Science and Associate of Applied 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 the accreditation of Texas State Technical College Harlingen. Students may review accreditation records in the TSTC Harlingen 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:_____________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
Admissions Information

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 who serves as a personal contact to help in the transition to college and the admissions process. Contact the College Information Office to schedule an appointment with an admissions advisor and a 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.
- Submit Proof of Bacterial Meningitis Vaccination: (For students under the age of 30). All new students, transfer students and students who have taken a leave of absence from school in either a fall or spring semester must have received the Bacterial Meningitis Vaccination during the five-year period immediately preceding and at least 10 days prior to the first day of the semester enrolled or re-enrolled.

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 Proof of Bacterial Meningitis Vaccination: (For students under the age of 30). All new students, transfer students and students who have taken a leave of absence from school in either a fall or spring semester must have received the Bacterial Meningitis Vaccination during the five-year period immediately preceding and at least 10 days prior to the first day of the semester enrolled or re-enrolled.
5. 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.
6. Attend Mandatory New Student Orientation. Pertains to TSTC Harlingen only. New Student Orientation is mandatory for all new students and is required prior to registration for classes.

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, the type of course and/or program, and whether the courses are for college credit or for continuing education or workforce training. Tuition rates are subject to change on a semester by semester basis as approved by the Board of Regents.

State Tuition Rates Effective Fall 2011

- Resident of Texas: $82.00 per semester credit hour for academic courses
- Resident of Texas: $97.00 per semester credit hour for technical courses
- Resident of Texas: $254.00 per semester credit hour for technical courses in premium programs
- Non-resident of Texas: $254.00 per semester credit hour for all courses

Designated Tuition Rate Effective Fall 2011

- $46 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 New Student 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 Paula Arredondo, Registrar at 956.364.4322.
### Student Payments

Student charges for Tuition and Fees are due and payable on or before the first class day of the term or the first day for courses in which students are enrolled. All tuition and fees may be paid by cash, check or credit card at the cashier’s office or online through the students’ WebAdvisor account.

The Installment Payment Plan or Student Financial Aid constitute additional forms of payment; however all payment arrangements must be formally completed before the first class day to avoid de-registration from classes.

### Past-Due Accounts

A student with a past-due unpaid balance is considered delinquent. Delinquent students may not register for subsequent terms, add classes in the current term, or receive an official transcript. Delinquent accounts may be turned over to a collection agency, potentially affecting students’ personal credit ratings. Students with delinquent accounts are responsible for any charges associated with the collection of delinquent accounts.

### 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 Student Receivables for more information.

<table>
<thead>
<tr>
<th>TYPE OF FEE</th>
<th>AMOUNT OF FEE (2011-13)</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Resident E-Learning Fee</td>
<td>$300.00 per semester credit hour</td>
<td>For out-of-state residents enrolled in distance learning credit courses. Courses are exempt from all other state and designated tuition.</td>
</tr>
<tr>
<td>Testing Center Exam Fee</td>
<td>Cost of exam</td>
<td>Applies to tests taken at TSTC Testing Centers and to TSTC Challenge Exams; Includes fee for test administration</td>
</tr>
<tr>
<td>Program-specific Fees and Costs</td>
<td>Varies</td>
<td>For some credit programs</td>
</tr>
<tr>
<td>Continuing Education/Workforce Training Fees and Costs</td>
<td>Varies</td>
<td>For some continuing education/workforce training courses</td>
</tr>
<tr>
<td>Out-of-State Resident and Worker</td>
<td>At least twice the continuing education tuition rate for the associated course-section</td>
<td>For non-residents who are brought from outside the state by their employers to attend the course</td>
</tr>
<tr>
<td>Continuing Education Tuition</td>
<td>$25 per evaluation</td>
<td>Applies to evaluation of CEUs and/or experiential learning for the purpose of awarding TSTC semester credit</td>
</tr>
<tr>
<td>Credit Award Evaluation Fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Certification of Specialty</td>
<td>Cost of exam</td>
<td>For students in allied health programs</td>
</tr>
<tr>
<td>Allied Health Malpractice Insurance</td>
<td>Cost of insurance</td>
<td></td>
</tr>
<tr>
<td>Student Medical Health and Accident Insurance</td>
<td>Cost of insurance</td>
<td>Optional, unless required by program</td>
</tr>
<tr>
<td>Library Fines</td>
<td>Varies by College</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 cents per book or magazine per day</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$1 per video or DVD per day</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lost Item – cost of replacement plus a 10% processing fee</td>
<td></td>
</tr>
<tr>
<td>Mailbox Fee</td>
<td>$5 per semester</td>
<td>For TSTC West Texas, Sweetwater, students living off campus</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Description</th>
<th>Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>For dependents of veterans that are considered unemployable by V.A. Hazlewood</td>
<td>Financial Aid, Student Services Bldg., 956.364.4330</td>
</tr>
<tr>
<td>Dependents whom received unused transfer of Hazlewood from Veteran Legacy</td>
<td>Financial Aid, Student Services Bldg., 956.364.4330</td>
</tr>
<tr>
<td>Texas veterans or dependents of Texas veterans who were killed in action or</td>
<td>Financial Aid, Student Services Bldg., 956.364.4330</td>
</tr>
<tr>
<td>died while in service (Hazlewood)</td>
<td></td>
</tr>
<tr>
<td>Children of POWs and MIAs as certified by the U.S. Department of Defense</td>
<td>Financial Aid, Student Services Bldg., 956.364.4330</td>
</tr>
<tr>
<td>Children of disabled Firefighters or Peace Officers as certified by the Texas Higher Education Coordinating Board</td>
<td>Financial Aid, Student Services Bldg., 956.364.4330</td>
</tr>
<tr>
<td>Blind or Deaf Students as certified by the Texas Rehabilitation Commission,</td>
<td>Support Services, Tech Prep Bldg., 956.364.4520</td>
</tr>
<tr>
<td>the Texas Commission for the Blind, or the Texas Commission for the Deaf and</td>
<td></td>
</tr>
<tr>
<td>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.)</td>
<td></td>
</tr>
<tr>
<td>Students employed as Certified Educational Aides as authorized by the Texas Higher Education Coordinating Board</td>
<td>Financial Aid, Student Services Bldg., 956.364.4330</td>
</tr>
<tr>
<td>Students in foster or other residential care as certified by the Texas Department of Protective and Regulatory Services</td>
<td>Financial Aid, Student Services Bldg., 956.364.4330</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school students enrolled in class sections for dual high school and college credit may have state and designated tuition waived or reduced.</td>
<td>Dual Enrollment, College Readiness &amp; Advancement Bldg., 956.364.4321</td>
</tr>
<tr>
<td>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.</td>
<td>Financial Aid, Student Services Bldg., 956.364.4330</td>
</tr>
<tr>
<td>Senior citizens 65 years of age or older may audit courses without payment of state and designated tuition</td>
<td>Student Receivable, Student Services Bldg., 956.364.4409</td>
</tr>
<tr>
<td>Citizens 55 years of age or older may have state tuition waived upon verification of age</td>
<td>Student Receivable, Student Services Bldg., 956.364.4409</td>
</tr>
<tr>
<td>TSTC employees, their spouses and/or dependents have a reduction in state tuition and a waiver of designated tuition.</td>
<td>Human &amp; Organization Development, Industrial Technology Bldg., 956.364.4042</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Military personnel stationed in Texas and their spouses and children</td>
<td>Financial Aid, Student Services Bldg., 956.364.4330</td>
</tr>
<tr>
<td>Individuals employed at least half time as teachers or professors at Texas institutions of higher education and their spouses and children</td>
<td>Financial Aid, Student Services Bldg., 956.364.4330</td>
</tr>
<tr>
<td>Students whose families transferred to Texas as a part of the State’s plan for economic development.</td>
<td>Student Receivables, Student Services Bldg., 956.364.4409</td>
</tr>
<tr>
<td>Employer company must be certified as eligible by the Texas Higher Education Coordinating Board</td>
<td>Student Receivables, Student Services Bldg., 956.364.4409</td>
</tr>
<tr>
<td>Students who receive a competitive scholarship of at least $1,000</td>
<td>Student Receivables, Student Services Bldg., 956.364.4409</td>
</tr>
<tr>
<td>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.</td>
<td>Student Receivables, Student Services Bldg., 956.364.4409</td>
</tr>
<tr>
<td>Students from Mexico or Canada enrolled through a Texas Higher Education Coordinating Board approved Exchange Program</td>
<td>Student Receivables, Student Services Bldg., 956.364.4409</td>
</tr>
<tr>
<td>Students from Mexico who demonstrate financial need</td>
<td>Student Receivables, Student Services Bldg., 956.364.4409</td>
</tr>
<tr>
<td>Nonimmigrant aliens residing in Texas in accordance with NATO treaties and their spouses and children</td>
<td>Student Receivables, Student Services Bldg., 956.364.4409</td>
</tr>
</tbody>
</table>

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

College credit students may pay their registration charges (state tuition and designated tuition), campus housing, 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 Student Receivables at the time of registration.

The payments are due as follows:

Fifteen-Week Term:

½ prior to the beginning of the term plus the $25 installment plan fee
½ prior to the 6th class week
½ prior to the 11th class week

Twelve-Week or Longer Term:

½ prior to the beginning of the term plus the $25 installment plan fee
½ prior to the 5th class week
½ prior to the 9th class week

Less Than Twelve-Week Term:

½ prior to the beginning of the term plus the $25 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 $25 installment plan fee;
2. be responsible for making payments on or before the due dates established at the time of registration;
3. be charged a late fee of $25 for each payment made more than seven business days after the payment is due;
4. 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 Student Receivables; and
6. be responsible for payment of any remaining balance if he/she withdraws from the College.

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)

Housing

The Housing Application with a $150 deposit, the Release of Background Information Form and the non-refundable criminal background check fee of $8, and proof of bacterial meningitis vaccination ten days prior to move-in is required.

Single Students

Oak Tree Dorms
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).

Emergency Tuition Loan

College credit students who are unable to pay their state and designated tuition at the time of registration because of financial hardship may be eligible for emergency tuition loans. Funds are limited and the student must meet several qualifications. Contact the Student Receivables Department for more information.
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.

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

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, 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. Subsidized Federal Stafford loans
2. Unsubsidized Direct Stafford loans (other than PLUS loans)
3. Subsidized Direct Stafford loans
4. Federal Perkins loans
5. Direct PLUS loans
6. Federal Pell Grants for which a return of funds is required.
7. Federal Supplemental Educational Opportunity Grants (FSEOG) for which a return of funds is required.
8. Other Title IV aid
9. Other Federal, State, Private or Institutional Aid
10. 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:

- $150 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 members 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 March 29
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 (payment) 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 and installment plans.

How to Apply

These are the first steps in applying for financial assistance.

1. Complete the Free Application for Federal Student Aid (FAFSA), using the appropriate federal base-year tax forms.
2. Complete the FAFSA through the Internet at www.fafsa.ed.gov. For more information regarding this, contact FAFSA Customer Service at 1-800-433.3243 or TTY: 1-800-730-8913.
   or
   If you would like the TSTC Financial Aid Office to assist you in submitting your FAFSA electronically, please have the following available:
   (a.) You will need records of income earned in the year prior to when you will start school. You may also need records of your parent's income information if you are a dependent student.
A variety of resources are available for financial assistance at TSTC. Some of these are included in the following list. Visit the Financial Aid website for more complete information.

- **Federal Pell Grant.** This federal aid program provides financial assistance for obtaining a postsecondary education. It is intended to be the base of a student’s financial aid package. Eligibility is based on 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 TEOG. Students must apply early.
- **Texas Educational Opportunity Grant (TEOG).** These state awards pay state and designated tuition for students who are Texas residents, show financial need and do not have an Estimated Family Contribution of more than $2,000. They must be enrolled in a TSTC certificate or degree seeking program (EA and non degree seeking students are not eligible). Students must be within the first 30 credit hours for consideration. Students must apply early.
- **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 and submit a resume.
- **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.
- **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 will be required. Veterans who are eligible for assistance under any of the Department of Veteran’s Affairs programs should contact the Financial Aid Office. Veterans must also consent to a background check.
Veterans Financial Aid and Veterans Benefits

Veteran interested in using their GI Bill benefits must submit the following documents to the Financial Aid & Veteran Services Office before enrollment certification can be submitted to the VA Education Department:

- DD Form 214 (member 4)
- Official Military Transcripts and University/College transcripts (to the Admissions & Records Office)
- VA Form 22-1905 – required for Veterans using Chapter 31 (Vocational Rehabilitation & Employment Division)
- DD Form 2384 (NOBE) – required for Veterans using Chapter 1606 or REAP
- Transcript Evaluation Form
- VA Form 22-1995 – when changing major field of study or incoming transfer student

Dependents using GI Bill Chapter 35 or Chapter 33 must submit the following documents:

- DD Form 214 (member 4) – Chapter 33 exempt, if Veteran is on active duty
- Veteran’s service-connected compensation claim, decision letter. (Chapter 35)
- University/College transcripts (to the Admissions & Records Office).
- Transcript Evaluation Form
- VA Form 22-5495 - (Chapter 35) when changing degree plan or incoming transfer student.

Veterans and Dependents are encouraged to review all benefits and “Road Map to Success” at www.gibill.va.gov before applying for educational benefits.

Texas Veterans and their dependents may be eligible for benefits under the Texas Hazlewood Act. The Texas Hazlewood Act encompasses many different tuition exemptions and/or waivers for eligible Veterans and their dependents. Please visit www.collegeforalltexans.com to view all eligibility requirements.

Texas Veterans interested in using the Hazlewood Tuition Exemption must submit the proper application and all supporting documentations to the Financial Aid & Veteran Services Office.

Attendance Policy for Veterans and Dependents using GI Bill or Tuition Exemption

This attendance policy is required for institutions offering courses for veterans or other eligible persons enrolled in undergraduate/certificate degree programs approved under Title 38, United States Code, 3676.

This policy is established to set minimum standards of attendance for student(s) enrolled in undergraduate degree/certificate programs receiving veteran education benefits. Wherever the word “veteran” is used, it is intended to include all persons receiving veteran education benefits.

Veterans enrolled in undergraduate degree/certificate programs will be interrupted for unsatisfactory attendance when accumulated absences, tardies, and class cuts exceed ten (10) percent of class contact hours or 5 consecutive class days. Veterans are responsible for submitting a Veterans Attendance Form (VACATT) to the school’s VA Certifying Official on the twentieth (20th) day of each month. The form must be signed by the instructor for each class the Veteran has been certified. Failure to submit form VACATT in a timely manner will cause an interruption in benefits.

The interruption will be reported to the Veterans Administration within 30 days of the last date of attendance (use VA Form 22-1999b). Enrollment interruptions will cause an overpayment and the Veteran will be responsible for repayment to the VA Education Department.

No Show Status

Veterans reported as a No Show will have their enrollment certification interrupted and may lose their seat for one or all their courses. Overpayment due to a No Show Status is the Veteran’s responsibility and money may be owed to TSTC and/or VA Education Department.

Enrollment Certification

Only classes that earn credit toward the Veteran’s signed degree plan will be certified to VA. It is the Veteran’s responsibility to meet with their Program Advisor and register for the required classes. You may request a print out of your program evaluation from your Department Advisor or Financial Aid & Veterans Services Office.

Course Repeat

Veterans will not be certified for repeat courses that are considered completed. If an unacceptable grade has been assigned for the original course and again for the repeat course, an overpayment will be created for the original unacceptable grade.

For example: A student takes a math course two times and receives F and F grades. The first F must be reported to VA, because it is no longer calculated in the student’s Cumulative GPA. An overpayment is created for the first F received in the math course.
TSTC Veteran’s Affair – Educational Benefits Checklist

Follow these guidelines when applying for VA benefits at Texas State Technical College Harlingen

Eligibility
Students must be eligibility under one of the following programs:

1. Chapter 30 - Montgomery GI Bill
2. Chapter 31 - VA Vocational Rehabilitation
3. Chapter 32 - Post Vietnam Era VA benefits
4. Chapter 33 – Post 9/11 GI Bill
5. Chapter 35 - Survivors/Dependents education benefits
6. Chapter 1606 - Selective Reserve Montgomery GI Bill
7. Chapter 1607 (REAP) – Reserve Educational Assistance Program
8. Hazelwood Tuition Exemption

Documents Needed

Chapter 30 & Chapter 33 requires:
- Certificate of Eligibility – Apply for benefits at www.gibill.va.gov. Submit VA Form 22-1990 or contact 888-442-4551
- DD Form 214 (member 4)
- Official Military Transcripts and University/College transcripts (to the Admissions & Records Office).
- VA Form 22-1995 – when changing major field of study or incoming transfer student.
- Transcript Evaluation Form
- Parent Institution Letter – Students declaring a major field of study such as EA Core or prerequisites for a medical program that does not earn the student a degree/certificate at TSTC.

Chapter 31 requires:
- VA Form 22-1905 – required for Veterans using Chapter 31 (Vocational Rehabilitation & Employment Division)
- DD Form 214 (member 4)
- Official Military Transcripts and University/College transcripts (to the Admissions & Records Office).
- Transcript Evaluation Form
- Parent Institution Letter – Students declaring a major field of study such as EA Core or prerequisites for a medical program that does not earn the student a degree/certificate at TSTC.

Chapter 32 requires:
- DD Form 214 (member 4)
- Official Military Transcripts and University/College transcripts (to the Admissions & Records Office).
- DD Form 2384 (NOBE) – required for Veterans using Chapter 1606 or REAP
- Transcript Evaluation Form
- VA Form 22-1995 – when changing major field of study or incoming transfer student.
- Parent Institution Letter – Students declaring a major field of study such as EA Core or prerequisites for a medical program that does not earn the student a degree/certificate at TSTC.

Chapter 35 requires:
- Certificate of Eligibility – Apply for benefits at www.gibill.va.gov. Submit VA Form 22-5490
- DD Form 214 (member 4) – Chapter 33 exempt, if Veteran is on active duty
- Veteran’s service-connected compensation claim, decision letter. (Chapter 35)
- University/College transcripts (to the Admissions & Records Office).
- Transcript Evaluation Form
- VA Form 22-5495 - (Chapter 35) required when changing major field of study or incoming transfer student.
- Parent Institution Letter – Students declaring a major field of study such as EA Core or prerequisites for a medical program that does not earn the student a degree/certificate at TSTC.

Chapter 1606 and 1607 (REAP) requires:
- DD Form 214 (member 4)
- Official Military Transcripts and University/College transcripts (to the Admissions & Records Office).
- DD Form 2384 (NOBE) – required for Veterans using Chapter 1606 or REAP
- Transcript Evaluation Form
- VA Form 22-1995 – when changing major field of study or incoming transfer student.
- Parent Institution Letter – Students declaring a major field of study such as EA Core or prerequisites for a medical program that does not earn the student a degree/certificate at TSTC.

Hazelwood benefits will be available for a maximum of 150 credit hours
- DD Form 214 (member 4)
- Hazlewood application
  - HE-V – Veterans who have never used the benefit
  - HE-D – Dependents who have never used the benefit and are eligible due to the Veteran’s service-connected disability.
Note:
- Chapter 33 Veterans who are eligible for Hazlewood can use Hazlewood to "stack" on top of their 33 benefits to pay any remainder of tuition and fees ONLY not paid by Chapter 33 benefits.
- All students must apply for Hazlewood each semester they intend to use the tuition exemption.
- You MUST be enrolled in classes in order for the exemption to be posted. Please do NOT submit the application before enrolling.

Hazlewood Hours Account
To create an account for your Hazlewood benefits, or to log in to your account to obtain your hours used, go to the College for All Texans website: www.collegeforalltexans.com

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, can be available to students after they complete the TSTC scholarship application. 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.

President’s Scholarship
- Competitive
- Full Time $2,100 / $700 per semester

Majors Eligible:
- TSTC Associate Degree

Eligibility Requirements:
- Must be U.S. Citizen or eligible non-citizen
- 2012 High School Graduate
- Plan to enroll in the Fall 2012 semester
- Minimum 2.5 GPA
- Resident of Cameron, Hidalgo, Willacy or Starr County

Lozano Long Promise Opportunity Scholarship Full-time
- Need Based
- Full Time $2,000 / $666 per semester

Majors Eligible:
- All Technologies

Eligibility Requirements:
- Must be U.S. Citizen
- Enrolled at TSTC Harlingen
- Minimum 2.5 GPA
- Applicants 35 years of age and older must have a dependent child

Lozano Long Promise Opportunity Scholarship Part-time
- Need Based
- Part Time (6-11 credits) $1,000 / $333 per semester

Majors Eligible:
- All Technologies

Eligibility Requirements:
- Must be U.S. Citizen
- Enrolled at TSTC Harlingen
- Minimum 2.5 GPA
- Applicants 35 years of age and older must have a dependent child

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

Texas Top 10 Percent Scholarship
- Need Based
- $2,000 - Fall semester only

Majors Eligible:
- All Technologies
- EA

Eligibility Requirements:
- New high school graduate attending full time in the fall semester
- Must be a Texas resident
- Must have a valid processed ISIR by the summer March 1 deadline
- Rank in Top 10 percent of the graduating class
- Be from an accredited Texas high school
- Selection by criteria (no application necessary)
- Minimum 3.25 GPA
South Texas Academic Rising Scholars (STARS)

- Need Based
- Full Time $2,100 ($700 per semester), Part Time $1,050 ($350 per semester)

**Majors Eligible:**
- All Technologies
- EA

**Eligibility Requirements:**
- Must be U.S. Citizen or legal permanent resident with a permanent resident cards or passport stamped I-551
- Have a permanent address with the 22 South Texas county areas
- Have earned/completed at least 12 undergraduate credit hours in a US accredited college or university by the application deadline.
- Minimum 2.7 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

**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**

The following Standards of Academic Progress (SAP) are adopted for the purpose of determining continuing student eligibility who are receiving or applying for financial aid. Academic progress will be reviewed at the end of each term to determine that the student is making satisfactory progress. This review will include all periods of the students enrollment, even those for which the student did not receive financial aid. Students are expected to be continually aware of their grades (Online GPA Calculator). A student who is placed on SAP warning or suspension must have a declared major in a degree or eligible certificate program. Students receiving financial aid must have a declared major in a degree or eligible certificate program. Students are expected to be continually aware of their progress toward their completion. A student who fails to meet the standard of progress (SAP) will be notified by email at the email address on the student record; however, failure to receive notification will not change the SAP status.

**Qualitative Progress Measure:** Minimum Grade Point Average (GPA) achieved after each evaluation period or semester

To continue receiving financial aid, you are expected to successfully complete your classes with passing grades. You must have at least a 2.00 cumulative GPA (based on all terms of enrollment) and at least a 2.00 term GPA during each period of enrollment. All courses, including college level and developmental will be evaluated.

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

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

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

To ensure that you complete your program in a reasonable amount of time, a limit set by law has been placed on the number of hours that you can attempt. That limit is 150% of the minimum number of hours required to complete your program. For example, if your degree program requires 72 credit hours for completion, you must complete your degree or certificate program within a maximum of 108 attempted credit hours. Once you reach the 150 percent limit or we determine that you cannot complete your program within the 150% limit, you will no longer be able to receive financial aid. Several variables are considered when calculating the 150% limit and the satisfactory progression rules. These variables include, but are not limited to:

1. All attempted credit hours are counted even if you were not receiving aid to pay for them. Attempted hours are the hours in which you are enrolled in every semester.
2. Any transfer hours that are accepted from other colleges and applied toward the completion of your program are counted in the maximum time frame. If you have previously attended any college, you must submit official transcripts from all previous colleges prior to any financial aid being released.
3. If you repeat a course, both attempts will be counted in the maximum credit hours and progression calculation, even if you did not receive aid for both attempts. Financial aid will only pay for 2 attempts in a college
level course. Separate rules apply for developmental courses.

4. If you withdraw from a course(s) after the census date for that course, it is still counted as an attempted course and is included in the SAP calculation.

5. All periods of enrollment and attempted credits will be evaluated, as they apply to the current program of study, whether or not financial aid was awarded during prior enrollment periods.

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

Change of Major and Transfer Credits
Students receiving financial aid must have a declared certificate or degree eligible program. Students should register for courses approved for their designated degree plan/catalog year. Change of Program requests will be considered. Change of Program request forms must be submitted to the Financial Aid Office. A program/major change will be documented to ensure that the student’s new program is tracked for SAP. Students are responsible for notifying the Financial Aid Office and for completing the financial aid documents required, when a student changes their program/major at the Admissions and Records Office.

Transfer credits will be counted in the attempted credits and will be applied to the student’s degree plan, if applicable.

Additional Certificates and Degrees
Additional certificates and degrees will be considered or reviewed on a case by case basis. The student must be meeting SAP requirements.

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

Financial aid will NOT pay for:

- Courses taken by audit
- Courses taken outside of your degree plan requirements
- Courses attempted more than two times (except remedial/developmental courses)
- Credits exceeding the 27 maximum credits for developmental courses
- Courses previously passed unless, the course grade failed the minimum grade requirement for the program of study. Starting July 1, 2011, only two attempts will be approved, if a course was previously passed. A third attempt will not be paid by financial aid. The student’s degree plan must specify the minimum course grade required.
- Credit hours earned by placement tests
- Continuing education courses
- Courses for which you register after the official census date of the term.
- Timeframe and/or credit hours in excess of the 150% maximum program limit
- Courses taken without having a declared eligible program (enrolled as undeclared, undecided, or non-degree seeking)

Failure to Meet the Financial Aid Standards of Academic Progress

Warning Status
This status is assigned to students, who fail to make Standards of Academic progress at the end of a semester. Students in a ‘warning’ status may receive financial aid, without completing an appeal.

The first time that a student fails to meet the qualitative (minimum 2.0 semester or Cumulative G.P.A.) or quantitative requirements (minimum 67% courses completed for the term or cumulatively), the student will be placed on financial aid warning. The only exception is for exceeding maximum hours, which results in immediate suspension. Failing to meet any one of the SAP measurements during the warning period will place a student on suspension.

Suspension
There are several conditions that may place a student on suspension. The student is responsible for paying all expenses during any enrollment period(s) while on suspension. Students can be placed on suspension after a warning or probation status. Reaching the maximum time frame for the program of study can also lead a student to suspension.

A student who fails to meet any of the standards of academic progress measures during a warning period will be placed on financial aid suspension and will lose eligibility for all financial aid until all SAP measures have been met.
Students, on probation, who fail to meet the academic or Success Plan measurements will be placed on suspension.

If the Financial Aid Office mathematically determines that a student cannot complete the program of study within the 150% limit, the student will immediately be placed on financial aid suspension. Once the 150% limit has been met, the student cannot regain satisfactory progress or financial aid eligibility.

Warning – Following Suspension status
A student who was placed on financial aid suspension and who regains eligibility for financial aid by achieving a cumulative GPA of 2.0 or higher, a term GPA of 2.0 or higher for their last term of enrollment, a 67% cumulative completion rate and a 67% term completion rate for their last term of enrollment will be placed on Warning status. While on warning after a suspension status, a student must meet all satisfactory academic progress requirements in order to retain aid eligibility.

Probation- After Appeal Approval
This status is assigned to a student who fails to make SAP and who has appealed, due to mitigating circumstances, and has had eligibility for Title IV reinstated. While on probation status a student must be making progress according to an academic plan which dictates that a student must achieve a term GPA of 2.0 or higher and a term completion rate of at least 67% in order to continue to retain aid eligibility. Failure to meet the academic plan outlined will be cause for suspension.

Notification of Financial Aid Warning, Probation, or Suspension Status
Standards of Progress statuses will be updated at the end of each semester. All students, whether on financial aid or not, will be notified via email regarding warning, probation, or suspension statuses. However, failure to receive notification will not change the student’s financial aid status. Not enrolling for one or more terms does not remove the probation or suspension status.

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

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

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

2. File an appeal demonstrating mitigating circumstances and be approved and be placed on warning status.

Note: If you have reached the maximum time frame, you may not regain eligibility to receive additional financial aid.

Appeal Process
Note: Appeals submitted without documentation will be denied

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

Appeals will only be granted for conditions causing extreme hardship to the student, such as the death of a family member, illness or injury of the student, or other mitigating circumstances. The appeal must include supporting documentation regarding your mitigating circumstance, such as medical statements or death certificates, or other supporting documentation. Appeals for mitigating circumstances will be considered during a student’s enrollment at TSTC, on a case by case basis. Submitting an appeal does not guarantee approval of the appeal. The Financial Aid Office will consider recommendations from counselors or advisors when reviewing appeals. The Financial Aid Office will review the appeal and approve or deny your appeal. The decision of the financial aid office appeal process is final.

- Level 1 Appeal - Financial Aid Officer/Representative
- Level 2 Appeal - Assistant Director
- Level 3 Appeal - Director
- Level 4 Appeal - Financial Aid Advisory, Appeals and Scholarship Committee (final appeal level)

An appeal must include the following:
- Your name, TSTC ID number and email address
- A written description of the mitigating circumstances
- Documentation to support any claims
- If appealing because you have exceeded the maximum hours limit or because of a change in major, a degree plan must be submitted showing the number of hours remaining until graduation.
- A description of the steps you have taken to remedy the situation (Success Plan)

Once you are notified of not being eligible for financial aid (financial aid suspension), you have (5) working days to submit an appeal or up to the subsequent semester census date, whichever comes first. If your appeal is denied at any level (with the exception of a level 4 appeal) and you wish to appeal to the next level, you must submit a written notice immediately to the next level. Note: Education and career planning tools such as Kuder and Discovery are tools available for students. The assessment may be required for students requesting reinstatement, appeals, or change of program.
Repayment of Federal Funds: Return of Title IV

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

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.

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.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Interpretation</th>
<th>Grade Pts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent/Superior Performance Level</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Above Required Performance Level</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Minimum Required Performance Level</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Below Required Performance Level</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failure to Meet Performance Requirements</td>
<td>0</td>
</tr>
<tr>
<td>P</td>
<td>Pass/Meets Required Performance Level</td>
<td>NC</td>
</tr>
<tr>
<td>IP</td>
<td>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.)</td>
<td>NC</td>
</tr>
<tr>
<td>IM</td>
<td>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.)</td>
<td>NC</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td>NC</td>
</tr>
<tr>
<td>CR</td>
<td>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)</td>
<td>NC</td>
</tr>
<tr>
<td>UN</td>
<td>Unsatisfactory (for use in Continuing Education courses and programs)</td>
<td>NC</td>
</tr>
<tr>
<td>X</td>
<td>No Grade Assigned</td>
<td>NC</td>
</tr>
<tr>
<td>FA</td>
<td>Failing (prior to September 1988)</td>
<td>0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete (prior to September 1988)</td>
<td>NC</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory (prior to September 1988)</td>
<td>0</td>
</tr>
<tr>
<td>WF</td>
<td>Withdraw Failing (prior to September 1988)</td>
<td>0</td>
</tr>
<tr>
<td>WP</td>
<td>Withdraw Passing (prior to September 1988)</td>
<td>NC</td>
</tr>
</tbody>
</table>

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 probation or scholastic suspension. These scholastic levels alert faculty and staff to problems in the student’s scholastic performance so that appropriate intervention and assistance can be provided.

Scholastic Probation
A student whose SOP Cumulative or Term grade point average is below 2.00 at the end of an enrollment period is placed on scholastic probation. A student may continue on scholastic probation by achieving a 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 suspension who fails to achieve a SOP Term GPA of 2.00 or higher will be suspended for one semester. At the end of the suspension period, the student will be permitted to reapply for admission. A suspended student may appeal for a waiver of a suspension to the Vice President for Student Learning or designee. A student who re-enters the college after having been suspended will be placed on scholastic probation status and will be 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
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.

Student Success Program
The TSTC Student Success Program is established to comply with
the Texas Success Initiative (TSI) authorized by the State of Texas
beginning in 1989 and revised in 2003. In administering this state-
wide program, the Texas Higher Education Coordinating Board
adopted rules that state, in part, that Texas public institutions of
higher education use the flexibility and responsibility under the
rules to improve individualized programs to ensure the success of
students in higher education.

College Readiness Requirements
Before enrolling at TSTC, all students are evaluated for college
readiness. College readiness means a student may enroll in college
level classes providing prerequisites and other enrollment
requirements have been met. Students are determined to be college
ready based on:

• scores on an approved Texas Success Initiative (TSI) test,
• a college readiness designation on the official transcript from
  another Texas college or university,
• graduation with an associate or baccalaureate degree from a
  college or university,
• a grade of “C” or higher in a reading, writing and/or
  mathematics course in the list of college readiness courses.
• completion of an individualized learning plan and/or the
  capstone course for reading, writing, and/or mathematics, or
• documentation that they are exempt from the college
  readiness requirements (see “College Readiness
  Exemptions”).

Additional placement testing may be required for entry into
specific courses or programs. A determination of college readiness
must be made before a student can receive an Associate Degree.

College Readiness Advising Programs
Students who do not meet the criteria for college readiness must
meet with an advisor at the Office of Admissions and Records in
the Student Services Building. College readiness advisors will
work with students to establish an individualized learning plan.
The learning plan is developed for each individual student
according to the specific needs of the student and may include
enrollment in developmental courses, tutorials, laboratories
and/or other non-course based activities to prepare the student
for college-level coursework. The plan will specify the appropriate
measure for determining a student’s college readiness. Learning
plans may include provisions for students to retake an approved
TSI test, subject to availability.

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

<table>
<thead>
<tr>
<th>Test</th>
<th>Reading</th>
<th>Writing</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA</td>
<td>230</td>
<td>220</td>
<td>230</td>
</tr>
<tr>
<td>Accuplacer</td>
<td>78</td>
<td>80 with Essay Score = 5</td>
<td>63</td>
</tr>
<tr>
<td>Compass</td>
<td>81</td>
<td>59 with Essay Score = 5</td>
<td>39</td>
</tr>
<tr>
<td>Asset</td>
<td>41</td>
<td>40 with Essay Score = 5</td>
<td>38</td>
</tr>
<tr>
<td>Writing Essay</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

Special test accommodations are made for students with disabilities if such accommodations are requested at registration and before the appropriate deadline.

Exemptions from College Readiness Standards

1. Students who meet the following score standards for ACT, SAT, or TAKS tests may be exempt from college readiness standards in a specific skill area if the tests have been taken within the approved time frame. Students must provide official scores to the Counseling Center 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 enrolled in a certificate program of one-year or less with 42 or fewer semester credit hours.

3. 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.

4. 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 Center for more information.

College Readiness Courses
TSTC has designated the following courses to satisfy requirements college readiness standards. Students who transfer from regionally accredited institutions of higher education with grades of C or higher in these courses (or equivalents) are determined to be “college ready.” Students must submit official transcripts indicating successful completion of the course(s).

**Writing**
- ENGL 1301, 1302: Composition
- ENGL 1207, 2308: Creative Writing
- ENGL 2311, 2314, 2315: Technical & Business Writing
- WRIT 0200: Writing Skills II (or equivalent capstone developmental writing course)

**Reading**
- ENGL 2XXX: Any 2nd year English Literature Course
- GOVT 2301, 2302: U.S. Government
- HIST 1301, 1302: U.S. History
- HIST 2301: Texas History
- HUMA 1301: Introduction to Humanities
- PSYC 2301: General Psychology
- READ 0200: Reading Skills II (or equivalent capstone developmental reading course)
- SOCI 1301: Introduction to Sociology

**Mathematics**
- DMTH 0200: Intermediate Algebra (or equivalent capstone developmental math course)
- MATH 1314: College Algebra
- MATH 1316: Plane Trigonometry
- MATH 1324, 1325: Mathematics for Business & Social Sciences
- MATH 1332, 1333: Contemporary Mathematics
- MATH 1350, 1352: Fundamentals of Mathematics
- MATH 1342, 1442: Elementary Statistical Methods
- MATH 1348: Analytic Geometry

**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 courses and learning activities for students who need assistance with basic academic skills. As part of the Student Success Program at TSTC, services in Developmental Studies 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.

The following developmental education courses are offered at TSTC. Additional non-course based developmental activities may be offered by colleges in lieu of these courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>DMTH 0050</td>
<td>Basic Mathematics</td>
</tr>
<tr>
<td>DMTH 0100</td>
<td>Introductory Algebra</td>
</tr>
<tr>
<td>DMTH 0200</td>
<td>Intermediate Algebra</td>
</tr>
<tr>
<td>Reading</td>
<td></td>
</tr>
<tr>
<td>READ 0050</td>
<td>Basic Reading Skills</td>
</tr>
<tr>
<td>READ 0100</td>
<td>Reading Skills I</td>
</tr>
<tr>
<td>READ 0200</td>
<td>Reading Skills II</td>
</tr>
<tr>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td>WRIT 0050</td>
<td>Basic Writing Skills</td>
</tr>
<tr>
<td>WRIT 0100</td>
<td>Writing Skills I</td>
</tr>
<tr>
<td>WRIT 0200</td>
<td>Writing Skills II</td>
</tr>
</tbody>
</table>

(*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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 2346</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ARTS 1301</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ARTS 1303</td>
<td>Art History I</td>
<td></td>
</tr>
<tr>
<td>ARTS 1304</td>
<td>Art History II</td>
<td></td>
</tr>
<tr>
<td>ARTS 1316</td>
<td>Drawing I</td>
<td></td>
</tr>
<tr>
<td>COMM 2311*</td>
<td>News Gathering &amp; Writing I</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>ENGL 1301*</td>
<td>Composition I</td>
<td>READ 0200/WRIT 0200 or required placement scores</td>
</tr>
<tr>
<td>ENGL 1302*</td>
<td>Composition II</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>ENGL 2307</td>
<td>Creative Writing</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>ENGL 2314*</td>
<td>Technical &amp; Business Writing I</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>ENGL 2321</td>
<td>British Literature</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>ENGL 2326</td>
<td>American Literature</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>ENGL 2331</td>
<td>World Literature</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>MUSI 1306</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>PHIL 1301</td>
<td>Introduction to Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHIL 1304</td>
<td>Introduction to World Religions</td>
<td></td>
</tr>
<tr>
<td>PHIL 2306</td>
<td>Introduction to Ethics</td>
<td></td>
</tr>
<tr>
<td>SOCI 2319</td>
<td>Minority Studies I</td>
<td></td>
</tr>
<tr>
<td>SPAN 1311*</td>
<td>Beginning Spanish I</td>
<td></td>
</tr>
<tr>
<td>SPAN 1312*</td>
<td>Beginning Spanish II</td>
<td>SPAN 1311</td>
</tr>
<tr>
<td>SPAN 1411</td>
<td>Beginning Spanish I (for Non-native Speakers)</td>
<td>SPAN 1311</td>
</tr>
<tr>
<td>SPAN 1412</td>
<td>Beginning Spanish II (for Non-native Speakers)</td>
<td>SPAN 1411</td>
</tr>
<tr>
<td>SPAN 2311*</td>
<td>Intermediate Spanish I</td>
<td>SPAN 1313 or SPAN 1412 or equivalent</td>
</tr>
<tr>
<td>SPAN 2323</td>
<td>Introduction to Latin American Literature</td>
<td>SPAN 2311 or SPAN 1312</td>
</tr>
<tr>
<td>SPAN 2324</td>
<td>Spanish Culture</td>
<td>SPAN 2311 or SPAN 1312</td>
</tr>
<tr>
<td>SPCH 1311*</td>
<td>Introduction to Speech Communication</td>
<td></td>
</tr>
<tr>
<td>SPCH 1315*</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>SPCH 1318*</td>
<td>Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>SPCH 2333*</td>
<td>Discussion &amp; Small Group Communication</td>
<td></td>
</tr>
</tbody>
</table>

* May not be used to fulfill requirements for Humanities/Fine Arts Elective in AAS degrees.
<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Math/Natural Sciences:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I</td>
<td></td>
</tr>
<tr>
<td>BIOL 1307</td>
<td>Biology for Science Majors II</td>
<td></td>
</tr>
<tr>
<td>BIOL 1308</td>
<td>Biology for Non-Science Majors I</td>
<td></td>
</tr>
<tr>
<td>BIOL 1309</td>
<td>Biology for Non-Science Majors II</td>
<td></td>
</tr>
<tr>
<td>BIOL 2301</td>
<td>Anatomy &amp; Physiology I</td>
<td></td>
</tr>
<tr>
<td>BIOL 2302</td>
<td>Anatomy &amp; Physiology II</td>
<td>BIOL 2301</td>
</tr>
<tr>
<td>BIOL 2421</td>
<td>Microbiology for Science Majors</td>
<td>BIOL 2301</td>
</tr>
<tr>
<td>CHEM 1305</td>
<td>Introductory Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 1311</td>
<td>General Chemistry I</td>
<td>MATH 1314 or required placement scores</td>
</tr>
<tr>
<td>CHEM 1312</td>
<td>General Chemistry II</td>
<td>CHEM 1311</td>
</tr>
<tr>
<td>CHEM 2323</td>
<td>Organic Chemistry I</td>
<td>CHEM 1312</td>
</tr>
<tr>
<td>CHEM 2325</td>
<td>Organic Chemistry II</td>
<td>CHEM 2323</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra</td>
<td>DMTH 0200 or required placement scores</td>
</tr>
<tr>
<td>MATH 1316</td>
<td>Plane Trigonometry</td>
<td>MATH 1314</td>
</tr>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics I</td>
<td>DMTH 0200 or required placement scores</td>
</tr>
<tr>
<td>MATH 1350</td>
<td>Fundamentals of Mathematics I</td>
<td>DMTH 0200 or required placement scores</td>
</tr>
<tr>
<td>MATH 1351</td>
<td>Fundamentals of Mathematics II</td>
<td>MATH 1350</td>
</tr>
<tr>
<td>MATH 2305</td>
<td>Discrete Mathematics</td>
<td>MATH 2413</td>
</tr>
<tr>
<td>MATH 2312</td>
<td>Precalculus Math</td>
<td>MATH 1314</td>
</tr>
<tr>
<td>MATH 2318</td>
<td>Linear Algebra</td>
<td>MATH 1314</td>
</tr>
<tr>
<td>MATH 2320</td>
<td>Differential Equations</td>
<td>MATH 2414</td>
</tr>
<tr>
<td>MATH 2342</td>
<td>Elementary Statistical Methods</td>
<td>MATH 1314</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
<td>MATH 1316 or MATH 2312</td>
</tr>
<tr>
<td>MATH 2414</td>
<td>Calculus II</td>
<td>MATH 2413</td>
</tr>
<tr>
<td>MATH 2415</td>
<td>Calculus III</td>
<td>MATH 2414</td>
</tr>
<tr>
<td>PHYS 1401</td>
<td>College Physics I</td>
<td>MATH 1316</td>
</tr>
<tr>
<td>PHYS 1402</td>
<td>College Physics II</td>
<td>PHYS 1401</td>
</tr>
<tr>
<td>PHYS 1415</td>
<td>Physical Science I</td>
<td></td>
</tr>
<tr>
<td>PHYS 1417</td>
<td>Physical Science II</td>
<td></td>
</tr>
<tr>
<td>PHYS 2425</td>
<td>University Physics I</td>
<td>MATH 2413</td>
</tr>
<tr>
<td>PHYS 2426</td>
<td>University Physics II</td>
<td>PHYS 2425</td>
</tr>
<tr>
<td><strong>Behavioral/Social Sciences:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 2301</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>ECON 2302</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>GOVT 2301</td>
<td>American Government I</td>
<td>READ 0200 or required placement scores</td>
</tr>
<tr>
<td>GOVT 2302</td>
<td>American Government II</td>
<td>READ 0200 or required placement scores</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>United States History I</td>
<td>READ 0200 or required placement scores</td>
</tr>
<tr>
<td>HIST 1302</td>
<td>United States History II</td>
<td>READ 0200 or required placement scores</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology</td>
<td>READ 0200 or required placement scores</td>
</tr>
<tr>
<td>PSYC 2314</td>
<td>Lifespan Growth &amp; Development</td>
<td>READ 0200 or required placement scores</td>
</tr>
<tr>
<td>SOCI 1301</td>
<td>Introductory Sociology</td>
<td></td>
</tr>
<tr>
<td>SOCI 1306</td>
<td>Social Problems</td>
<td></td>
</tr>
</tbody>
</table>
General Education Academic Core

TSTC offers a core package of transferable 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:

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Rhetoric and Composition (6 hours)</td>
<td>ENGL 1301</td>
<td>Composition</td>
</tr>
<tr>
<td></td>
<td>ENGL 1302</td>
<td>Composition II</td>
</tr>
<tr>
<td>Mathematics (3 hours)</td>
<td>MATH 1314</td>
<td>College Algebra</td>
</tr>
<tr>
<td></td>
<td>MATH 1316</td>
<td>Plane Trigonometry</td>
</tr>
<tr>
<td></td>
<td>MATH 1332</td>
<td>Contemporary Mathematics</td>
</tr>
<tr>
<td></td>
<td>MATH 1350</td>
<td>Fundamentals of Math I</td>
</tr>
<tr>
<td></td>
<td>MATH 2312</td>
<td>Precalculus Math</td>
</tr>
<tr>
<td></td>
<td>MATH 2318</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td></td>
<td>MATH 2320</td>
<td>Differential Equations</td>
</tr>
<tr>
<td></td>
<td>MATH 2342</td>
<td>Elementary Statistical Methods</td>
</tr>
<tr>
<td></td>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td></td>
<td>MATH 2414</td>
<td>Calculus II</td>
</tr>
<tr>
<td></td>
<td>MATH 2415</td>
<td>Calculus III</td>
</tr>
<tr>
<td>Natural Science (6 hours)</td>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (no lab)</td>
</tr>
<tr>
<td></td>
<td>BIOL 1307</td>
<td>Biology for Science Majors II (no lab)</td>
</tr>
<tr>
<td></td>
<td>BIOL 1308</td>
<td>Biology for Non-Science Majors I (no lab)</td>
</tr>
<tr>
<td></td>
<td>BIOL 1309</td>
<td>Biology for Non-Science Majors II (no lab)</td>
</tr>
<tr>
<td></td>
<td>BIOL 2301</td>
<td>Anatomy &amp; Physiology I (no lab)</td>
</tr>
<tr>
<td></td>
<td>BIOL 2302</td>
<td>Anatomy &amp; Physiology II (no lab)</td>
</tr>
<tr>
<td></td>
<td>BIOL 2321</td>
<td>Microbiology for Science Majors</td>
</tr>
<tr>
<td></td>
<td>CHEM 1305</td>
<td>Introductory Chemistry I</td>
</tr>
<tr>
<td></td>
<td>CHEM 1311</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td></td>
<td>CHEM 1312</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td></td>
<td>PHYS 1401</td>
<td>College Physics I</td>
</tr>
<tr>
<td></td>
<td>PHYS 1402</td>
<td>College Physics II</td>
</tr>
<tr>
<td></td>
<td>PHYS 1415</td>
<td>Physical Science I</td>
</tr>
<tr>
<td></td>
<td>PHYS 1417</td>
<td>Physical Science II</td>
</tr>
<tr>
<td></td>
<td>PHYS 2425</td>
<td>University Physics</td>
</tr>
<tr>
<td></td>
<td>PHYS 2426</td>
<td>University Physics II</td>
</tr>
<tr>
<td></td>
<td>SOCI 2319</td>
<td>Minority Studies**</td>
</tr>
<tr>
<td></td>
<td>SPAN 2323</td>
<td>Introduction to Latin American Literature *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2324</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2325</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2326</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2327</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2328</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2329</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2330</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2331</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2332</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2333</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2334</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2335</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2336</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2337</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2338</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2339</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2340</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2341</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2342</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2343</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2344</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2345</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2346</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2347</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2348</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2349</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2350</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2351</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2352</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2353</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2354</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2355</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2356</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2357</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2358</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2359</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2360</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2361</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2362</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2363</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2364</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2365</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2366</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2367</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2368</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2369</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2370</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2371</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2372</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2373</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2374</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2375</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2376</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2377</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2378</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2379</td>
<td>Spanish Culture *</td>
</tr>
<tr>
<td></td>
<td>SPAN 2380</td>
<td>Spanish Culture *</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2401</td>
<td>Anatomy &amp; Physiology I</td>
</tr>
<tr>
<td>BIOL 2402</td>
<td>Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>BIOL 2421</td>
<td>Microbiology</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology</td>
</tr>
<tr>
<td>PSYC 2314</td>
<td>Life Span Growth &amp; Development</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>SPCH 1318</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>MATH 1314 or 1332</td>
<td>College Algebra or Contemporary Math I</td>
</tr>
</tbody>
</table>

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

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPRS 1101</td>
<td>Introduction to Health Professions</td>
</tr>
<tr>
<td>HPRS 1204</td>
<td>Basic Health Profession Skills</td>
</tr>
<tr>
<td>HPRS 1205</td>
<td>Medical Law / Ethics for Health Professions</td>
</tr>
<tr>
<td>HPRS 2300</td>
<td>Pharmacology for Health Professions</td>
</tr>
<tr>
<td>HITT 1305</td>
<td>Medical Terminology</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2401</td>
<td>Principles of Accounting I - Financial</td>
</tr>
<tr>
<td>ACCT 2402</td>
<td>Principles of Accounting II - Managerial</td>
</tr>
<tr>
<td>BCIS 1305</td>
<td>Business Computer Applications</td>
</tr>
<tr>
<td>BUSI 1301</td>
<td>Business Principles</td>
</tr>
<tr>
<td>BUSI 2301</td>
<td>Business Law</td>
</tr>
<tr>
<td>COMM 2311</td>
<td>News Gathering &amp; Writing</td>
</tr>
<tr>
<td>COSC 1301</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>ENGL 2314</td>
<td>Technical &amp; Business Writing</td>
</tr>
<tr>
<td>ENGL 2307</td>
<td>Creative Writing</td>
</tr>
<tr>
<td>ENGR 1201</td>
<td>Introduction to Engineering</td>
</tr>
<tr>
<td>ENGR 1204</td>
<td>Engineering Graphics</td>
</tr>
<tr>
<td>ENGR 2301</td>
<td>Engineering Mechanics I - Statics</td>
</tr>
<tr>
<td>ENGR 2304</td>
<td>Programming for Engineers</td>
</tr>
<tr>
<td>ENGR 2305</td>
<td>Circuit Analysis I</td>
</tr>
<tr>
<td>ENGR 2105</td>
<td>Circuit Analysis I Lab</td>
</tr>
<tr>
<td>ENVR 1401</td>
<td>Environmental Science I</td>
</tr>
<tr>
<td>MATH 2305</td>
<td>Discrete Mathematics</td>
</tr>
<tr>
<td>SPAN 2311</td>
<td>Intermediate Spanish</td>
</tr>
<tr>
<td>TECA 1354</td>
<td>Child Growth and Development</td>
</tr>
</tbody>
</table>

(*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 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.
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.

<table>
<thead>
<tr>
<th>CLEP Subject Test Name</th>
<th>Score</th>
<th>Minimum Credits</th>
<th>TSTC Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Accounting</td>
<td>50</td>
<td>6</td>
<td>ACCT 2301, 2302, 2401, 2402</td>
</tr>
<tr>
<td>General Biology</td>
<td>50</td>
<td>8</td>
<td>BIOL 1406, 1407</td>
</tr>
<tr>
<td>Introductory Business Law</td>
<td>50</td>
<td>3</td>
<td>BUSI 2301</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>50</td>
<td>8</td>
<td>CHEM 1411, 1412</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>50</td>
<td>3</td>
<td>ECON 2301</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>50</td>
<td>3</td>
<td>ECON 2302</td>
</tr>
<tr>
<td>English Composition with Essay</td>
<td>50</td>
<td>6</td>
<td>ENGL 1301, 1302</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>6</td>
<td>ENGL 2322, 2323</td>
</tr>
<tr>
<td>American Literature</td>
<td>50</td>
<td>6</td>
<td>ENGL 2327, 2328</td>
</tr>
<tr>
<td>American Government</td>
<td>50</td>
<td>3</td>
<td>GOVT 2305</td>
</tr>
<tr>
<td>History of U.S. I</td>
<td>50</td>
<td>3</td>
<td>HIST 1301</td>
</tr>
<tr>
<td>History of U.S. II</td>
<td>50</td>
<td>3</td>
<td>HIST 1302</td>
</tr>
<tr>
<td>Humanities</td>
<td>50</td>
<td>6</td>
<td>HUMA 1301, 1302</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>3</td>
<td>MATH 1314</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>50</td>
<td>3</td>
<td>MATH 2413</td>
</tr>
<tr>
<td>Calculus w/ Elementary Functions</td>
<td>50</td>
<td>4</td>
<td>MATH 2413</td>
</tr>
<tr>
<td>Pre Calculus</td>
<td>50</td>
<td>3</td>
<td>MATH 2312</td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>50</td>
<td>3</td>
<td>PSYC 2301</td>
</tr>
<tr>
<td>Human Growth and Development</td>
<td>50</td>
<td>3</td>
<td>PSYC 2314</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50</td>
<td>3</td>
<td>SOCI 1301</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>50</td>
<td>3</td>
<td>SPAN 1311</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>53</td>
<td>6</td>
<td>SPAN 1311, 1312</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>64</td>
<td>12</td>
<td>SPAN 1311, 1312, 2311, 2312</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>AP Subject Test Name</th>
<th>Score</th>
<th>Minimum Credits</th>
<th>TSTC Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art, History of</td>
<td>3</td>
<td>3</td>
<td>ARTS 1303</td>
</tr>
<tr>
<td>Art, History of</td>
<td>4</td>
<td>6</td>
<td>ARTS 1303, 1304</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>4</td>
<td>BIOL 1406</td>
</tr>
<tr>
<td>Biology</td>
<td>4</td>
<td>8</td>
<td>BIOL 1406, 1407</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>4</td>
<td>CHEM 1411</td>
</tr>
<tr>
<td>Chemistry</td>
<td>4</td>
<td>8</td>
<td>CHEM 1411, 1412</td>
</tr>
<tr>
<td>AP Subject Test Name</td>
<td>Score</td>
<td>Minimum Credits</td>
<td>TSTC Course(s)</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------</td>
<td>-----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3</td>
<td>3</td>
<td>COSC 1301, ITSC 1302, 1307</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>4</td>
<td>3</td>
<td>ECON 2301</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>4</td>
<td>3</td>
<td>ECON 2302</td>
</tr>
<tr>
<td>English Language</td>
<td>3</td>
<td>3</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>English Language</td>
<td>4</td>
<td>6</td>
<td>ENGL 1301, 1302</td>
</tr>
<tr>
<td>English Literature</td>
<td>3</td>
<td>3</td>
<td>ENGL 2322, 2323</td>
</tr>
<tr>
<td>English Literature</td>
<td>4</td>
<td>6</td>
<td>ENGL 2322, 2323</td>
</tr>
<tr>
<td>U. S. Government &amp; Politics</td>
<td>3</td>
<td>3</td>
<td>GOVT 2305</td>
</tr>
<tr>
<td>U. S. History</td>
<td>3</td>
<td>3</td>
<td>HIST 1301</td>
</tr>
<tr>
<td>History of U. S.</td>
<td>4</td>
<td>6</td>
<td>HIST 1301, 1302</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3</td>
<td>3</td>
<td>MUSI 1306</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>3</td>
<td>MATH 1342</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3</td>
<td>3</td>
<td>MATH 2312</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>4</td>
<td>4</td>
<td>MATH 2413</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3</td>
<td>4</td>
<td>MATH 2414</td>
</tr>
<tr>
<td>Physics B</td>
<td>3</td>
<td>8</td>
<td>PHYS 1401, 1402</td>
</tr>
<tr>
<td>Physics C</td>
<td>3</td>
<td>8</td>
<td>PHYS 2425, 2426</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>3</td>
<td>PSYC 2301</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3</td>
<td>3</td>
<td>SPAN 1311</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>4</td>
<td>6</td>
<td>SPAN 1311, 1312</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>5</td>
<td>12</td>
<td>SPAN 1311, 1312, 2311, 2312</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>4</td>
<td>3</td>
<td>SPAN 2323</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>5</td>
<td>6</td>
<td>SPAN 2323, 2324</td>
</tr>
</tbody>
</table>

**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.

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

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 of Student Learning for approval.

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

More specific information on credit award for continuing education units and experiential learning may be obtained from the Continuing Education Office. Testing center and/or evaluation fees may apply.
Courses as part of their high school curriculum. While similar to
with the TSTC colleges. Students attending ECHS enroll in TSTC
degree. Early college high schools may be located on or associated
associate's degree or up to two years of credit toward a bachelor's
degree. TSTC offers instruction through a variety of electronic media,
including videoconferencing and the Internet. Through
courses are taught on weekdays during the day, with selected courses offered during the evenings
and/or on Saturdays. Continuing education and workforce
teaching training courses are scheduled throughout these time periods;
contact the Continuing Education Office for details.

Day/Evening Weekend Courses
The majority of college credit courses are taught on weekdays
cooperative experiences should discuss the opportunities with
their department chairpersons.

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.

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 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
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 $150 deposit, the Release of Background Information Form and the non-refundable criminal background check fee of $8. A proof of bacterial meningitis vaccination is also needed ten days prior to move-in. 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. Services are provided by a Licensed Professional Counselor as well as experienced advisors. Students are encouraged to make appointments; however, walk-ins are welcomed and accommodated, based on counselor availability.

Counseling services promote 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.

A Behavior Intervention Team has been established in order to support student success and to assist in protecting the health, safety and welfare of the students and members of the college community.

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 group fitness classes.

The Wellness and Sports Center consists of a gymnasium, cardio room, weight room, and two racquetball courts in side, and two athletic fields, a walking trail, basketball courts and two tennis courts outside. Fitness Rewards and Weight Loss incentive programs are offered each semester.

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 Spring, five Division Senators 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.

Notes:______________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
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

<table>
<thead>
<tr>
<th>Meal</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>7:00-10:30am</td>
</tr>
<tr>
<td>Lunch</td>
<td>11:00am-2:00pm</td>
</tr>
</tbody>
</table>

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 are required to see a physician, you will be referred to your private physician or to a local physician in the Harlingen area.

Medical Fees
In the case of an emergency, students are responsible for all medical fees incurred, including ambulance transfers, hospitalizations, emergency room visits, or medical facility usage. Students are encouraged to carry school or private insurance to help defray medical costs.

Immunization Vaccines
Student Health Services administers the tuberculosis test and the bacterial meningitis vaccine throughout the school year. All vaccination fees must be paid at the Cashier’s Window and a receipt presented to the Nurse prior to receiving any vaccination. Contact the College Nurse for vaccination schedules. All other immunizations must be obtained from a private physician.

Health Insurance
Student Health Services offers a low-cost plan that provides limited medical coverage in the event of an illness or accident. This policy may not cover pre-existing medical conditions. 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.cdc.gov/meningitis/about/faq.html.
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 disclosed. 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.

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 declared non-traditional program of study leading to an Associate Degree or Certificate of Completion 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 qualifying Single Parents, Displaced Homemakers, and Single Expectant Mothers that are enrolled full-time in a declared technical program of study leading to an Associate Degree or Certificate of Completion at TSTC Harlingen with the following services: childcare referrals, textbook assistance, community referrals, and sensitivity and developmental workshops.

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

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.
- be enrolled in at least one technical course in the declared program of study. (Course must be noted in the program of study degree plan.)

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 Tech Prep Building P, or visit our website at www.harlingen.tstc.edu/supportservices.

Notes:
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.

*Contingent upon the availability of funds.

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.

Career 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. Career Services 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.myinterface.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. Career Services conducts follow-up studies which help to determine the effectiveness of education and training and overall student success.

Career Services is committed to equal opportunity in employment and does not discriminate on the grounds of race, color, 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 220 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

Innovation
Creating and implementing new ideas and methods
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
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
MARKETABLE SKILLS AWARD
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.
Agricultural Technology

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."

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAH 1401 Animal Science †</td>
<td>4</td>
</tr>
<tr>
<td>AGMG 1300 Agricultural Policies, Safety &amp; Codes †</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1406 General Biology I*</td>
<td>4</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Semester 2

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAH 1347 Animal Reproduction</td>
<td>3</td>
</tr>
<tr>
<td>AGAH 2413 Principles of Feeds &amp; Feeding</td>
<td>4</td>
</tr>
<tr>
<td>AGCR 1403 Crop Science</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1301 Composition I †</td>
<td>3</td>
</tr>
<tr>
<td>Behavioral/Social Science Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

Semester 3

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGCR 2305 Entomology</td>
<td>3</td>
</tr>
<tr>
<td>AGCR 2313 Soil &amp; Water Conservation Management</td>
<td>3</td>
</tr>
<tr>
<td>AGMG 1318 Introduction to Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1318 Interpersonal Communications***</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Semester 4

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1407 General Biology II † ‡</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1405 Introductory Chemistry I (or CHEM 1411) † §</td>
<td>4</td>
</tr>
<tr>
<td>EPCT 1211 Introduction to Environmental Science (or AGCR 1341)</td>
<td>2</td>
</tr>
<tr>
<td>TECM 1303 Technical Mathematics (or MATH 1314)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

Semester 5

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2401 Principles of Accounting I - Financial ‡</td>
<td>4</td>
</tr>
<tr>
<td>AGMG 1311 Introduction to Agribusiness</td>
<td>3</td>
</tr>
<tr>
<td>AGMG 1344 Agricultural Records Management* **</td>
<td>3</td>
</tr>
<tr>
<td>AGMG 2312 Marketing of Agricultural Products</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>72</strong></td>
</tr>
</tbody>
</table>

* 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 1344.
*BIOL 1306 and BIOL 1106 may be taken in place of BIOL 1406
**SPCH 1311 or SPCH 2333 may be taken in place of SPCH 1318.
‡ BIOL 1307 and BIOL 1107 may be taken in place of BIOL 1407.
§ CHEM 1305 and CHEM 1105 may be taken in place of CHEM 1405.
π ENGL 1302 or ENGL 2314 may be taken in place of ACCT 2401.

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.

Students successfully completing the course(s) of study of the Air Conditioning and Refrigeration Technology program are eligible to take the EPA 410 Refrigerant certification examination administered by the Environmental Protection Agency.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>HART 1310 HVAC Shop Practices and Tools</td>
<td>3</td>
</tr>
<tr>
<td>HART 1401 Basic Electricity for HVAC †</td>
<td>4</td>
</tr>
<tr>
<td>HART 1407 Refrigeration Principles †</td>
<td>4</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
</tbody>
</table>

Semester 2

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>HART 1300 Duct Design and Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>HART 1441 Residential Air Conditioning</td>
<td>4</td>
</tr>
<tr>
<td>MAIR 1449 Refrigerators, Freezers, Window Air Conditioners</td>
<td>4</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
</tbody>
</table>

Semester 3

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFTG 1313 Drafting for Specific Occupations</td>
<td>3</td>
</tr>
<tr>
<td>HART 1403 Air Conditioning Control Principles</td>
<td>4</td>
</tr>
<tr>
<td>HART 2442 Commercial Refrigeration</td>
<td>4</td>
</tr>
<tr>
<td>Math/Natural Science Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
</tbody>
</table>

Semester 4

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HART 1445 Gas &amp; Electric Heating</td>
<td>4</td>
</tr>
<tr>
<td>HART 2438 Air Conditioning Installation &amp; Startup ** ‡</td>
<td>4</td>
</tr>
<tr>
<td>HART 2441 Commercial Air Conditioning</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

Semester 5

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>HART 2436 Air Conditioning Troubleshooting †</td>
<td>4</td>
</tr>
<tr>
<td>HART 2445 Residential Air Conditioning</td>
<td>4</td>
</tr>
<tr>
<td>Systems Design</td>
<td></td>
</tr>
<tr>
<td>Behavioral/Social Science Elective †</td>
<td>3</td>
</tr>
<tr>
<td>SPCH Speech Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>71</td>
</tr>
</tbody>
</table>

† This course is designated as the capstone course.
† High school articulated courses.
‡ Courses with external experience.
** HART 2380, HART 2381 or HART 2680 (Co-op) may be taken in place of HART 2438.

Notes:________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
Auto Collision Technology

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 Humanities/Fine Arts Elective † | 4
**Total Hours** | 13
**GRAND TOTAL** | 72

* 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

Systems 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."

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>AUMT 1201</td>
<td>Introduction &amp; Theory of Automotive Technology †</td>
</tr>
<tr>
<td>AUMT 1407</td>
<td>Automotive Electrical Systems †</td>
</tr>
<tr>
<td>AUMT 1416</td>
<td>Automotive Suspension &amp; Steering Systems †</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations † (or PSYC 2301)</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>AUMT 1410</td>
<td>Automotive Brake Systems †</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I †</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra (or MATH 1332) †</td>
</tr>
<tr>
<td>AUMT 1445</td>
<td>Automotive Heating &amp; Air Conditioning</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>AUMT 2417</td>
<td>Automotive Engine Performance Analysis I †</td>
</tr>
<tr>
<td>AUMT 2421</td>
<td>Automotive Electrical Lighting &amp; Accessories</td>
</tr>
<tr>
<td>AUMT 1419</td>
<td>Automotive Engine Repair †</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td>Semester 4</td>
<td></td>
</tr>
<tr>
<td>AUMT 2270</td>
<td>Automotive Technician Certification Standards</td>
</tr>
<tr>
<td>AUMT 2413</td>
<td>Automotive Drive Train &amp; Axles</td>
</tr>
<tr>
<td>AUMT 2425</td>
<td>Automotive Automatic Transmission &amp; Transaxle</td>
</tr>
<tr>
<td>AUMT 2434</td>
<td>Automotive Engine Performance Analysis II</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td>Semester 5</td>
<td></td>
</tr>
<tr>
<td>AUMT 2301</td>
<td>Automotive Management° **</td>
</tr>
<tr>
<td>DEMR 2434</td>
<td>Advanced Diesel Tune-Up and Troubleshooting</td>
</tr>
<tr>
<td>SPCH</td>
<td>Speech Elective †</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective †</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>16</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>69</strong></td>
</tr>
</tbody>
</table>

° 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.
Aviation Maintenance Technology

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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>AERM 1203 Shop Practices †</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1205 Weight &amp; Balance †</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1208 Federal Aviation Regulations</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1210 Ground Operations †</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1314 Basic Electricity †</td>
<td>3</td>
</tr>
<tr>
<td>AERM 1315 Aviation Science †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

| **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 1 †        | 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*

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERM 1352 Aircraft Sheet Metal</td>
<td>3</td>
</tr>
<tr>
<td>AERM 2231 Airframe Inspection ²</td>
<td>2</td>
</tr>
<tr>
<td>AERM 2351 Aircraft Turbine Engine Overhaul</td>
<td>3</td>
</tr>
<tr>
<td>AERM 2352 Aircraft Powerplant Inspection</td>
<td>3</td>
</tr>
<tr>
<td>AERM 2447 Aircraft Reciprocating Engine Overhaul</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**GRAND TOTAL** 86

* This course has been designated as a capstone experience.
† High school articulated course.
² 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.
³ 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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>BIOM 1201</td>
<td>Biomedical Equipment Technology† 2</td>
</tr>
<tr>
<td>RBTC 1305</td>
<td>Robotics Fundamentals 3</td>
</tr>
<tr>
<td>CETT 1303</td>
<td>DC Circuits † 3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations† 3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra (or MATH 2312) † 3</td>
</tr>
<tr>
<td>BIOM 1205</td>
<td>Soldering Skills and Shop Safety 2</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>16</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>BIOM 1309</td>
<td>Application Biomedical Equipment Technology (OR BIOL 2401 and BIOL 2101) 3</td>
</tr>
<tr>
<td>CETT 1305</td>
<td>AC Circuits † 3</td>
</tr>
<tr>
<td>CETT 1325</td>
<td>Digital Fundamentals 3</td>
</tr>
<tr>
<td>INTC 1357</td>
<td>AC/DC Motor Controls 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>BIOM 2301</td>
<td>Safety in Health Care Facilities 3</td>
</tr>
<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking Technologies 3</td>
</tr>
<tr>
<td>BIOM 1391</td>
<td>Special Topics in Biomedical Engineering-Related Technology/Technician 3</td>
</tr>
<tr>
<td>ELMT 2333</td>
<td>Industrial Electronics 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
<tr>
<td>Semester 4</td>
<td></td>
</tr>
<tr>
<td>BIOM 1355</td>
<td>Medical Electronic Applications 3</td>
</tr>
<tr>
<td>BIOM 2315</td>
<td>Physiological Instruments I 3</td>
</tr>
<tr>
<td>BIOM 2288</td>
<td>Internship: Biomedical Technology/Technician** 2</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology † (or SOCI 1301) 3</td>
</tr>
<tr>
<td>ELMT 2333</td>
<td>Humanities/Fine Arts Elective † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
<tr>
<td>Semester 5</td>
<td></td>
</tr>
<tr>
<td>BIOM 1341</td>
<td>Medical Circuits/Troubleshooting 3</td>
</tr>
<tr>
<td>BIOM 2319</td>
<td>Fundamentals of X-Ray and Medical Imaging Systems 3</td>
</tr>
<tr>
<td>BIOM 2343</td>
<td>General Medical Equipment II 3</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I † 3</td>
</tr>
<tr>
<td>SPCH 1301</td>
<td>Speech Elective † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>15</td>
</tr>
<tr>
<td>Semester 6</td>
<td></td>
</tr>
<tr>
<td>BIOM 2380</td>
<td>Cooperative Education – Biomedical Technology/Technician 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>72</td>
</tr>
</tbody>
</table>

° Course designated as capstone course.
† High School articulated course.

Notes:__________________________________________________________
__________________________________________________________
Building Construction Science

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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>CNBT 1416</td>
<td>Construction Technology I 4</td>
</tr>
<tr>
<td>CNBT 1300</td>
<td>Residential and Light Commercial Blueprint Reading 3</td>
</tr>
<tr>
<td>OSHT 1405</td>
<td>OSHA Regulations - Construction Industry 4</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>CNBT 1449</td>
<td>Concrete II 4</td>
</tr>
<tr>
<td>CRPT 1315</td>
<td>Conventional Wall Systems 3</td>
</tr>
<tr>
<td>CRPT 2339</td>
<td>Specialty Exterior Finish Systems † 3</td>
</tr>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics I † 3 (or MATH 1314)</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>CRPT 1341</td>
<td>Conventional Exterior Finish Systems ‡ 3</td>
</tr>
<tr>
<td>CRPT 1345</td>
<td>Conventional Interior Finish Systems 3</td>
</tr>
<tr>
<td>CRPT 1411</td>
<td>Conventional Roof Systems 4</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td>Semester 4</td>
<td></td>
</tr>
<tr>
<td>CNBT 1346</td>
<td>Construction Estimating I 3</td>
</tr>
<tr>
<td>WDK 1413</td>
<td>Cabinet Making I 4</td>
</tr>
<tr>
<td></td>
<td>Humanities/Fine Arts Elective † 3</td>
</tr>
<tr>
<td></td>
<td>Behavioral/Social Science Elective † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td>Semester 5</td>
<td></td>
</tr>
<tr>
<td>CNBT 1342</td>
<td>Building Codes &amp; Inspections ‡ † 3</td>
</tr>
<tr>
<td>CNBT 2437</td>
<td>Construction Estimating II 4</td>
</tr>
<tr>
<td>CNBT 2310</td>
<td>Commercial and Industrial Blue Print Reading 3</td>
</tr>
<tr>
<td>SPCH</td>
<td>Speech Elective † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>66</strong></td>
</tr>
</tbody>
</table>

° 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 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."

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>ACNT 1303</td>
<td>Introduction to Accounting I † 3</td>
</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I † 3</td>
</tr>
<tr>
<td>POFT 1329</td>
<td>Beginning Keyboarding 3</td>
</tr>
<tr>
<td>LAWT 1301</td>
<td>Copyright and Ethical Issues 3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>ACNT 1311</td>
<td>Introduction to Computerized Accounting 3</td>
</tr>
<tr>
<td>ITSC 2301</td>
<td>Integrated Software Applications II 3</td>
</tr>
<tr>
<td>POFT 1301</td>
<td>Business English † 3</td>
</tr>
<tr>
<td>POFT 1319</td>
<td>Records and Information Management 3</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective † 3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>ITSW 1307</td>
<td>Introduction to Database 3</td>
</tr>
<tr>
<td>POFI 2331</td>
<td>Desktop Publishing † 3</td>
</tr>
<tr>
<td>POFT 1309</td>
<td>Administrative Office Procedures I † 3</td>
</tr>
<tr>
<td>Approved Technical Elective* 3</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Science Elective † 3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td>Semester 4</td>
<td></td>
</tr>
<tr>
<td>BMGT 1327</td>
<td>Principles of Management † 3</td>
</tr>
<tr>
<td>MRKG 1301</td>
<td>Customer Relationship Management 3</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I † 3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra (or MATH 1332) † 3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td>Semester 5</td>
<td></td>
</tr>
<tr>
<td>BMGT 2309</td>
<td>Leadership 3</td>
</tr>
<tr>
<td>HRPO 2301</td>
<td>Human Resources Management 3</td>
</tr>
<tr>
<td>POFT 2331</td>
<td>Administrative Systems* † 3</td>
</tr>
<tr>
<td>SPCH</td>
<td>Speech Elective † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>69</strong></td>
</tr>
</tbody>
</table>

° 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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>CTEC 1205</td>
<td>2</td>
</tr>
<tr>
<td>EPCT 1211</td>
<td>2</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>3</td>
</tr>
<tr>
<td>SCIT 1414</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong>:</td>
<td>11</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>CTEC 1206</td>
<td>2</td>
</tr>
<tr>
<td>EPCT 1344</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>3</td>
</tr>
<tr>
<td>SCIT 1415</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong>:</td>
<td>12</td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>3</td>
</tr>
<tr>
<td>SCIT 1543</td>
<td>5</td>
</tr>
<tr>
<td>SCIT 2401</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong>:</td>
<td>15</td>
</tr>
<tr>
<td>Semester 4</td>
<td></td>
</tr>
<tr>
<td>CTEC 1441</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 2441</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 2445</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong>:</td>
<td>15</td>
</tr>
<tr>
<td>Semester 5</td>
<td></td>
</tr>
<tr>
<td>CTEC 2250</td>
<td>2</td>
</tr>
<tr>
<td>CTEC 2443</td>
<td>4</td>
</tr>
<tr>
<td>EPCT 2335</td>
<td>3</td>
</tr>
<tr>
<td>SPCH</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong>:</td>
<td>12</td>
</tr>
<tr>
<td>Semester 6</td>
<td></td>
</tr>
<tr>
<td>CTEC 2333</td>
<td>3</td>
</tr>
<tr>
<td>EPCT 1203</td>
<td>2</td>
</tr>
<tr>
<td>EPCT 1251</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Hours</strong>:</td>
<td>7</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong>:</td>
<td>72</td>
</tr>
</tbody>
</table>

* 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:

_____________________________________________________
_____________________________________________________
_____________________________________________________
_____________________________________________________

w w w . t s t c . e d u | 8 0 0 . 8 5 2 . 8 7 8 4
Computer Drafting and Design 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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301 Composition I †</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 1305 Technical Drafting †</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 1309 Basic Computer-Aided Drafting †</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFTG 2312 Technical Illustration and Presentation</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 1333 Mechanical Drafting</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 2350 Geometric Dimensioning &amp; Tolerancing</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2301 General Psychology †</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1314 College Algebra †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFTG 1317 Architectural Drafting-Residential †</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 2340 Solid Modeling/Design</td>
<td>3</td>
</tr>
<tr>
<td>SRVY 2348 Plane Surveying</td>
<td>3</td>
</tr>
<tr>
<td>GISC 1311 Introduction to Geographic Information Systems (GIS)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1316 Plane Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFTG 2328 Architectural Drafting-Commercial ‡</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 2332 Advanced Computer-Aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 2330 Civil Drafting</td>
<td>3</td>
</tr>
<tr>
<td>GISC 2320 Intermediate Geographic Information Systems (GIS)</td>
<td>3</td>
</tr>
<tr>
<td>SPCH Speech Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFTG 2331 Adv. Technologies in Architectural Drafting-Commercial ‡</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 2306 Machine Design ° **</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 2321 Topographical Drafting °</td>
<td>3</td>
</tr>
<tr>
<td>GISC 1301 Cartography and Geography in GIS &amp; GPS</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective ° †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTALS</strong></td>
<td><strong>72</strong></td>
</tr>
</tbody>
</table>

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

Notes:
_____________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________

www.tstc.edu | 800.852.8784
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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking Technologies † 3</td>
</tr>
<tr>
<td>CPMT 1303</td>
<td>Introduction to computer Technology † 3</td>
</tr>
<tr>
<td>ITNW 1354</td>
<td>Implementing &amp; Supporting Servers 3</td>
</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I † 3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

| Semester 2  |              |
| CPMT 1304   | Microcomputer System Software† 3 |
| ITSE 1331   | Introduction to Visual Basic Programming (or ITNW 2305) |
| ITNW 2321   | Networking with TCP/IP 3 |
| ITNW 2309   | Network Administration for Intranet 3 |
| MATH 1314   | College Algebra † 3 |
| **Total Hours** | 15 |

| Semester 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** | 12 |

| Semester 4  |              |
| ITSY 2301   | Firewalls & Network Security 3 |
| ITSY 2330   | Intrusion Detection 3 |
| ITNW 2359   | Web Server Support & Maintenance 3 |
| SPCH 1318   | Interpersonal Communication † 3 |
| **Approved Technical Elective** ** 2 |
| **Total Hours** | 14 |

| Semester 5  |              |
| ITNW 2350   | Enterprise Network ° ** 3 |
| ITNW 1392   | Special Topics in Computer Systems and Telecommunications 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 Systems Management 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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>CPMT 1303</td>
<td>Introduction to Computer Technology † 3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra † 3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations † 3</td>
</tr>
<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking Technology 3</td>
</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

| 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 |
| GAME 1301  | Computer Ethics 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 Support 3 |
| ITSE 1331  | Introduction to Visual BASIC Program (or ITSC 1321) 3 |
| ENGL 1301  | Composition I † 3 |
| **Total Hours** | 15 |

| Semester 4 |          |
| CPMT 1347  | Computer System Peripherals 3 |
| SPCH       | Speech Elective † 3 |
| ITSC 1307  | UNIX Operating System I (or ITNW 2309) 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."

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
</table>

**Semester 1**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEF 1205</td>
<td>Sanitation and Safety † 2</td>
</tr>
<tr>
<td>CHEF 1301</td>
<td>Basic Food Preparation † 3</td>
</tr>
<tr>
<td>IFWA 1205</td>
<td>Food Service Equipment &amp; Planning 2</td>
</tr>
<tr>
<td>RSTO 1204</td>
<td>Dining Room Service 2</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
</tbody>
</table>

**Semester 2**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEF 2301</td>
<td>Intermediate Food Preparation 3</td>
</tr>
<tr>
<td>FDNS 1305</td>
<td>Nutrition † 3</td>
</tr>
<tr>
<td>IFWA 1219</td>
<td>Meat Identifying &amp; Processing 2</td>
</tr>
<tr>
<td>RSTO 2301</td>
<td>Principles of Food &amp; Beverage Controls 3</td>
</tr>
<tr>
<td>SOCI 1301</td>
<td>Introduction to Sociology 3</td>
</tr>
<tr>
<td>(or Social Behavior Elective) †</td>
<td></td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
</tbody>
</table>

**Semester 3**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEF 1314</td>
<td>A la Carte Cooking 3</td>
</tr>
<tr>
<td>RSTO 1325</td>
<td>Purchasing for Hospitality Operations 3</td>
</tr>
<tr>
<td>PSTR 1401</td>
<td>Fundamentals of Baking 4</td>
</tr>
<tr>
<td>POFT 1321</td>
<td>Business Math (or MATH 1314) † 3</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition 1 † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

**Semester 4**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFWA 2437</td>
<td>Special Projects &amp; Field Work ‡ 4</td>
</tr>
<tr>
<td>RSTO 1313</td>
<td>Hospitality Supervision 3</td>
</tr>
<tr>
<td>RSTO 2307</td>
<td>Catering 3</td>
</tr>
<tr>
<td>BIOL 1408</td>
<td>General Biology I † * 4</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Humanities/Fine Arts Elective † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

**Semester 5**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFWA 2341</td>
<td>Specialized Food Preparation † ** ‡ 3</td>
</tr>
<tr>
<td>RSTO 1221</td>
<td>Menu Management 2</td>
</tr>
<tr>
<td>SPCH</td>
<td>Speech Elective † 3</td>
</tr>
<tr>
<td>RSTO 1201</td>
<td>Beverage Management 2</td>
</tr>
<tr>
<td>BMGT 1327</td>
<td>Principles of Management (or HRPO 2301) † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>13</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>72</td>
</tr>
</tbody>
</table>

* This course has been designated as the capstone course.
† High School articulated course.
‡ Courses include external experience.
** CHEF 2480 or CHEF 2680 (Co-op) may be taken in place of IFWA 2341.
* BIOL 1308 and BIOL 1108 may be taken in place of BIOL 1408.

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**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1411</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2401</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Hours 8**

**Semester 2**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2402</td>
<td>4</td>
</tr>
<tr>
<td>DHYG 1227</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 1301</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 1331</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours 15**

**Semester 3**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2421</td>
<td>4</td>
</tr>
<tr>
<td>DHYG 1235</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 1260</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 1304</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 1260</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours 14**

**Semester 4**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHYG 1211</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 1261</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 1319</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 1301</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours 10**

**Semester 5**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHYG 1215</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 1239</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 2301</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 2360</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours 13**

**Semester 6**

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHYG 1123</td>
<td>1</td>
</tr>
<tr>
<td>DHYG 1207</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 2361</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>3</td>
</tr>
<tr>
<td>SPCH</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours 12**

**GRAND TOTAL 72**

* This course is designated as a capstone course.
† Course with external experience.
‡ High school articulated course
§ BIOL 2321 and BIOL 2121 may be taken in place of BIOL 2421.
*** BIOL 2302 and BIOL 2102 may be taken in place of BIOL 2402.
§§ BIOL 2321 and BIOL 2121 may be taken in place of BIOL 2421
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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>DLBT 1201</td>
<td>Dental Anatomy &amp; Tooth Morphology 2</td>
</tr>
<tr>
<td>DLBT 1209</td>
<td>Removable Partial Denture Techniques I 2</td>
</tr>
<tr>
<td>DLBT 1213</td>
<td>Complete Denture Techniques I 2</td>
</tr>
<tr>
<td>DLBT 1217</td>
<td>Fixed Restorative Techniques I 2</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>11</strong></td>
</tr>
<tr>
<td><strong>Semester 2</strong></td>
<td></td>
</tr>
<tr>
<td>DLBT 1205</td>
<td>Dental Materials 2</td>
</tr>
<tr>
<td>DLBT 2204</td>
<td>Removable Partial Denture Techniques II 2</td>
</tr>
<tr>
<td>DLBT 2207</td>
<td>Complete Denture Techniques II 2</td>
</tr>
<tr>
<td>DLBT 2211</td>
<td>Fixed Restorative Techniques II 2</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I † 3</td>
</tr>
<tr>
<td>SPCH</td>
<td>Speech Elective † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td><strong>Semester 3</strong></td>
<td></td>
</tr>
<tr>
<td>DLBT 2215</td>
<td>Removable Partial Denture Techniques III 2</td>
</tr>
<tr>
<td>DLBT 2217</td>
<td>Complete Denture Techniques III 2</td>
</tr>
<tr>
<td>DLBT 2241</td>
<td>Dental Ceramics I 2</td>
</tr>
<tr>
<td>DLBT 2244</td>
<td>Introduction to Orthodontic Procedures 2</td>
</tr>
<tr>
<td>DLBT 2232</td>
<td>Fixed Restorative Techniques III 3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra (or CHEM 1411) † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td><strong>Semester 4</strong></td>
<td></td>
</tr>
<tr>
<td>DLBT 1291</td>
<td>Special Topics in Dental Laboratory Technician 2</td>
</tr>
<tr>
<td>DLBT 2233</td>
<td>Complete Denture Techniques IV 2</td>
</tr>
<tr>
<td>DLBT 2235</td>
<td>Fixed Restorative Techniques IV 2</td>
</tr>
<tr>
<td>DLBT 2242</td>
<td>Dental Ceramics II 2</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>11</strong></td>
</tr>
<tr>
<td><strong>Semester 5</strong></td>
<td></td>
</tr>
<tr>
<td>DLBT 2430</td>
<td>Special Projects in Dental Lab Procedures 4</td>
</tr>
<tr>
<td>DLBT 2446</td>
<td>Practical Laboratory Procedures &quot; 4</td>
</tr>
<tr>
<td></td>
<td>Humanities/Fine Arts Elective † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>11</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>61</strong></td>
</tr>
</tbody>
</table>

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

Notes:
Digital Media Design Technology

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."

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>ARTC 1302 Digital Imaging I †</td>
<td>3</td>
</tr>
<tr>
<td>ARTC 1305 Basic Graphic Design †</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301 Composition I †</td>
<td>3</td>
</tr>
<tr>
<td>PHTC 1311 Fundamentals of Photography</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

| **Semester 2** |              |
| ARTC 1313 Digital Publishing I † | 3 |
| ENGL 2307 Creative Writing (or ENGL 2314) | 3 |
| GRPH 1339 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 |
| **Total Hours** | 12 |

| **Semester 5** |              |
| IMED 2311 Portfolio Development † ** | 3 |
| ARTC 2341 3-D Animation II | 3 |
| IMED 2345 Interactive Digital Media II | 3 |
| IMED 2315 Web Design II (or IMED 2345) Behavioral/Social Science Elective † | 3 |
| **Total Hours** | 15 |
| **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.

Notes:

_____________________________________________________
________________________________________________________
________________________________________________________
_________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
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.”

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>EDTC 1301</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 1341</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>3</td>
</tr>
<tr>
<td>Totals</td>
<td>15</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>CDEC 1359</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 2311</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1302</td>
<td>3</td>
</tr>
<tr>
<td>SPCH</td>
<td>3</td>
</tr>
<tr>
<td>Totals</td>
<td>15</td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>EDTC 1307</td>
<td>3</td>
</tr>
<tr>
<td>TECA 1354</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 2301</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>3</td>
</tr>
<tr>
<td>Area of Emphasis Course #1</td>
<td>3</td>
</tr>
<tr>
<td>Totals Hours</td>
<td>15</td>
</tr>
<tr>
<td>Semester 4</td>
<td></td>
</tr>
<tr>
<td>EDTC 1394</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 2317</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 2302</td>
<td>3</td>
</tr>
<tr>
<td>General Education Elective</td>
<td>3</td>
</tr>
<tr>
<td>Totals Hours</td>
<td>15</td>
</tr>
</tbody>
</table>

AREAS OF EMPHASIS:

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasis in Bilingual Education</td>
<td></td>
</tr>
<tr>
<td>EDTC 1321</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 1325</td>
<td>3</td>
</tr>
<tr>
<td>Emphasis in Early Childhood Education</td>
<td></td>
</tr>
<tr>
<td>CDEC 1321</td>
<td>3</td>
</tr>
<tr>
<td>CDEC 1356</td>
<td>3</td>
</tr>
<tr>
<td>Emphasis in General Education</td>
<td></td>
</tr>
<tr>
<td>EDTC 1393</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 2305</td>
<td>3</td>
</tr>
<tr>
<td>Emphasis in Students with Special Needs</td>
<td></td>
</tr>
<tr>
<td>CDEC 2340</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 1395</td>
<td>3</td>
</tr>
</tbody>
</table>

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

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."

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 1303</td>
<td>Introduction to Game Design and Development 3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra † 3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations † 3</td>
</tr>
<tr>
<td>GAME 1306</td>
<td>Design and Creation of Games 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 1301</td>
<td>Computer Ethics 3</td>
</tr>
<tr>
<td>MATH 1316</td>
<td>Plane Trigonometry 3</td>
</tr>
<tr>
<td>GAME 1304</td>
<td>Level Design 3</td>
</tr>
<tr>
<td>ITSE 1307</td>
<td>Introduction to C++ Programming 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 1343</td>
<td>Graphics and Simulation Programming I 3</td>
</tr>
<tr>
<td>MATH 2318</td>
<td>Linear Algebra 3</td>
</tr>
<tr>
<td>ITSE 2331</td>
<td>Advanced C++ Programming 3</td>
</tr>
<tr>
<td>GAME 1309</td>
<td>Introduction to Animation Programming 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 1349</td>
<td>OpenGL Programming I 3</td>
</tr>
<tr>
<td>GAME 1353</td>
<td>Multi-User Game Programming I 3</td>
</tr>
<tr>
<td>GAME 1359</td>
<td>Game and Simulation Programming II 3</td>
</tr>
<tr>
<td>ITSE 2345</td>
<td>Data Structures 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 2353</td>
<td>OpenGL Programming II 3</td>
</tr>
<tr>
<td>GAME 2303</td>
<td>Artificial Intelligence 3</td>
</tr>
<tr>
<td>GAME 2333</td>
<td>Game and Simulation Programming III 3</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 2359</td>
<td>Game and Simulation Group Project º 3</td>
</tr>
<tr>
<td>Social/Behavioral Science Elective † 3</td>
<td></td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective † 3</td>
<td></td>
</tr>
<tr>
<td>SPCH</td>
<td>Speech Elective † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>72</strong></td>
</tr>
</tbody>
</table>

º This course has been designated as the capstone course.
† High School articulated course.
‡ Course includes 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/Practicum Entry 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

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2401 Anatomy &amp; Physiology I †</td>
<td>4</td>
</tr>
<tr>
<td>ITSC 1309 Integrated Software Applications I †</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1305 Medical Terminology †</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2402 Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>HITT 1301 Health Data Content and Structure</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1253 Legal &amp; Ethical Aspects of Health Information</td>
<td>2</td>
</tr>
<tr>
<td>HITT 1345 Health Care Delivery Systems</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1255 Health Care Statistics</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MDCA 1321 Administrative Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MDCA 1402 Human Disease/Pathophysiology</td>
<td>4</td>
</tr>
<tr>
<td>HPRS 2300 Pharmacology for Health Professions</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1341 Coding &amp; Classification Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HITT 2166 Practicum - Health Info/Medical Records ‡</td>
<td>1</td>
</tr>
<tr>
<td>HITT 2239 Health Information Organization &amp; Supervision</td>
<td>2</td>
</tr>
<tr>
<td>HITT 2343 Quality Assessment &amp; Performance Improvement</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1211 Computers in Health Care</td>
<td>2</td>
</tr>
<tr>
<td>HITT 1342 Ambulatory Coding</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 5</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HITT 2149 RHIT Competency Review</td>
<td>1</td>
</tr>
<tr>
<td>HITT 2335 Coding &amp; Reimbursement Methodologies</td>
<td>3</td>
</tr>
<tr>
<td>HITT 2266 Practicum - Health Info/Medical Records ‡</td>
<td>2</td>
</tr>
<tr>
<td>SPCH X3XX Speech Elective †</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 6</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301 Composition I †</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2301 General Psychology †</td>
<td>3</td>
</tr>
<tr>
<td>Math/Natural Science Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>72</strong></td>
</tr>
</tbody>
</table>

† High school articulated course.
‡ Course with external experience.

This course is a designated capstone course.
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 Print Reading For Machining Trades | 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 ‡ | 4
WLDG 1206 Fundamentals of Gas Tungsten | 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
### 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."

---

### COURSE NAME CREDIT HOURS

#### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CETT 1303</td>
<td>DC Circuits (or IEIR 1302)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra (or MATH 2312)</td>
<td>3</td>
</tr>
<tr>
<td>RBTC 1305</td>
<td>Robotic Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

#### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CETT 1305</td>
<td>AC Circuits (or IEIR 1304)</td>
<td>3</td>
</tr>
<tr>
<td>CETT 1325</td>
<td>Digital Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INTC 1357</td>
<td>AC/DC Motor Controls</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1401</td>
<td>College Physics I (or CHEM 1411)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

#### Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELMT 1301</td>
<td>Programmable Logic Controllers</td>
<td>3</td>
</tr>
<tr>
<td>ELMT 1305</td>
<td>Basic Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>ELMT 2333</td>
<td>Industrial Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

#### Semester 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELMT 2339</td>
<td>Advanced Programmable Logic Controllers</td>
<td>3</td>
</tr>
<tr>
<td>INTC 1341</td>
<td>Principles of Automatic Control</td>
<td>3</td>
</tr>
<tr>
<td>MCHN 1338</td>
<td>Basic Machine Shop I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

#### Semester 5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECT 1307</td>
<td>Convergent Technologies</td>
<td>3</td>
</tr>
<tr>
<td>FCEL 1305</td>
<td>Introduction to Fuel Cell &amp; Alternative/Renewable Energy</td>
<td>3</td>
</tr>
<tr>
<td>SPCH</td>
<td>Speech Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

#### Semester 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELMT 2541</td>
<td>Electromechanical Systems °</td>
<td>3</td>
</tr>
<tr>
<td>ELPT 2231</td>
<td>AC/DC Drives</td>
<td>2</td>
</tr>
<tr>
<td>INMT 1319</td>
<td>Manufacturing Processes</td>
<td>3</td>
</tr>
<tr>
<td>QCTC 1303</td>
<td>Quality Control</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

**Total Hours**: 72

**GRAND TOTAL**: 72

---

° This course has been designated as the capstone course.

† High school articulated course

‡ Course with external experience.

**Notes:**

---

www.tstc.edu | 800.852.8784
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/Practicum Entry 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).

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>B I O L 2 4 0 1 Anatomy &amp; Physiology I *</td>
<td>4</td>
</tr>
<tr>
<td>H I T T 1 3 0 5 Medical Terminology †</td>
<td>3</td>
</tr>
<tr>
<td>M D C A 1 4 1 7 Procedures in a Clinical Setting</td>
<td>4</td>
</tr>
<tr>
<td>H R P O 1 3 1 1 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>B I O L 2 4 0 2 Anatomy &amp; Physiology II ***</td>
<td>4</td>
</tr>
<tr>
<td>H I T T 1 3 0 1 Health Data Content &amp; Structure</td>
<td>3</td>
</tr>
<tr>
<td>M D C A 1 3 4 8 Pharmacology &amp; Administration of Medications</td>
<td>3</td>
</tr>
<tr>
<td>M D C A 1 3 5 2 Medical Assistant Laboratory Procedures</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>13</td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>M D C A 1 3 4 3 Medical Insurance</td>
<td>3</td>
</tr>
<tr>
<td>M D C A 1 4 0 2 Human Disease/Pathophysiology</td>
<td>4</td>
</tr>
<tr>
<td>M D C A 1 3 2 1 Administrative Procedures</td>
<td>3</td>
</tr>
<tr>
<td>P L A B 1 3 2 3 Phlebotomy</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>13</td>
</tr>
<tr>
<td>Semester 4</td>
<td></td>
</tr>
<tr>
<td>E N G L 1 3 0 1 Composition I †</td>
<td>3</td>
</tr>
<tr>
<td>H I T T 1 2 1 1 Computers in Health Care</td>
<td>2</td>
</tr>
<tr>
<td>M D C A 1 2 0 5 Medical Law &amp; Ethics</td>
<td>2</td>
</tr>
<tr>
<td>M D C A 1 4 6 0 Clinical: Medical/Clinical Assistant ‡</td>
<td>4</td>
</tr>
<tr>
<td>P S Y C 2 3 0 1 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
<tr>
<td>Semester 5</td>
<td></td>
</tr>
<tr>
<td>C H E M 1 4 1 1 General Chemistry I (or BIOL 2421) † §</td>
<td>4</td>
</tr>
<tr>
<td>M A T H 1 3 1 4 College Algebra (or MATH 1332) †</td>
<td>3</td>
</tr>
<tr>
<td>M D C A 2 2 6 6 Practicum: Medical/Clinical Assistant ‡</td>
<td>2</td>
</tr>
<tr>
<td>S P C H Speech Elective †</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>69</td>
</tr>
</tbody>
</table>

* This course has been designated as the capstone course.
† High school articulated course
‡ Course with external experience.
§ CHEM 1311 and CHEM 1311 or BIOL 2321 and BIOL 2121 may be taken in place of CHEM 1411

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 Schedule

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

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>CETT 1303</td>
<td>DC Circuits † (or IEIR 1302)</td>
</tr>
<tr>
<td>EECT 1303</td>
<td>Introduction to Telecommunications †</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I †</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra (or MATH 1332) †</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations †</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>Semester 2</strong></td>
<td></td>
</tr>
<tr>
<td>CETT 1305</td>
<td>AC Circuits † (or IEIR 1304)</td>
</tr>
<tr>
<td>CETT 1325</td>
<td>Digital Fundamentals</td>
</tr>
<tr>
<td>CSIR 1303</td>
<td>Telecommunications System Installer</td>
</tr>
<tr>
<td>EECT 1300</td>
<td>Technical Customer Service</td>
</tr>
<tr>
<td></td>
<td>Humanities/Fine Arts Elective</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>Semester 3</strong></td>
<td></td>
</tr>
<tr>
<td>CSIR 1359</td>
<td>Digital Data Communication</td>
</tr>
<tr>
<td>CSIR 1391</td>
<td>Special Topics: Communications System</td>
</tr>
<tr>
<td></td>
<td>Installer &amp; Repairer</td>
</tr>
<tr>
<td>CSIR 2351</td>
<td>Fiber Optic Comm Sys Install. &amp; Rep</td>
</tr>
<tr>
<td>EECT 1307</td>
<td>Convergence Technologies</td>
</tr>
<tr>
<td>EECT 1342</td>
<td>Telecommunications Outside Plant</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>Semester 4</strong></td>
<td></td>
</tr>
<tr>
<td>CSIR 1355</td>
<td>Industry Certifications</td>
</tr>
<tr>
<td>EECT 2337</td>
<td>Wireless Telephony Systems</td>
</tr>
<tr>
<td></td>
<td>Behavioral/Social Science Elective †</td>
</tr>
<tr>
<td>SPCH</td>
<td>Speech Elective †</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td><strong>Semester 5</strong></td>
<td></td>
</tr>
<tr>
<td>CSIR 2350</td>
<td>Telecommunications Maintenance</td>
</tr>
<tr>
<td>EECT 1344</td>
<td>Telecommunications Broadband Systems</td>
</tr>
<tr>
<td>EECT 2380</td>
<td>Telecommunications Switching</td>
</tr>
<tr>
<td>EECT 2435</td>
<td>Telecommunications o**</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTALS</strong></td>
<td><strong>70</strong></td>
</tr>
</tbody>
</table>

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

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 groove 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 refinery 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."

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>WLDG 1430 Introduction to Gas Metal Arc (GMAW) Welding</td>
<td>4</td>
</tr>
<tr>
<td>WLDG 1313 Introduction to Blueprint Reading for Welders</td>
<td>3</td>
</tr>
<tr>
<td>WLDG 1323 Welding Safety, Tools and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>WLDG 1421 Welding Fundamentals †</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td><strong>Semester 2</strong></td>
<td></td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td>WLDG 1434 Introduction to Gas Tungsten Arc (GTAW) Welding</td>
<td>4</td>
</tr>
<tr>
<td>WLDG 1317 Introduction to Layout and Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>WLDG 1457 Intermediate Shielded Metal Arc Welding (SMAW)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td><strong>Semester 3</strong></td>
<td></td>
</tr>
<tr>
<td>SPCH Speech Elective †</td>
<td>3</td>
</tr>
<tr>
<td>WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW)</td>
<td>4</td>
</tr>
<tr>
<td>WLDG 1312 Introduction to Flux Cored Arc Welding (FCAW)</td>
<td>3</td>
</tr>
<tr>
<td>WLDG 1435 Introduction to Pipe Welding</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td><strong>Semester 4</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL 1301 Composition I †</td>
<td>3</td>
</tr>
<tr>
<td>WLDG 1337 Introduction to Welding Metallurgy</td>
<td>3</td>
</tr>
<tr>
<td>WLDG 2453 Advanced Pipe Welding</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1332 Contemporary Mathematics I (or MATH 1314)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td><strong>Semester 5</strong></td>
<td></td>
</tr>
<tr>
<td>NDTE 2311 Preparation for Welding Inspection</td>
<td>3</td>
</tr>
<tr>
<td>WLDG 2413 Intermediate Welding Using Multiple Processes *</td>
<td>4</td>
</tr>
<tr>
<td>WLDG 2435 Adv Layout and Fabrication **</td>
<td>4</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective †</td>
<td>3</td>
</tr>
<tr>
<td>Social Behavioral Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>17</strong></td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td><strong>72</strong></td>
</tr>
</tbody>
</table>

* 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 2435
Wind Energy Technology

In the Wind Energy Technology Program, you'll learn to operate and maintain the systems that make a wind turbine function whether it's an electrical, pneumatic, communications, computer, control or hydraulic system.

Your instructors will emphasize the safety aspects of working in the wind energy industry and you'll be able to practice those principles throughout the program. Examples of courses you'll take include:

You'll also learn all about SCADA (that stands for Supervisory Control and Data Acquisition). It's the utility industry standard computerized system that controls the wind tower network. You'll also find that knowledge of all the systems you'll learn in the Wind Energy Technology Program is important not only to wind energy but also to many other types of companies in the utility industry. That means that as a graduate you will have varied career options.

Many well-known companies are involved in the wind energy field whether they are owner/operators, manufacturers or service providers and these companies are looking for employees with the skills and training you can gain in the Wind Energy Program. Your choices for a career span Texas or if you are interested in travel, the wind energy field offers opportunities throughout the world. A few wind energy companies include Shell Wind, Beyond Petroleum, GE Energy, Siemens Wind Power, Mitsubishi, Vestas, TECO/Westinghouse, DEWIND and more.

Generating a workforce to power the wind energy industry will bring growth for the Wind Energy Technology Program at Texas State Technical College Harlingen at a training center near Corpus Christi.

The Ingleside renewable energy training center for TSTC offers a Certificate of Completion Level I diploma. Renewable energy resources, particularly land and off-shore wind energy, will be the focus for technical education opportunities at the 8,600-square-foot building reserved for TSTC.

In this program, students will learn to:

• Operate and maintain the systems that make a wind turbine function
• Focus on the electrical, pneumatic, communications, computer, control and hydraulic systems of wind turbines.
• Learn about SCADA, the utility industry standard computerized system that controls the wind tower network.

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

<table>
<thead>
<tr>
<th>COURSE NAME CREDIT HOURS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WIND 1302 Wind Safety</td>
<td>3</td>
</tr>
<tr>
<td>CETT 1303 DC Circuits †</td>
<td>3</td>
</tr>
<tr>
<td>POFT 1120 Job Search Skills</td>
<td>1</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301 Composition I †</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1314 College Algebra †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WIND 1300 Introduction to Wind Energy</td>
<td>3</td>
</tr>
<tr>
<td>WIND 2310 Wind Turbine Materials and Electro-Mechanical Equipment</td>
<td>3</td>
</tr>
<tr>
<td>CETT 1305 AC Circuits</td>
<td>3</td>
</tr>
<tr>
<td>CETT 1325 Digital Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td><strong>Humans/Fine Arts Elective †</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WIND 2459 Wind Power Delivery System</td>
<td>4</td>
</tr>
<tr>
<td>ELMT 1305 Basic Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>INTC 1357 AC/DC Motor Control</td>
<td>3</td>
</tr>
<tr>
<td><strong>Behavioral/Social Sciences Elective †</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WIND 1470 Wind Turbine SCADA and Networking</td>
<td>4</td>
</tr>
<tr>
<td>WIND 2455 Wind Turbine Troubleshooting and Repair</td>
<td>4</td>
</tr>
<tr>
<td>CPMT 2250 Industry Certification Preparation</td>
<td>2</td>
</tr>
<tr>
<td>ELMT 1301 Programmable Logic Controllers</td>
<td>3</td>
</tr>
<tr>
<td><strong>Speech Elective †</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 5</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ELMT 2380 Cooperative Education - Electromechanical Technology / Electromechanical Engineering Technology (or ELMT 1391) *</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>16</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>63</strong></td>
</tr>
</tbody>
</table>

* This course has been designated as a capstone course.
† Course Articulated with High School.
* ELMT 2380 or ELMT 1391 may be taken in place of ELMT 2380
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.
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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I 3</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture) 3</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab) 1</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877) 3</td>
</tr>
<tr>
<td>SPCH</td>
<td>Approved Speech Course (SPCH 1311 or SPCH 1315 or SPCH 1318 or SPCH 1321 or SPCH 2333) 3</td>
</tr>
<tr>
<td>EDUC 1100</td>
<td>Frameworks Course (or PSYC 1100) 1</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
</tbody>
</table>

| **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 2412 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 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 2412 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426 or PSYC 2314 or SOCI 1301) 3 |
| SPAN 1311 | Beginning Spanish I (or SPAN 1411) 3 |
| **Total Hours** | 13 |

| **Semester 4** |
| | Humanities Course (ENGL 2312 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 2412 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 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 2412 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426 or PSYC 2314 or SOCI 1301) 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 2412 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 2412 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 2412 or PHYS 1401 or PHYS 1402 or PHYS 2425 or PHYS 2426 or PSYC 2314 or SOCI 1301) 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
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.

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

* SOCI 2319 (Minority Studies) may count either as a Social/Behavioral Science class or a Humanities class, but it cannot count for both groups.
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 1402 or PHYS 2425 or PHYS 2426) | 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 2321 | 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 2471 or COSC 2478 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 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 2342 or BIOL 1406 or BIOL 1407 or COSC 1315 or COSC 1319 or COSC 1420 or COSC 1430 or COSC 2430 or COSC 2471 or COSC 2478 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.
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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2413 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1311 General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1111 General Chemistry I Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENGR 1201 Introduction to Engineering</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 1100 Frameworks Course (or PSYC 1100)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
<tr>
<td><strong>Semester 2</strong></td>
<td></td>
</tr>
<tr>
<td>ENGR 1204 Engineering Graphics</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 1302 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2414 Calculus II †</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2325 University Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2125 University Physics I Lab</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>13</td>
</tr>
<tr>
<td><strong>Semester 3</strong></td>
<td></td>
</tr>
<tr>
<td>ENGR 2304 Programming for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1301 U. S. History I</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 2306 Texas Politics</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
</tbody>
</table>

** 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.
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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture)</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab)</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877)</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1302</td>
<td>Composition II</td>
</tr>
<tr>
<td>HIST 1302</td>
<td>U. S. History II (since 1877)</td>
</tr>
<tr>
<td>BIOL 1307</td>
<td>Biology for Science Majors II</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture)</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab)</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877)</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture)</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab)</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877)</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture)</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab)</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877)</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture)</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab)</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877)</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture)</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab)</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877)</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture)</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab)</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877)</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture)</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab)</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877)</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture)</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab)</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877)</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (Lecture)</td>
</tr>
<tr>
<td>BIOL 1106</td>
<td>Biology for Science Majors I (Lab)</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U. S. History I (to 1877)</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 2413 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2318 Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1301 U. S. History I</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 1100 Frameworks Course (or PSYC 1100)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

| **Semester 2** | |
| MATH 2414 Calculus II | 4 |
| PHYS 2325 University Physics I | 3 |
| PHYS 2125 University Physics I Lab | 1 |
| ENGL 1302 Composition II | 3 |
| HIST 1302 U. S. History II | 3 |
| **Total Hours** | **14** |

| **Semester 3** | |
| GOVT 2301 American Government I | 3 |
| Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306) | 3 |
| Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 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** | **12** |

| **Semester 4** | |
| MATH 2415 Calculus III | 4 |
| PHYS 2326 University Physics II | 3 |
| PHYS 2126 University Physics II Lab | 1 |
| GOVT 2302 American Government II | 3 |
| Modern Language Course | 3 |
| **Total Hours** | **14** |

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

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 discipline, 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)

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 2413  Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301  Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1301  U. S. History I</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 1100  Frameworks Course (or PSYC 1100)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

| **Semester 2** | |
| MATH 2414  Calculus II | 4 |
| PHYS 2325  University Physics I | 3 |
| PHYS 2125  University Physics I Lab | 1 |
| ENGL 1302  Composition II | 3 |
| HIST 1302  U. S. History II | 3 |
| **Total Hours** | **14** |

| **Semester 3** | |
| GOVT 2301  American Government I | 3 |
| Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)PHYS 2426 | 3 |
| Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 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** | **12** |

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>AGAH 1401 Animal Science †</td>
<td>4</td>
</tr>
<tr>
<td>AGMG 1300 Agricultural Policies, Safety &amp; Codes †</td>
<td>3</td>
</tr>
<tr>
<td>AGCR 1341 Forage and Pasture Management</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>13</td>
</tr>
<tr>
<td><strong>Semester 2</strong></td>
<td></td>
</tr>
<tr>
<td>AGAH 1347 Animal Reproduction</td>
<td>3</td>
</tr>
<tr>
<td>AGAH 2413 Principles of Feeds &amp; Feeding</td>
<td>4</td>
</tr>
<tr>
<td>AGCR 1403 Crop Science</td>
<td>4</td>
</tr>
<tr>
<td>POFT 1301 Business English (or ENGL 1301) †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>14</td>
</tr>
<tr>
<td><strong>Semester 3</strong></td>
<td></td>
</tr>
<tr>
<td>AGCR 2305 Entomology</td>
<td>3</td>
</tr>
<tr>
<td>AGCR 2313 Soil &amp; Water Conservation Management</td>
<td>3</td>
</tr>
<tr>
<td>AGMG 1318 Introduction to Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1406 General Biology I †*</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>13</td>
</tr>
</tbody>
</table>

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
*BIOL 1306 and BIOL 1106 may be taken in place of BIOL 1406
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.

Students successfully completing the course(s) of study of the Air Conditioning and Refrigeration Technology program are eligible to take the EPA 410 Refrigerant certification examination administered by the Environmental Protection Agency.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>HART 1310 HVAC Shop Practices and Tools</td>
<td>3</td>
</tr>
<tr>
<td>HART 1401 Basic Electricity for HVAC †</td>
<td>4</td>
</tr>
<tr>
<td>HART 1407 Refrigeration Principles †</td>
<td>4</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td><strong>Semester 2</strong></td>
<td></td>
</tr>
<tr>
<td>HART 1300 HVAC Duct Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>HART 1441 Residential Air Conditioning</td>
<td>4</td>
</tr>
<tr>
<td>MAIR 1449 Refrigerators, Freezers, Window Air Conditioners</td>
<td>4</td>
</tr>
<tr>
<td>POFT 1301 Business English †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td><strong>Semester 3</strong></td>
<td></td>
</tr>
<tr>
<td>DFTG 1313 Drafting for Specific Occupations</td>
<td>3</td>
</tr>
<tr>
<td>HART 1403 Air Conditioning Control Principles</td>
<td>4</td>
</tr>
<tr>
<td>HART 2442 Commercial Refrigeration</td>
<td>4</td>
</tr>
<tr>
<td>TECM 1303 Technical Calculations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Exit Point: REFRIGERATION MECHANIC CERTIFICATE 42

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

Notes:______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

www.tstc.edu | 800.852.8784
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."

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERTIFICATE I</td>
<td></td>
</tr>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>ABDR 1331 Basic Refinishing †</td>
<td>3</td>
</tr>
<tr>
<td>ABDR 1349 Automotive Plastic &amp; Sheet Molded Compound Repair</td>
<td>3</td>
</tr>
<tr>
<td>ABDR 1419 Basic Metal Repair †</td>
<td>4</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>13</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>ABDR 1207 Auto Body Welding</td>
<td>2</td>
</tr>
<tr>
<td>ABDR 1458 Intermediate Refinishing</td>
<td>4</td>
</tr>
<tr>
<td>ABDR 2449 Advanced Refinishing</td>
<td>4</td>
</tr>
<tr>
<td>TECM 1301 Industrial Mathematics (or MATH 1332/MATH1314) †</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>13</td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>ABDR 1311 Vehicle Measurement &amp; Damage Repair Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ABDR 1441 Structural Analysis &amp; Damage Repair I</td>
<td>4</td>
</tr>
<tr>
<td>ABDR 2353 Color Analysis &amp; Paint Matching</td>
<td>3</td>
</tr>
<tr>
<td>ABDR 2451 Specialized Refinishing Techniques</td>
<td>4</td>
</tr>
<tr>
<td>POFT 1301 Business English (or ENGL 1301) †</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>17</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>40</td>
</tr>
</tbody>
</table>

AUTO BODY REPAIR CERTIFICATE

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERTIFICATE II</td>
<td></td>
</tr>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>ABDR 1331 Basic Refinishing †</td>
<td>3</td>
</tr>
<tr>
<td>ABDR 1349 Automotive Plastic &amp; Sheet Molded Compound Repair</td>
<td>3</td>
</tr>
<tr>
<td>ABDR 1419 Basic Metal Repair †</td>
<td>4</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>13</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>ABDR 1207 Auto Body Welding</td>
<td>2</td>
</tr>
<tr>
<td>ABDR 1458 Intermediate Refinishing</td>
<td>4</td>
</tr>
<tr>
<td>ABDR 2449 Advanced Refinishing</td>
<td>4</td>
</tr>
<tr>
<td>TECM 1301 Industrial Mathematics (or MATH 1332/MATH1314) †</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>13</td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>ABDR 1311 Vehicle Measurement &amp; Damage Repair Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ABDR 1441 Structural Analysis &amp; Damage Repair I</td>
<td>4</td>
</tr>
<tr>
<td>ABDR 2353 Color Analysis &amp; Paint Matching</td>
<td>3</td>
</tr>
<tr>
<td>ABDR 2451 Specialized Refinishing Techniques</td>
<td>4</td>
</tr>
<tr>
<td>POFT 1301 Business English (or ENGL 1301) †</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>17</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>57</td>
</tr>
</tbody>
</table>

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 cours
Automotive Technician

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.”

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>AUMT 1201</td>
<td>Introduction &amp; Theory of Automotive Technology † 2</td>
</tr>
<tr>
<td>AUMT 1407</td>
<td>Automotive Electrical Systems † 4</td>
</tr>
<tr>
<td>AUMT 1416</td>
<td>Automotive Suspension &amp; Steering Systems † 4</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations (or PSYC 2301) † 3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>13</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>AUMT 1410</td>
<td>Automotive Brake Systems † 4</td>
</tr>
<tr>
<td>POFT 1301</td>
<td>Business English (or ENGL 1301) † 3</td>
</tr>
<tr>
<td>AUMT 1445</td>
<td>Automotive Heating &amp; Air Conditioning 4</td>
</tr>
<tr>
<td>TECM 1301</td>
<td>Industrial Mathematics (or MATH 1314/MATH 1332) † 3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>14</td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>AUMT 2417</td>
<td>Automotive Engine Performance Analysis I † 4</td>
</tr>
<tr>
<td>AUMT 2421</td>
<td>Automotive Electrical Lighting &amp; Accessories 4</td>
</tr>
<tr>
<td>AUMT 1419</td>
<td>Automotive Engine Repair † 4</td>
</tr>
<tr>
<td>Total Hours</td>
<td>12</td>
</tr>
<tr>
<td>Exit Point: AUTOMOTIVE MECHANIC</td>
<td>39</td>
</tr>
<tr>
<td>Semester 4</td>
<td></td>
</tr>
<tr>
<td>AUMT 2270</td>
<td>Automotive Technician Certification Standards º 2</td>
</tr>
<tr>
<td>AUMT 2413</td>
<td>Automotive Drive Train &amp; Axles 4</td>
</tr>
<tr>
<td>AUMT 2425</td>
<td>Automotive Automatic Transmission &amp; Transaxle 4</td>
</tr>
<tr>
<td>AUMT 2434</td>
<td>Automotive Engine Performance Analysis II 4</td>
</tr>
<tr>
<td>Approved Elective ** †</td>
<td>2</td>
</tr>
<tr>
<td>Total Hours</td>
<td>16</td>
</tr>
<tr>
<td>Exit Point: AUTOMOTIVE TECHNICIAN</td>
<td>55</td>
</tr>
</tbody>
</table>

º This course has been designated as a capstone course
† High school articulated courses
** Approved Electives: AUMT 1380, AUMT 1381, AUMT 2301, AUMT 2680

Notes:_________________________________________________________________________________________________
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: ____________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
Aviation Maintenance Technology

**Airframe Option**

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:

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>AERM 1203 Shop Practices †</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1205 Weight &amp; Balance †</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1208 Federal Aviation Regulations</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1210 Ground Operations †</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1314 Basic Electricity †</td>
<td>3</td>
</tr>
<tr>
<td>AERM 1315 Aviation Science †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td><strong>Semester 2</strong></td>
<td></td>
</tr>
<tr>
<td>AERM 1241 Wood, Fabric and Finishes †</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1243 Instruments &amp; Navigation/ Communication</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1247 Airframe Auxiliary Systems</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1253 Aircraft Welding</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1254 Aircraft Composites †</td>
<td>2</td>
</tr>
<tr>
<td>AERM 1345 Airframe Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>40</strong></td>
</tr>
</tbody>
</table>

* This course has been designated as a capstone experience.
† Courses articulated with high schools
** AERM 2380, AERM 2381 or AERM 2680, Co-op, may be taken as an additional course to enhance the overall objectives of the program.
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 ‡ | 3  
AERM 2447 Aircraft Reciprocating Engine Overhaul | 4  
**Total Hours** | **10**  
**GRAND TOTAL** | **42**

* 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 Science

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.”

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>CNBT 1416 Construction Technology I</td>
<td>4</td>
</tr>
<tr>
<td>CNBT 1300 Residential and Light Commercial Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>OSHT 1405 OSHA Regulations - Construction Industry</td>
<td>4</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

| Semester 2   |              |
| CNBT 1449 Concrete - Commercial and Industrial | 4 |
| CRPT 1315 Conventional Wall Systems | 3 |
| CRPT 2339 Specialty Exterior Finish 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 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:__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>SEMESTER 1</th>
<th>SEMESTER 2</th>
<th>SEMESTER 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACNT 1303 Introduction to Accounting I †</td>
<td>3</td>
<td>ACNT 1311 Introduction to Computerized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1309 Integrated Software Applications I †</td>
<td>3</td>
<td>ITSC 2321 Integrated Software Applications II</td>
<td>3</td>
</tr>
<tr>
<td>POFT 1329 Beginning Keyboarding</td>
<td>3</td>
<td>POFT 1301 Business English</td>
<td>3</td>
</tr>
<tr>
<td>LAWT 1301 Copyright and Ethical Issues</td>
<td>3</td>
<td>POFT 1319 Records and Information Management</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
<td>POFT 1309 Administrative Office Procedures I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>42</strong></td>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

† High School articulated courses.
Computer Networking and Security Technology

**Network Technician**

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 placed 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."

---

### Course Name and Credit Hours

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CPMT 1303 Introduction to Computer Technology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITNW 1325 Fundamentals of Networking Technologies †</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITNW 1354 Implementing &amp; Supporting Servers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITSC 1309 Integrated Software Applications 1 †</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CPMT 1304 Microcomputer System Software †</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITNW 2309 Network Administration for Intranet</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITNW 2321 Networking with TCP/IP E2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TECM 1303 Technical Calculations (or MATH 1314) †</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITSE 1331 Introduction to Visual Basic Programming (or ITNW 2305)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ITNW 2313 Networking Hardware</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITNW 2354 Internet/Intranet Server</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITSY 1342 Information Technology Security E1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>POFT 1301 Business English (or ENGL 1301 †)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

**GRAND TOTAL**  
**42**

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>CPMT 1303</td>
<td>Introduction to Computer Technology † 3</td>
</tr>
<tr>
<td>TECM 1303</td>
<td>Technical Calculations (or MATH 1314) † 3</td>
</tr>
<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking Technology 3</td>
</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications † 3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>CPMT 1304</td>
<td>Microcomputer System Software † 3</td>
</tr>
<tr>
<td>CPMT 1307</td>
<td>Electronic and Computer Skills (or CETT 1307) 3</td>
</tr>
<tr>
<td>CPMT 1311</td>
<td>Introduction to Computer Maintenance † 3</td>
</tr>
<tr>
<td>GAME 1301</td>
<td>Computer Ethics 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>CPMT 1343</td>
<td>Microcomputer Architecture 3</td>
</tr>
<tr>
<td>CPMT 1345</td>
<td>Computer Systems Maintenance 3</td>
</tr>
<tr>
<td>CPMT 1347</td>
<td>Computer System Peripherals 3</td>
</tr>
<tr>
<td>ITSC 2339</td>
<td>Personal Computer Help Desk 3</td>
</tr>
<tr>
<td>ITSE 1331</td>
<td>Introduction to Visual BASIC Programming (or ITSC 1321) 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>

* 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
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).

Notes: ________________________________________________________
___________________________________________________________
___________________________________________________________
___________________________________________________________
___________________________________________________________
___________________________________________________________
___________________________________________________________
___________________________________________________________
___________________________________________________________
___________________________________________________________
___________________________________________________________
___________________________________________________________
___________________________________________________________

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>DNTA 1305 Dental Radiology I</td>
<td>3</td>
</tr>
<tr>
<td>DNTA 1315 Chairside Assisting</td>
<td>3</td>
</tr>
<tr>
<td>DNTA 1113 Emergency Management</td>
<td>1</td>
</tr>
<tr>
<td>DNTA 1251 Dental Office Management</td>
<td>2</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>12</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>DNTA 1245 Preventive Dentistry</td>
<td>2</td>
</tr>
<tr>
<td>DNTA 1353 Dental Assisting Applications</td>
<td>4</td>
</tr>
<tr>
<td>DNTA 1660 Clinical - Dental Assistant †</td>
<td>6</td>
</tr>
<tr>
<td>Total Hours</td>
<td>12</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>24</td>
</tr>
</tbody>
</table>

‘ 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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>DLBT 1201</td>
<td>Dental Anatomy &amp; Tooth Morphology</td>
</tr>
<tr>
<td>DLBT 1209</td>
<td>Removable Partial Denture Techniques I</td>
</tr>
<tr>
<td>DLBT 1213</td>
<td>Complete Denture Techniques I</td>
</tr>
<tr>
<td>DLBT 1217</td>
<td>Fixed Restorative Techniques I</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations †</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

| 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 Calculations † | 3 |
| **Total Hours** | **14** |

| Semester 4  |              |
| DLBT 1291   | Special Topics in Dental Laboratory Technician | 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:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
**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:**
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>EDTC 1301</td>
<td>Educational System 3</td>
</tr>
<tr>
<td>EDTC 1341</td>
<td>Instructional Technology and Computer Applications 3</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>U.S. History I † 3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations† 3</td>
</tr>
<tr>
<td>Speech Elective (suggested SPCH 1315)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 2</strong></td>
<td></td>
</tr>
<tr>
<td>CDEC 1359</td>
<td>Children with Special Needs 3</td>
</tr>
<tr>
<td>EDTC 1311</td>
<td>Instructional Practices and Effective Learning Environment 3</td>
</tr>
<tr>
<td>HIST 1302</td>
<td>U.S. History II † 3</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I † 3</td>
</tr>
<tr>
<td>Social / Behavioral Sciences Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 3</strong></td>
<td></td>
</tr>
<tr>
<td>GOVT 2301</td>
<td>American Government I † 3</td>
</tr>
<tr>
<td>EDTC 2317</td>
<td>Guiding Student Behavior 3</td>
</tr>
<tr>
<td>TECA 1354</td>
<td>Child Growth &amp; Development 3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra * † 3</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 4</strong></td>
<td></td>
</tr>
<tr>
<td>EDTC 1164</td>
<td>Practicum: Teacher Assistant/Aide º ‡ 1</td>
</tr>
<tr>
<td>GOVT 2302</td>
<td>American Government II † 3</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>4</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>49</strong></td>
</tr>
</tbody>
</table>

* This course has been designated as the capstone course
† High school articulated course
‡ Course with external experience
Game and Simulation Programming

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."

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

† High School articulated course.
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."

Notes:

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCHN 1302 Print Reading For Machin 3</td>
<td></td>
</tr>
<tr>
<td>MCHN 1338 Basic Machine Shop I † 3</td>
<td></td>
</tr>
<tr>
<td>MCHN 1343 Machine Shop Mathematics 3</td>
<td></td>
</tr>
<tr>
<td>HRPO 1311 Human Relations † 3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Hours</strong> 12</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCHN 1308 Basic Lathe 3</td>
<td></td>
</tr>
<tr>
<td>MCHN 1313 Basic Milling Operation 3</td>
<td></td>
</tr>
<tr>
<td>MCHN 1320 Precision Tools &amp; Measurement 3</td>
<td></td>
</tr>
<tr>
<td>MCHN 2303 Fundamentals of CNC Machine Controls 3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Hours</strong> 12</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCHN 1305 Metals &amp; Heat Treatment 3</td>
<td></td>
</tr>
<tr>
<td>MCHN 1358 Intermediate Lathe Operations 3</td>
<td></td>
</tr>
<tr>
<td>MCHN 2302 Intermediate Milling Operations 3</td>
<td></td>
</tr>
<tr>
<td>MCHN 2335 Advanced CNC Machining º 3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Hours</strong> 12</td>
<td></td>
</tr>
</tbody>
</table>

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

Toolmaker

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 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."

Admissions Information:

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>MCHN 1302</td>
<td>Print Reading For Machining Trades 3</td>
</tr>
<tr>
<td>MCHN 1338</td>
<td>Basic Machine Shop I † 3</td>
</tr>
<tr>
<td>MCHN 1343</td>
<td>Machine Shop Mathematics 3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>Semester 2</strong></td>
<td></td>
</tr>
<tr>
<td>MCHN 1308</td>
<td>Basic Lathe 3</td>
</tr>
<tr>
<td>MCHN 1313</td>
<td>Basic Milling Operation 3</td>
</tr>
<tr>
<td>MCHN 1320</td>
<td>Precision Tools &amp; Measurement 3</td>
</tr>
<tr>
<td>MCHN 2303</td>
<td>Fundamentals of CNC Machine Controls 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>Semester 3</strong></td>
<td></td>
</tr>
<tr>
<td>MCHN 1305</td>
<td>Metals &amp; Heat Treatment 3</td>
</tr>
<tr>
<td>MCHN 1358</td>
<td>Intermediate Lathe Operations 3</td>
</tr>
<tr>
<td>MCHN 2302</td>
<td>Intermediate Milling Operations 3</td>
</tr>
<tr>
<td>MCHN 2335</td>
<td>Advanced CNC Machining &quot; 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>Semester 4</strong></td>
<td></td>
</tr>
<tr>
<td>MCHN 1335</td>
<td>Grinders, Outside, Internal, Surface 3</td>
</tr>
<tr>
<td>MCHN 2337</td>
<td>Advanced Milling Operation 3</td>
</tr>
<tr>
<td>MCHN 2370</td>
<td>Mold Making/Repair 3</td>
</tr>
<tr>
<td>SPCH</td>
<td>Speech Elective † 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>Semester 5</strong></td>
<td></td>
</tr>
<tr>
<td>MCHN 2372</td>
<td>Tool &amp; Die Making and Repair 3</td>
</tr>
<tr>
<td>MCHN 2447</td>
<td>Specialized Tools &amp; Fixtures º 4</td>
</tr>
<tr>
<td>WLDG 1206</td>
<td>Fundamentals of Gas Tungsten Processes 2</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>9</td>
</tr>
</tbody>
</table>

**Exit Point: TOOLMAKER CERTIFICATE 57**

"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.

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:__________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
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:

COURSE NAME CREDIT HOURS

Semester 1
HITT 1305 Medical Terminology † 3
HITT 1301 Health Data Content and Structure 3
HITT 1211 Computers in Health Care 2
MDCA 1321 Administrative Procedures 3
HRPO 1311 Human Relations † 3
Total Hours 14

Semester 2
BIOL 2301 Anatomy & Physiology I † 3
BIOL 2101 Anatomy & Physiology Laboratory I 1
HITT 1342 Ambulatory Coding 3
MDCA 1343 Medical Insurance 3
MRMT 1307 Medical Transcription I 3
Total Hours 13

Semester 3
MDCA 1402 Human Disease/Pathophysiology 4
MRMT 2333 Medical Transcription II 3
HITT 1166 Practicum - Health Info/Medical Records º‡1 1
Speech Elective 3
Total Hours 11
GRAND TOTAL 38

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

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HITT 1305 Medical Terminology †</td>
<td>3</td>
</tr>
<tr>
<td>NURA 1301 Nurse Aide for Health Care †</td>
<td>3</td>
</tr>
<tr>
<td>TECM 1301 Industrial Mathematics (or MATH 1314) †</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURA 1360 Clinical - Nursing Assistant / Aide and Patient Care Assistant &quot; ‡‡</td>
<td>3</td>
</tr>
<tr>
<td>POFT 1301 Business English (or ENGL 1301) †</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

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

Specialist

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 Calculations (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: Communications System Installer & Repairer 3
CSIR 2351 Fiber Optic Comm. System Installation & Repair 3
EECT 1307 Convergence Technologies 3
EECT 1342 Telecommunications Outside Plant * ** 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
**ECT 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."

Immunizations must be complete. All developmental courses must be complete and all prerequisite courses must be complete. Students must be able to complete a criminal background check with L-1 Enrollment.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNSG 1301</td>
<td>3</td>
</tr>
<tr>
<td>VNSG 1402</td>
<td>4</td>
</tr>
<tr>
<td>VNSG 1304</td>
<td>3</td>
</tr>
<tr>
<td>VNSG 1261</td>
<td>2</td>
</tr>
<tr>
<td>HPR 1204</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 2301</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 2101</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 2302</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 2102</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 2314</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1305</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>3</td>
</tr>
</tbody>
</table>

Prerequisite Courses

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPR 1204 Basic Health Profession Skills</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 2301 Anatomy &amp; Physiology I</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 2101 Anatomy &amp; Physiology I Lab</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 2302 Anatomy &amp; Physiology II</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 2102 Anatomy &amp; Physiology II Lab</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 2314 Lifespan Growth &amp; Development</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301 Composition I (or FDNS 1341)</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1305 Medical Terminology I †</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations †</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 22

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNSG 1301</td>
<td>Pharmacology &amp; Administration of Meds</td>
<td>3</td>
</tr>
<tr>
<td>VNSG 1402</td>
<td>Applied Nursing Skills I</td>
<td>4</td>
</tr>
<tr>
<td>VNSG 1304</td>
<td>Foundations of Nursing</td>
<td>3</td>
</tr>
<tr>
<td>VNSG 1261</td>
<td>Introductory Clinical-Practical Nurse</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Hours: 12

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VNSG 1230</td>
<td>Maternal Neonatal Nursing</td>
<td>2</td>
</tr>
<tr>
<td>VNSG 1329</td>
<td>Medical/Surgical Nursing</td>
<td>3</td>
</tr>
<tr>
<td>VNSG 2413</td>
<td>Applied Nursing Skills II</td>
<td>4</td>
</tr>
<tr>
<td>VNSG 1462</td>
<td>Intermediate Clinical – Practical Nurse</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours: 13

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VNSG 1119</td>
<td>Professional Development</td>
<td>1</td>
</tr>
<tr>
<td>VNSG 1334</td>
<td>Pediatric Nursing</td>
<td>3</td>
</tr>
<tr>
<td>VNSG 1432</td>
<td>Medical Surgical Nursing II</td>
<td>4</td>
</tr>
<tr>
<td>VNSG 2463</td>
<td>Advanced Clinical Practical Nurse</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours: 12

GRAND TOTAL: 59

* This course has been designated as a capstone course.
† Course Articulated with High School.
Welding Technology
Combination Welding

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."

Notes:

COURSE NAME | CREDIT HOURS
--- | ---
**Semester 1**
WLDG 1313 Introduction to Blueprint Reading for Welders | 3
WLDG 1430 Introduction to Gas Metal Arc Welding (GMAW) | 4
WLDG 1323 Welding Safety, Tools and Equipment | 3
WLDG 1421 Introduction to Welding Fundamentals † | 4
**Total Hours** | **14**

**Semester 2**
WLDG 1317 Introduction to Layout and Fabrication | 3
WLDG 1434 Introduction to Gas Tungsten Arc Welding (GTAW) | 4
WLDG 1457 Intermediate Shielded Metal Arc Welding (SMAW) | 4
HRPO 1311 Human Relations † | 3
**Total Hours** | **14**

**Semester 3**
WLDG 1312 Introduction to Flux Cored Welding (FCAW) | 3
WLDG 1435 Introduction to Pipe Welding | 4
WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW) ‡ ** | 4
SPCH Speech Elective † | 3
**Total Hours** | **14**
**GRAND TOTAL** | **42**

† Course Articulated with High School.
‡ This course has been designated as a capstone course.
** WLDG 2480 (Co-op ‡) may be taken in place of the capstone course.
Wind Energy Technology

In the Wind Energy Technology Program, you’ll learn to operate and maintain the systems that make a wind turbine function whether it’s an electrical, pneumatic, communications, computer, control or hydraulic system.

Your instructors will emphasize the safety aspects of working in the wind energy industry and you’ll be able to practice those principles throughout the program. Examples of courses you’ll take include:

- You’ll also learn all about SCADA (that stands for Supervisory Control and Data Acquisition). It’s the utility industry standard computerized system that controls the wind tower network. You’ll also find that knowledge of all the systems you’ll learn in the Wind Energy Technology Program is important not only to wind energy but also to many other types of companies in the utility industry. That means that as a graduate you will have varied career options.

Many well-known companies are involved in the wind energy field whether they are owner/operators, manufacturers or service providers and these companies are looking for employees with the skills and training you can gain in the Wind Energy Program. Your choices for a career span Texas or if you are interested in travel, the wind energy field offers opportunities throughout the world. A few wind energy companies include Shell Wind, Beyond Petroleum, GE Energy, Siemens Wind Power, Mitsubishi, Vestas, TECO/Westinghouse, DEWIND and more.

Generating a workforce to power the wind energy industry will bring growth for the Wind Energy Technology Program at Texas State Technical College Harlingen at a training center near Corpus Christi.

The Ingleside renewable energy training center for TSTC offers a Certificate of Completion Level I diploma. Renewable energy resources, particularly land and off-shore wind energy, will be the focus for technical education opportunities at the 8,600-square-foot building reserved for TSTC.

In this program, students will learn to:
- Operate and maintain the systems that make a wind turbine function
- Focus on the electrical, pneumatic, communications, computer, control and hydraulic systems of wind turbines.
- Learn about SCADA, the utility industry standard computerized system that controls the wind tower network

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIND 1302</td>
<td>Wind Safety</td>
</tr>
<tr>
<td>CETT 1303</td>
<td>DC Circuits †</td>
</tr>
<tr>
<td>POFT 1120</td>
<td>Job Search Skills</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations †</td>
</tr>
<tr>
<td>TECM 1303</td>
<td>Technical Calculations</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIND 1300</td>
<td>Introduction to Wind Energy</td>
</tr>
<tr>
<td>ELMT 1305</td>
<td>Basic Fluid Power</td>
</tr>
<tr>
<td>CETT 1303</td>
<td>AC Circuits</td>
</tr>
<tr>
<td>CETT 1325</td>
<td>Digital Fundamentals</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIND 1302</td>
<td>Wind Safety</td>
</tr>
<tr>
<td>CETT 1303</td>
<td>DC Circuits †</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIND 1300</td>
<td>Introduction to Wind Energy</td>
</tr>
<tr>
<td>WIND 2310</td>
<td>Wind Turbine Materials and Electro-Mechanical Equipment</td>
</tr>
<tr>
<td>ELMT 1305</td>
<td>Basic Fluid Power</td>
</tr>
<tr>
<td>CETT 1305</td>
<td>AC Circuits</td>
</tr>
<tr>
<td>CETT 1325</td>
<td>Digital Fundamentals</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIND 2455</td>
<td>Wind Turbine Troubleshooting and Repair</td>
</tr>
<tr>
<td>WIND 2459</td>
<td>Wind Power Delivery System</td>
</tr>
<tr>
<td>CPMT 2250</td>
<td>Industry Certification Preparation</td>
</tr>
<tr>
<td>ELMT 1301</td>
<td>Programmable Logic Controllers</td>
</tr>
<tr>
<td>INTC 1357</td>
<td>AC/DC Motor Control</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

GRAND TOTAL: CERTIFICATE I 25

GRAND TOTAL: CERTIFICATE II 25

* This course has been designated as a capstone course.
† Course Articulated with High School.
‡ Course with external learning experience
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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>BUSI 1301 Introduction to Business (or MATH 1325)</td>
<td>3</td>
</tr>
<tr>
<td>BCIS 1305 Business Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2301 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

| 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 2322 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** |
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.

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>Fine Arts Course (ARTS 1301 or ARTS 1303 or ARTS 1304 or MUSI 1306)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 1311 Beginning Spanish I (or SPAN 1411)</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1311 Introduction to Speech</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>ENGL 1302 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 2301 American Government I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 1312 Beginning Spanish II (or SPAN 1412)</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1318 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>Humanities Course (ENGL 2321 or ENGL 2326 or ENGL 2331 or SPAN 2323 or SPAN 2324)</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 2302 American Government II</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1301 U. S. History I (to 1877)</td>
<td>3</td>
</tr>
<tr>
<td>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 1402 or PHYS 2425 or PHYS 2426)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
<tr>
<td>Semester 4</td>
<td></td>
</tr>
<tr>
<td>HIST 1302 U. S. History II (since 1877)</td>
<td>3</td>
</tr>
<tr>
<td>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)</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Course (ECON 2301 or PSYC 2301 or PSYC 2314 or SOCI 1301 or SOCI 1306 or SOCI 2319)</td>
<td>3</td>
</tr>
<tr>
<td>SPCH Speech Elective (SPCH 1315 or SPCH 1321)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>12</td>
</tr>
<tr>
<td>Semester 5</td>
<td></td>
</tr>
<tr>
<td>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)</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 2333 Discussion and Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1314 College Algebra</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>9</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>57</td>
</tr>
</tbody>
</table>
Marketable Skills Awards

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.
Air Conditioning & Refrigeration

This Marketable Skills Achievement Award in Air Conditioning & Refrigeration Technology defines specific skills in duct installation or the principles of electricity.

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

Notes:

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIR CONDITIONING DUCT INSTALLER</td>
<td></td>
</tr>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>HART 1300  HVAC Duct Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>HART 1310  HVAC Shop Practices and Tools</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 1313  Drafting for Specific Occupations</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td>AIR CONDITIONING/REFRIGERATION PRINCIPLES OF ELECTRICITY</td>
<td></td>
</tr>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>HART 1310  HVAC Shop Practices and Tools</td>
<td>3</td>
</tr>
<tr>
<td>HART 1401  Basic Electricity for HVAC</td>
<td>3</td>
</tr>
<tr>
<td>HART 1407  Refrigeration Principles</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>
Auto Collision Technology

Auto Body Collision and Finish Preparer

This Marketable Skills Achievement Award in Auto Collision Technology defines specific skills needed to be a preparer.

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABDR 1331</td>
<td>Basic Refinishing</td>
</tr>
<tr>
<td>ABDR 1419</td>
<td>Basic Metal Repair</td>
</tr>
<tr>
<td>ABDR 1349</td>
<td>Automotive Plastic &amp; Sheet Molded Compound Repair</td>
</tr>
<tr>
<td>ABDR 1458</td>
<td>Intermediate Refinishing</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
</tr>
</tbody>
</table>

Notes:

______________________
______________________
______________________
______________________
______________________
Automotive Technology

Automotive Maintenance Mechanic

This Marketable Skills Achievement Award in Automotive Technology defines specific skills needed to be a mechanic in automotive maintenance.

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>AUMT 1410 Automotive Brake Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUMT 1201 Introduction &amp; Theory of Automotive Technology</td>
<td>2</td>
</tr>
<tr>
<td>AUMT 1407 Automotive Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUMT 1416 Automotive Suspension &amp; Steering Systems</td>
<td>4</td>
</tr>
<tr>
<td>Total Hours</td>
<td>14</td>
</tr>
</tbody>
</table>

Notes:
Building Construction Science

Green Construction

This Marketable Skills Achievement Award in Building Construction Science defines specific skills needed for green construction.

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>CNBT 2342 Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CNBT 2315 Construction Specifications and Contracts</td>
<td>3</td>
</tr>
<tr>
<td>CNBT 2317 Green Construction</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Notes:_____________________________________________________
                                                                 _______________________________________
                                                                 _______________________________________
                                                                 _______________________________________
                                                                 _______________________________________
Business Management Technology

This Marketable Skills Achievement Award in Business Management Technology defines specific skills needed for clerical office.

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

Notes:

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLERICAL</strong></td>
<td></td>
</tr>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
</tr>
<tr>
<td>MRKG 1301</td>
<td>Customer Relationship Management</td>
</tr>
<tr>
<td>POFT 1329</td>
<td>Beginning Keyboarding</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>9</td>
</tr>
</tbody>
</table>

| **OFFICE MANAGEMENT** |              |
| Semester 2           |              |
| ACNT 1303            | Introduction to Accounting I | 3 |
| HRPO 2301            | Human Resource Management | 3 |
| MRKG 1301            | Customer Relationship Management | 3 |
| **Total Hours**      | 9            |
Computer Drafting and Design Technology
GIS Specialist

This Marketable Skills Achievement Award in Building Construction Science defines specific skills needed in Geographic Information Systems.

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>GISC 1311 Introduction to Geographic Information Systems (GIS)</td>
<td>3</td>
</tr>
<tr>
<td>GISC 2320 Intermediate Geographic Information Systems (GIS)</td>
<td>3</td>
</tr>
<tr>
<td>GISC 1301 Cartography and Geography in Geographical Information Systems (GIS) and Global Positioning Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>
Computer Networking and Security Technology

Switching and Routing Technician

This Marketable Skills Achievement Award in Computer Networking and Security Technology defines specific skills needed for the support and maintenance of switching and routing.

Admissions Requirements:
Students must complete the admissions requirements as listed under “Admissions Information.”

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITNW 2321 Networking with TCP/IP</td>
<td>3</td>
</tr>
<tr>
<td>ITNW 2313 Networking Hardware</td>
<td>3</td>
</tr>
<tr>
<td>ITSY 2301 Firewalls and Network Security</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Notes:__________________________________________________________
Computer Systems Management Technology

Computer Retail Technician

This Marketable Skills Achievement Award in Computer Systems Management Technology defines specific skills needed for a computer retail technician.

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>CPMT 1303</td>
<td>Introduction to Computer Technology 3</td>
</tr>
<tr>
<td>CPMT 1304</td>
<td>Microcomputer System Software 3</td>
</tr>
<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking Technology 3</td>
</tr>
<tr>
<td></td>
<td>Total Hours 9</td>
</tr>
</tbody>
</table>

Notes:
_____________________________________________________
_____________________________________________________
_____________________________________________________
_____________________________________________________
_____________________________________________________

w w w . t s t c . e d u  | 8 0 0 . 8 5 2 . 8 7 8 4
Digital Media Design Technology
Digital Photography Technician

This Marketable Skills Achievement Award in Digital Media Design Technology defines specific skills needed for digital photography.

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>ARTC 1313 Digital Publishing I</td>
<td>3</td>
</tr>
<tr>
<td>ARTC 1305 Digital Imaging I</td>
<td>3</td>
</tr>
<tr>
<td>PHTC 1311 Fundamentals of Photography</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>9</td>
</tr>
</tbody>
</table>

Notes:_____________________________________________________
_________________________________________________________
_________________________________________________________
_________________________________________________________
_________________________________________________________
_________________________________________________________
Machining Technology

These Marketable Skills Achievement Award in Machining Technology defines specific skills needed for handling or inspecting materials in manufacturing.

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

Notes:
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANUFACTURING MATERIAL HANDLER</td>
<td></td>
</tr>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>MCHN 1302  Print Reading For Machining Trades</td>
<td>3 0 48 3</td>
</tr>
<tr>
<td>MCHN 1338  Basic Machine Shop I</td>
<td>1 6 112 3</td>
</tr>
<tr>
<td>MCHN 1343  Machine Shop Mathematics</td>
<td>3 0 48 3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>7 6 208 9</td>
</tr>
</tbody>
</table>

| MANUFACTURING PARTS INSPECTION (QUALITY CONTROL) |              |
| Semester 1                                        |              |
| MCHN 1302  Print Reading For Machining Trades     | 3 0 48 3     |
| MCHN 1338  Basic Machine Shop I                    | 1 6 112 3    |
| MCHN 1343  Machine Shop Mathematics                | 3 0 48 3     |
| MCHN 1320  Precision Tools & Measurement           | 2 3 80 3     |
| Total Hours                                       | 9 9 288 12   |
Mechatronics Technology
*Mechatronics/Principles of Electricity*

These Marketable Skills Achievement Award in Mechatronics Technology defines specific skills needed for the principles of electricity.

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>CETT 1303 DC Circuits</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td>CETT 1305 AC Circuits</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td>CETT 1325 Digital Fundamentals</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td>INTC 1357 AC/DC Motor Controls</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>8 16 384 12</td>
</tr>
</tbody>
</table>

Notes:_____________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________
Nurse Assistant

These Marketable Skills Achievement Award in Mechatronics Technology defines specific skills needed for the principles of nurse assisting.

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>NURA 1301 Nurse Aid Health Care Organization I</td>
<td>2  4  96  3</td>
</tr>
<tr>
<td>NURA 1360 Clinical Nursing Assistant Aid</td>
<td>0  12  192  3</td>
</tr>
<tr>
<td>HITT 1305 Medical Terminology</td>
<td>2  4  96  3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>4  20  384  9</td>
</tr>
</tbody>
</table>

Notes:

___________________________________________________________

___________________________________________________________

___________________________________________________________

___________________________________________________________

___________________________________________________________

___________________________________________________________
Telecommunications Technology

These Marketable Skills Achievement Award in Machining Technology defines specific skills needed for fiber optic cable installing or the principles of electronics.

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

Notes:

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELECOMMUNICATION FIBER OPTIC CABLE INSTALLER</td>
<td></td>
</tr>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>EECT 1303</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td>CSIR 1303</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td>CSIR 2351</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td>EECT 2351</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>6 12 288 9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELECOMMUNICATION PRINCIPLES OF ELECTRONICS</td>
<td></td>
</tr>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>CETT 1303</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td>CETT 1305</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td>CETT 1325</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td>EECT 1303</td>
<td>2 4 96 3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>8 16 384 12</td>
</tr>
</tbody>
</table>
Welding Technology

These Marketable Skills Achievement Award in Mechatronics Technology defines specific skills needed for an entry level welder and cutter.

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
</tr>
<tr>
<td>WLDG 1430 Introduction to Gas Metal Arc Welding (GMAW)</td>
<td>2 6 128 4</td>
</tr>
<tr>
<td>WLDG 1313 Introduction to Blueprint Reading for Welder</td>
<td>2 2 64 3</td>
</tr>
<tr>
<td>WLDG 1323 Welding Safety, Tools, &amp; Equipment</td>
<td>3 0 48 3</td>
</tr>
<tr>
<td>WLDG 1421 Introduction to Welding Fundamentals</td>
<td>2 6 128 4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>9 14 368 14</td>
</tr>
</tbody>
</table>

Notes:
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
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 (2-4-3)
Study of organs, functions, endocrinology, and common management practices related to reproduction.

AGAH 1401 Animal Science (3-4-4)
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 (3-4-4)
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 (2-2-3)
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 (3-4-4)
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 (2-4-3)
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 (2-4-3)
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 (2-4-3)
Study of the fundamental economic principles and their application to the problems of the industry of agricultural.

AGMG 1344 Agricultural Records Management (2-4-3)
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 (2-4-3)
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 (1-39-6)
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 employer, the student combines classroom learning with work experience. Includes a lecture component.

BIOL 1406, BIOL 1407 (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)
SPCH 1318 (see Speech Electives)
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)
Layout and fabrication of HVAC duct systems using common tools and equipment of the trade.

HART 1310 HVAC Shop Practices and Tools (2-4-3)
Tools and instruments used in the HVAC industry. Includes proper application, use and care of these tools, and tubing and piping practices.

HART 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 HVAC and refrigeration controls; troubleshooting of control components; emphasis on use of wiring diagrams to analyze high and low voltage circuits; a review of Ohm’s law as applied to air conditioning controls and circuits.

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 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.

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.

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.

HRPO 1311 (see Behavioral/Social Sciences)

MAIR 1449 Refrigerators, Freezers, Window 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.

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 (1-3-2)
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)**
In-depth coverage of basic metal principles and working techniques including proper tool usage and product application.

**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: Autobody Collision & Repair Technology/Technician (1-19-3)**
**ABDR 2680  COOP: Autobody Collision & Repair Technology/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.

**ABDR 2431  Structural Analysis & Damage Repair III (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 (2-6-4)**
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.

ENGL 1301 (see English/Communications)
MATH 1314, MATH 1332 (see Math/Natural Sciences)
POFT 1301 (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 1380 COOP: Automobile/Automotive Mechanics Technology/Technician (1-9-3)
AUMT 1381 COOP: Automobile/Automotive Mechanics Technology/Technician (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.

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 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)
Diagnosis and repair of manual/electronic climate control systems; includes the refrigeration cycle and EPA guidelines for refrigerant handling. May be taught manufacturer specific.

AUMT 2270 Automotive Technician Certification Standards (2-0-2)
A study of certification procedures and testing as offered by major automotive manufacturers and National Institute for Automotive Service Excellence. This testing is required by the automotive industry in order to become a certified automotive technician.

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)
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

DEMR 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 propeller design, function, and construction. Skill development in inspection, servicing, and repair of fixed-pitch, constant-speed, and feathering propellers and governing systems. Instruction in removal, balancing, and installation of propellers and fundamentals of safety are also addressed.

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 (2-4-3)
A study of aircraft electrical systems and their requirements including the use of ammeter, voltmeter, and ohmmeter; series and parallel circuits; inductance and capacitance; magnetism; converting alternating current (AC) to direct current (DC); controlling devices; maintenance and servicing of aircraft batteries; and reading and interpreting aircraft electrical diagrams to include solid state devices and logic functions. Fundamentals of electrical safety also addressed.
AERM 1315 Aviation Science (2-4-3)
Fundamentals of mathematics, physics, and 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 (2-4-3)
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 (2-3-3)
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 (2-4-3)
Skill development in fuel metering and induction systems used on reciprocating and turbine engines including fuel metering systems, carburetors, induction systems, heat exchangers, and cooling systems. Fundamentals of safety procedures will also be addressed.

AERM 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 (2-4-3)
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)
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.

AERM 2447 Aircraft Reciprocating Engine Overhaul (2-6-4)
A comprehensive study of reciprocating engine overhaul including measurement and inspection procedures. Instruction in removal and installation, inspections, checks, servicing, and repair of engines. Safety procedures will be addressed.

AERM 2680 COOP: Airframe Mechanic & Aircraft Maintenance (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)
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 organized 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)
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. Prerequisites: READ 0200 or English placement test equivalent.

GOVT 2302 American Government II (3-0-3)
Continuation of 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. Prerequisites: READ 0200 or English placement test equivalent.

HIST 1301 United States History I (3-0-3)
Survey of the political, social, economic, military, cultural, and intellectual history of the United States from the discovery of America to the present. This course provides an integration of social, political and economic history of the United States. Course topics include discovery, the colonial period; the American Revolution; establishment of the nation; political, territorial and socio-economic growth; the sectional controversy, the Civil War, and the reconstruction in the South to 1877. Prerequisites: READ 0200 or English placement test equivalent.

HIST 1302 United States History II (3-0-3)
Survey of the political, social, economic, military, cultural, and intellectual history of the United States from the discovery of America to the present. This course provides an integration of social, political and economic history of the United States. Course topics include the growth of transportation and industry; the agrarian protest and movement toward economic and political reform; the creation of an overseas empire; the United States in two world wars; and the cold War and the role of the United States as a dominant world power. Prerequisites: READ 0200 or English placement test equivalent.

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.

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.

SOCl 1301 Introductory Sociology (3-0-3)
Introduction to the concepts and principles used in the study of group life, social institutions, and social processes.

SOCl 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.
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 1391  Special Topics in Biomedical Engineering-Related Technology/Technician (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.

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)
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.

BIOM 2301  Safety in Health Care Facilities (2-4-3)
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 2315  Physiological Instrument I (2-4-3)
Theory of operation, circuit analysis, and troubleshooting physiological instruments.

BIOM 2319  Fundamentals of X-Ray and Medical Imaging Systems (2-3-3)
Radiation theory and safety hazards, fundamental circuits, and application of X-ray systems including circuit analysis and troubleshooting.

BIOM 2339  Physiological Instruments II (2-4-3)
Graphic display recording devices. Includes defibrillators and multi-purpose diagnostic equipment.

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.

BIOM 2343  General Medical Equipment II (2-4-3)
Theory and principles of operation of a variety of basic electromechanical equipment with emphasis on repair and service of actual medical equipment. Prerequisites: BIOM 2341.
BIOM 2380  COOP - Biomedical Technology (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. Prerequisite: BIOM 2201.

BIOM 2480  COOP: Biomedical Technology (1-24-4)
BIOM 2680  COOP: Biomedical 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. 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 2333 (see Mechatronics Technology)
ENGL 1301 (see English/Communications)
HRPO 1311 (see Behavioral/Social Sciences)
INTC 1357 (see Mechatronics Technology)
ITNW 1325 (see Computer Networking & Security Technology)
MATH (see Math/Natural Sciences)
PSYC 2301 (see Behavioral/Social Sciences)
RBTC 1305 (see Mechatronics Technology)
SPCH (see Speech Electives)

Building Construction Science

CNBT 1300  Residential and Light Commercial Blueprint Reading (2-4-3)
Introductory blueprint reading for residential and light commercial construction.

CNBT 1342  Building Codes and Inspections (2-4-3)
Building codes and standards applicable to building construction and inspection processes.

CNBT 1346  Construction Estimating I (2-4-3)
Fundamentals of estimating materials and labor costs in construction.

CNBT 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 II (2-6-4)
Various techniques for concrete utilization in commercial and industrial construction.

CNBT 2310  Comm/Indust BlprintRead (2-4-3)
Scale commercial/industrial prints with architectural and engineering scales; identify and apply construction blueprint symbols and abbreviations; interpret a set of commercial/industrial construction contract documents including specifications and working drawings regarding mechanical, electrical, civil, structural, and architectural requirements; correlate elevations, sections, details, plan views, schedules, and general notes; and apply commercial/industrial regulatory codes to working drawings and specifications.

CNBT 2315  Construction Specifications and Contracts (2-4-3)
Overview of the legal aspects of written construction documents.

CNBT 2317  Green Building (2-2-3)
Methods and materials used for buildings that conserve energy, water, and human resources.

CNBT 2342  Construction Management I (2-4-3)
Human relations management skills on the job site. Topics include written and oral communications, leadership and motivation, problem solving, and decision making.

CNBT 2380  COOP: Construction Engineering Technology/Technician (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. Prerequisites: CNBT 1549, CRPT 1315, CRPT 1323.
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)
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: CNBT 1549, CRPT 1315, CRPT 1323.

CRPT 1315  Conventional Wall Systems (2-4-3)
Conventional wall systems with emphasis on wood frame construction. Includes identification of components; construction of wall systems; 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 Exterior Finish Systems (2-4-3)
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)
Installation of interior finish systems and components including the placement and installation of doors, trim, 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.

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

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 1301 (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.

Business Management Technology
Office Administration, Office Assistant

ACNT 1303 Introduction to Accounting I (2-3-3)
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.

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

HRPO 2301  Human Resource Management (2-3-3)
Behavioral and legal approaches to the management of human resources in organizations.

ITSC 1309 Integrated Software Applications I (2-3-3)
Introduction to business productivity software suites using word processing, spreadsheets, databases, and/or presentation software.

ITSW 1307  Introduction to Database (2-3-3)
Introduction to database theory and the practical applications of a database.

LAWT 1301 (see Behavioral/Social Sciences)

MATH 1314, MATH 1332 (see Math/Natural Sciences)

MRKG 1301  Customer Relationship Management (2-2-3)
General principles of customer service including skills, knowledge, attitudes, and behaviors.

POFI 2331  Desktop Publishing (2-2-3)
In-depth coverage of desktop publishing terminology, text editing, and use of design principles. Emphasis on layout techniques, graphics, multiple page displays, and business applications.
POFT 1301 (see Related Instruction)

POFT 1309  Administrative/Office Procedures I (2-3-3)
Study of current office procedures, duties, and responsibilities applicable to an office environment.

POFT 1319  Records & Info Management I (2-3-3)
Introduction to basic records information management filing systems including manual and electronic filing.

POFT 1321  Business Math (2-3-3)
Instruction in the fundamentals of business mathematics including analytical and problem-solving skills for critical thinking in business applications.

POFT 1329  Beginning Keyboarding (2-3-3)
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 (2-3-3)
Advanced concepts of project management and office procedures integrating software applications.

SPCH (see Speech Electives)

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)
CTEC 1680  COOP: Chemical Technology 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.

CTEC 1441  Applied Instrumental Analysis I (2-6-4)
Overview of instrumental chemical analysis. Topics include chromatography, spectroscopy, and/or electro analytical chemistry.

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)
1094052276 Study of the general concepts of chemistry with an emphasis on industrial applications. Prerequisite: DMTH 0100 or Math placement test equivalent.

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. Prerequisite: SCIT 1414.

SCIT 1543  Applied Analytical Chemistry I (3-6-5)
Instruction in gravimetric and titrimetric analysis of practical samples by classical and standard methods. Prerequisite: SCIT 1415.

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. Prerequisite: SCIT 1415.

SPCH (see Speech Electives)

Computer Drafting and Design Technology

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 1333  Mechanical Drafting (2-4-3)
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 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 & Presentation (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 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 1309, 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.

DFTG 2350  Geometric Dimensioning & Tolerancing (2-4-3)
Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings. Prerequisites: DFTG 1333, DFTG 2332.
DFTG 2380  COOP: Drafting & Design Technology, General (1-19-3)
DFTG 2680  COOP: Drafting & Design 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. Prerequisite: 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)
Explain basic concepts of using GIS in mapping the earth in spatial terms and populating the GIS's system to access data; create and access data in the GIS's system using an appropriate software package; and develop and print maps with industry standard legends. Operate industry standard GIS packages on a personal computer; capture positional and attribute information with correct and accurate geographic referencing; convert geographic information among several coordinate systems; acquire GIS's system information from databases, existing maps, and the Internet; and annotate output for finished maps, documents, and reports.

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.

HRPO 1311 (see Behavioral/Social Sciences)

MATH (see Math/Natural Sciences)

PSYC 2301 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

SRVY 2348  Plane Surveying (2-4-3)
Surveying instruments, basic measuring procedures, vertical and horizontal control, and traverse closure.

Computer Networking and Security Technology

CPMT 1303  (See Computer Systems Management Technology)

CPMT 1304  (See Computer Systems Management Technology).

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 1354  Implementing & Supporting Servers (2-4-3)
Development of skills necessary to implement, administer, and troubleshoot information systems that incorporate servers in a networked computing environment.

ITNW 1380  COOP - Computer Systems Network (1-19-3)
ITNW 1680  COOP - Computer Systems Network (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.

ITNW 1392  Special Topics in Computer Systems and Telecommunications (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.

ITNW 2309  Network Administration for Intranet (2-4-3)
Perform the role of network administrator or system manager in an Intranet network.

ITNW 2313  Network Hardware (2-4-3)
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)
Set up, configure, use, and support Transmission Control Protocol/Internet Protocol (TCP/IP) on networking operating systems.

ITNW 2350  Enterprise Network (2-4-3)
A case study in Convergence Technologies requiring a network engineer to study a problem and design a network solution for an enterprise network.
ITNW 2354  Internet/Intranet Server (2-4-3)
Designing, installing, configuring, maintaining, and managing an Internet server.

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.

ITSC 1309  (see Business Management Technology)

ITSC 2380 COOP - Computer & Information Sciences (1-19-3)
ITSC 2680  COOP - Computer & Information Sciences (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.

ITSE 1331  (See Game & Simulation Programming)

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. Prerequisite: ITNW 2321, ITSY 1342

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. Prerequisite: ITSY 1342.

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. Prerequisite: ITSY 2342

MATH 1314  (see Math/Natural Sciences)

POFT 1301  (see Related Instruction)

SPCH  (see Speech Electives)

TECM 1303  (see Related Instruction)

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)
Modern electronic construction techniques including using common hand tools in disassembly, repair, and re-assembly of electronics and computer components. Prerequisite: 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)
Computer characteristics and subsystem operations, timing, control circuits, and internal input/output controls. Prerequisite: 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 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).

ENGL 1301 (see English/Communications)

GAME 1301 (see See Game & Simulation Programming)

HRPO 1311 (see Behavioral/Social Sciences)

ITNW 1325 (see Computer Networking & Security Technology)

ITNW 2321 (see Computer Networking & Security Technology)

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 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. Prerequisite: ITSC 1305.

ITSC 1309 (see Business Management Technology)

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 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.

ITSE 1331  (See Game & Simulation Programming)

ITSE 1350  Systems 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.

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)
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 ethnic/regional 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)

RSTO 1201  Beverage Service 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, legislation, 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)
Introduces the principles, concepts, and systems of professional table service. Topics include dining room organization, scheduling, and management of food service personnel. Prerequisites: CHEF 2301.

RSTO 1313  Hospitality Supervision (2-2-3)
Fundamentals of recruiting, selection, and training of food service and hospitality personnel. Topics include job descriptions, schedules, work improvement, motivation, 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. Prerequisite: CHEF 2301, RSTO 1221, RSTO 2301.

SOCI 1301 (see Behavioral/Social Sciences)

Dental Assistant

DNTA 1113  Emergency Management (1-1-1)
Methods and equipment in life-saving and other emergencies. Addresses maintenance of emergency kit as well as taking and recording vital signs.

DNTA 1245  Preventive Dentistry (1-3-2)
The study and prevention of dental diseases and community dental health. Prerequisites: DNTA 1305, DNTA 1315.

DNTA 1251  Dental Office Management (1-3-2)
The study of 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, recare management (manage recall systems), federal and state guidelines regarding health care providers, and operating basic business equipment. Prerequisite: DNTA 1353

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. Specific safety and standard precautions for the classroom and lab settings will be practiced.

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 1353  Dental Assisting Applications (2-4-3)
Comprehensive procedures and applications for the general and specialty areas of dentistry. Prerequisite: DNTA 1315.

DNTA 1660  Clinical Dental Assistant (0-21-6)
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)

Dental Hygiene

BIOL (see Math/Natural Sciences)

CHEM 1411 (see Math/Natural Sciences)

DHYG 1123  Dental Hygiene Practice (1-0-1)
Practice settings for the dental hygienist including 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. Prerequisite: DHYG 2360.

DHYG 1207  General & Dental Nutrition (2-0-2)
General nutrition and nutritional biochemistry with emphasis on the effects of nutrition, dental health, diet, and application of counseling strategies. Prerequisite: 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)
The principles and concepts of community public health and dental health education emphasizing community assessment, educational planning, implementation, and evaluation including methods and materials used in teaching dental health education in various community settings.

DHYG 1227  Preventive Dental Hygiene Care (1-3-2)
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, contraindications, and oral manifestations with emphasis on dental applications. Prerequisites: DHYG 1331.

DHYG 1239  General & Oral Pathology (1-2-2)
Study of disturbances in human body development, diseases of the body, and disease prevention measures. Emphasis on the oral cavity and associated structures.

DHYG 1260  Clinical-Dental Hygiene/Hygienist I (0-10-2)
DHYG 1261  Clinical-Dental Hygiene/Hygienist II (0-11-3)
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 (2-3-3)

DHYG 1319  Dental Materials (2-3-3)
Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry. Prerequisite: 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 2301  Contemporary Dental Hygiene Care I (2-2-3)
1094050476 Dental hygiene care for the medically or dentally compromised patient with emphasis on supplemental instrumentation techniques.

DHYG 2360  Clinical- Dental Hygiene/Hygienist III (0-14-3)
DHYG 2361  Clinical- Dental Hygiene/Hygienist IV (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. Prerequisite: DHYG 2360.

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

PSOC 1301 (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 maxilla, 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 prostheses.

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 landmarks, 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 1291  Special Topics in Dental Laboratory Technician (1-4-2)
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.

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 (1-3-2)
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 (1-3-2)
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 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-rigid connectors. Prerequisites: DLBT 2321.

DLBT 2241  Dental Ceramics I (1-3-2)
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 (1-3-2)
Introduction to orthodontic dental laboratory procedures. Emphasis on wire bending, soldering, and removable acrylic resin appliances.

DLBT 2321  Fixed Restorative Techniques III (2-3-3)
Continued refinements in crown and bridge fabrication for multiple-unit fixed-partial dentures with metal pontics. Experience in the fabrication and repair of single and multiple-unit fixed-partial dentures. Prerequisite: 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

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 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.

DMTH 0801 Mathematics Lab (0-1-1)
DMTH 0802 Mathematics Lab (0-4-2)
DMTH 0803 Mathematics Lab (2-2-3)
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.

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 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.

READ 0801 Reading Lab (0-2-1)
READ 0802 Reading Lab (0-4-2)
READ 0803 Reading Lab (2-2-3)
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.

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. Prerequisite: Grade of C or better in WRIT 0050 or departmental placement test equivalent.

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 (2-2-3)
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.

WRIT 0801 Writing Lab (0-2-1)
WRIT 0802 Writing Lab (0-4-2)
WRIT 0803 Writing Lab (2-2-3)
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.
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.

ARTC 1305 Basic Graphic Design (2-4-3)
Graphic 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.

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)

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)
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: ARTC 2313, ARTV 1343, ARTV 1351, IMED 1316, IMED 1345.

HRPO 1311 (see Behavioral/Social Sciences)

IMED 1316 Web Page Design I (2-4-3)
Instruction in web page design and related graphic design issues including mark-up languages, web sites, and browsers.

IMED 1345 Interactive Digital Media I (2-4-3)
Exploration of the use of graphics and sound to create 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 mark-up language advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing web sites according to accessibility standards, cultural appearance, and legal issues. Prerequisites: IMED 1316, IMED 1345.

IMED 2345 Interactive Digital Media II (2-4-3)
Instruction in the use of scripting languages to create interactive digital media applications.

MATH 1314, MATH 1332 (see Math/Natural Sciences)

www.tstc.edu | 800.852.8784
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.

POFT 1301 (see Related Instruction)

TECM 1303 (see Related Instruction)

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)
Further development in the 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 2307 Creative Writing (3-0-3)
Practical experience in the techniques of imaginative writing. May include fiction, nonfiction, poetry, or drama. Prerequisites: ENGL 1301, READ 200 or equivalent or as determined by English placement test.

ENGL 2314 Technical & Business Writing I (3-0-3)
Principles, techniques, and skills needed for college-level scientific, technical, or business writing. Standard technical documents and the internal report are emphasized. Prerequisite: Grade of C or better in ENGL 1301.

ENGL 2321 British Literature (3-0-3)
Critical reading, discussion, and written analysis of 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)
Critical reading, discussion, and written analysis of 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)
Critical reading, discussion, and written analysis of selected significant works of world literature in translation. May include study of movements, schools, or periods. Prerequisite: Grade of "C" or better in ENGL 1301.

Education and Training

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 Children with Special Needs (2-4-3)
A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, intervention strategies, available resources, referral processes, the advocacy role, and legislative issues.

CDEC 2340 Instructional Techniques for Children with Special Needs (2-4-3)
Exploration of development and implementation of curriculum for children with special needs.

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 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)
General principles of reading instruction. Topics include emergent literacy, reading readiness, reading instruction, literacy-based environments, and a review of varied materials and techniques for teaching reading.

EDTC 1311 Instructional Practice/Effective Learning Environment (2-4-3)
General principles for selecting developmentally appropriate strategies in core curriculum areas and planning the classroom environment. Topics address methods for supporting instructional planning and implementation of educational goals. Exploration of teamwork skills and methods for providing instructional accommodations and modifications.

EDTC 1321 Bilingual Education (2-2-3)
An overview of bilingual education. Topics include awareness of cultural diversity, assessment strategies, teaching techniques, instructional activity development, and historical/philosophical concepts of bilingual/bicultural education.
EDTC 1325 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 and Computer Apps (2-2-3)
Examination of specialized educational technology. Topics include the integration of educational computer terminology, system operations, software, and multimedia in the contemporary classroom environment.

EDTC 1364 Practicum-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: Writing Problems (2-4-3)
An in-depth coverage of writing difficulties at the elementary level. Emphasis will be on the foundations and theories of writing at the elementary level, required curriculum to be taught, instructional techniques to utilize with students, models of teaching students, assessment techniques, and lesson planning strategies useful in working with the elementary student.

EDTC 1394 Special Topics: Math and Science in the Elementary School (3-0-3)
This course covers practical approaches for introducing math and science concepts in an elementary classroom lab environment with an emphasis on problem solving, inquiry, and critical thinking. Topics include basic math and science concepts and properties, diagnostic testing, pedagogy, and recognizing and recommending corrective teaching strategies.

EDTC 1395 Special Topics: Behavior Management for Students with Special Needs (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 2305 Reading Problems (2-4-3)
In-depth coverage of reading difficulties. Emphasis on the theories, strategies, recognition, and remediation of reading problems. Topics include assessment, direct instruction, and motivational/interactive literacy activities.

EDTC 2311 Instructional Practices and Effective Learning Environments (2-4-3)
General principles for selecting developmentally appropriate strategies in core curriculum areas, planning the classroom environment, and instructional accommodations and modifications. Topics address methods for supporting instructional planning and implementation of educational goals and objectives. Also examines cooperative learning strategies.

EDTC 2317 Guiding Student Behavior (2-4-3)
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)

MATH 1314 (see Math/Natural Sciences)

SPCH (see Speech Electives)

TECA 1354 Child Growth & Development (3-0-3)
A study of the physical, emotional, social, and cognitive factors impacting growth and development of children through adolescence.

Game & Simulation Programming

CPMT 1303 (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 (2-4-3)
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 1306  Design and Creation of Games (2-4-3)
Introduction to game and simulation development. Includes analysis of existing applications and creation of a game using an existing game engine. In-depth coverage of the essential elements of game design. Also covers an overview of cultural history of electronic games, survey of the major innovators, and examination of the trends and taboos that motivate game design.

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. 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 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 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.

HRPO 1311 (see Behavioral/Social Sciences)

ITSE 1307  Introduction to C++ Programming (2-4-3)
Introduction to computer programming using C++. Emphasis on the fundamentals of object-oriented development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files.

ITSE 1331  Intro to Visual Basic Programming (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 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.

MATH (see Math/Natural Sciences)

POFT 1301 (see Related Instruction)

SPCH (see Speech Electives)

TECM 1303 (see Related Instruction)

QCTC 1301 (see Mechatronics Technology)
Health Information Technology

BIOL 2401, BIOL 2402 (see Math/Natural Sciences)

ENGL 1301 (see English/Communications)

HITT 1211 (see Medical Information Specialist/Transcriptionist)

HITT 1253 Legal & Ethical Aspects of Health Info (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.

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 2149 RHIT Competency Review (0-3-1)
Review Health Information Technology (HIT) competencies, skills, and knowledge.

HITT 2166 Practicum - Health Information/Medical Records (0-8-1)
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

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)
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. Prerequisites: 5th semester standing.

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 Management Technology)

MDCA 1321 (see Medical Assistant)

MDCA 1402 (see Medical Information Specialist/Transcriptionist)

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)
Examination of painting, sculpture, architecture, and other arts from prehistoric times to the 14th century.
ARTS 1304 Art History II (3-0-3)
Examination of painting, sculpture, architecture, and other arts from the Middle Ages to the present day.

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. Video and audio recordings and live performances help illustrate the influence of music.

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, MATH 1316 (see Math/Natural Sciences)

MCHN 1302 Print Reading For Machining Trades (3-0-3)
A study of blueprints for machining trades with emphasis on machine drawings.

MCHN 1305 Metals and Heat Treatment (2-3-3)
Designed for students going into the workforce as manual machinists, tool designers, or heat treat operators. Topics include properties of metals and heat treatment of metals. Prerequisites: MCHN 1308, MCHN 1313.

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, nomenclature, 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 outside diameter, internal diameter, and surface grinders. Emphasis on identification, selection, and replacement of grinding wheels. Related topics include math, blueprint reading, and safety. Prerequisite: Fourth semester standing.

MCHN 1338 Basic Machine Shop I (1-6-3)
An introductory course that assists the student in understanding the machinist occupation in industry. The student begins by using basic machine tools such as the lathe, milling machine, drill press, power saw, and bench grinder. Machine terminology, theory, math, part layout, and bench work using common measuring tools is included. Emphasis is placed on shop safety, housekeeping, and preventative maintenance.

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)
Continuation of Basic Lathe Operations with emphasis on continued proficiency in lathe operations. Identification and operation of lathe machine tools, including basic tapered form turning and basic threading operations. Prerequisite: MCHN 1308.

MCHN 2302 Intermediate Milling Operation (1-6-3)
A continuation of Basic Milling Operations with emphasis on continued proficiency in mill operation. Identification and operation of milling machines and support tooling including keyseat cutter, staggertooth cutters, rotary table and dividing heads. Prerequisite: MCHN 1313.

MCHN 2303 Fundamentals of CNC Machine Controls (1-6-3)
An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines. Prerequisites: MCHN 1317 or MCHN 1302, MCHN 1338, MCHN 1343.

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  Advanced 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 machine theory. Prerequisite: Fourth semester standing.

MCHN 2370  Mold Making/Repair (1-8-3)
This course is designed to give the student basic concepts of common mold making practices. Different types of molds used in industry and the associated terminology with be stressed. Standard mold bases and mold components are covered. The student will rebuild mold sections by manufacturing and installing core and cavity inserts, and rebuilding ejector systems by modifying or installing new ejector pins where necessary. The student will qualify the reconstructed mold base assembly. Prerequisite Fourth semester standing.

MCHN 2372  Tool & Die Making and Repair (1-8-3)
This course is designed to give the student the basic concepts involved in tool and die construction that will include bending, blanking, piercing, guiding, stripping, and die stops. Compound, progressive and inverted dies will be covered. The student will repair or manufacture precision machined die parts that perform trimming, notching, piercing, blanking, piloting, or forming, and install them in a die. The student will set up a repaired die in a punch press and sample. Prerequisite: Fourth semester standing.

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 1335, MCHN 2337.

SPCH (see Speech Electives)

WLDG 1206 (see Welding Technology)

Math/Natural Sciences

BIOL 1106  Biology for Science Majors I Lab (0-3-1)
BIOL 1306  Biology for Science Majors I (3-0-3)
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. Course is designed for both science and non-science majors.

BIOL 1108  Biology for Non-Science Majors I Lab (0-3-1)
BIOL 1308  Biology for Non-Science Majors I (3-0-3)
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. Course is designed for both science and non-science majors.

BIOL 1109  Biology for Non-Science Majors II Lab (0-3-1)
BIOL 1309  Biology for Non-Science Majors II (3-0-3)
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. Course is designed for both science and non-science majors.

BIOL 1411  General Botany (3-3-4)
Study of the structure and function of plant cells, tissues, and organs. Includes an evolutionary survey and life histories of the following representative groups: algae, fungi, mosses, liverworts, ferns, and seed producing organisms. Plant reproductive and functional interactions with their environment and with humans. Selected laboratory exercises.

BIOL 1413  General Zoology (3-3-4)
Study of the principles of taxonomy, molecular biology, and ecology as they relate to animal form and function, diversity, behavior, and evolution.

BIOL 2101  Anatomy & Physiology I Lab (0-3-1)
BIOL 2301  Anatomy & Physiology I (3-0-3)
Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized.

BIOL 2102  Anatomy & Physiology II Lab (0-3-1)
BIOL 2302  Anatomy & Physiology II (3-0-3)
Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized.

BIOL 2121  Microbiology for Science Majors Lab (0-3-1)
BIOL 2321  Microbiology for Science Majors (3-0-3)
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.
MATH 1316  Plane Trigonometry (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 1324  Mathematics for Business & Social Sciences I (3-0-3)
Finite dimensional vector spaces, linear transformations and matrices, quadratic forms, and eigen values and eigen vectors. Prerequisite: MATH 1314.

MATH 2305  Discrete Mathematics (3-0-3)
An introduction to mathematical logic, mathematical induction, relations and functions, basic counting techniques, graphs and trees, and applications to computing devices. The study of proof techniques, asymptotic notations for growth function analysis, common functions found in algorithm analysis, manipulating and bounding summations, different methods to solve recurrences including alterations and generating functions, combinatorial analysis, number theory, binomial coefficients, and sets. Prerequisite: MATH 2413

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)
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 1314  College Algebra (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 1315  Mathematics for Business & Social Sciences II (3-0-3)
Sets, probability, functions, inequalities, linear programming, and differential and integral calculus with applications.

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 1342  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 1348  Analytic Geometry (3-0-3)
Lines, circles, and other conic sections; transformation of coordinates; polar coordinates; and parametric equations. Prerequisite: Math 1316

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 2305  Discrete Mathematics (3-0-3)
An introduction to mathematical logic, mathematical induction, relations and functions, basic counting techniques, graphs and trees, and applications to computing devices. The study of proof techniques, asymptotic notations for growth function analysis, common functions found in algorithm analysis, manipulating and bounding summations, different methods to solve recurrences including alterations and generating functions, combinatorial analysis, number theory, binomial coefficients, and sets. Prerequisite: MATH 2413

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 (3-2-4)
Functions, limits, continuity, differentiation, integration, applications, sequences and series, vector analysis, partial differentiation, and multiple integration. This course may include topics in analytic geometry. Prerequisite: MATH 1316 or MATH 2312.

MATH 2414 Calculus II (3-2-4)
Derivatives and integration of transcendental functions, integration methods and applications, infinite sequences and series. Prerequisite: MATH 2413.

MATH 2415 Calculus III (3-2-4)
The study of vectors, partial differentiation, and multiple integrals. Prerequisite: Math 2414.

PHYS 1401 College Physics I (3-3-4)
Algebra-level physics sequence, with laboratories, that includes study of mechanics, heat, waves, electricity and magnetism, and modern physics with emphasis on fundamental concepts, problem solving, notation and units. Prerequisite: MATH 1314.

PHYS 1402 College Physics II (3-3-4)
Algebra-level physics sequence, with laboratories, that includes study of mechanics, heat, waves, electricity and magnetism, and modern physics with emphasis on fundamental concepts, problem solving, notation and units. Prerequisite: PHYS 1401.

PHYS 1415 Physical Science I (3-1-4)
Course designed for non-science majors that surveys topics from physics, chemistry, geology, astronomy, and meteorology. May or may not include a lab.

PHYS 1417 Physical Science II (3-1-4)
Course designed for non-science majors that surveys topics from physics, chemistry, geology, astronomy, and meteorology. May or may not include a lab.

PHYS 2425 University Physics I (3-3-4)
Calculus-level physics sequence, with laboratories, that includes study of mechanics, heat, thermo-dynamics, vibrations, waves, electricity and magnetism. Prerequisite: MATH 2413.

PHYS 2426 University Physics II (3-3-4)
Calculus-level physics sequence, with laboratories, that includes study of mechanics, heat, thermo-dynamics, vibrations, waves, electricity, electro-magnetic theory and applications, electromagnetic waves, 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, Kirchhoff’s laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements.

CETT 1305 AC Circuits (2-4-3)
A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Prerequisite: CETT 1303 or IEIR 1302.

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. Prerequisite: CETT 1303.

EECT 1307 (see Telecommunications Technology)

ELMT 1301 Programmable Logic Controllers (2-4-3)
An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment. Prerequisites: INTC 1357.

ELMT 1305 Basic Fluid Power (2-4-3)
Basic fluid power course covering vacuum systems, pneumatic and hydraulic systems, fluid power symbols, operating theory, components, and basic electrical and manual controls.

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. Prerequisite: CETT 1305, CETT 1325.
ELMT 2339 Advanced Programmable Logic Controllers (2-4-3)
Advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting ladder logic, and interfacing to equipment. Prerequisite: ELMT 1301.

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.

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.

HRPO 1311 (see Behavioral/Social Sciences)

IEIR 1302 Introduction to Direct Current Circuits (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. Prerequisite: IEIR 1302.

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 1341 Principles of Automatic Control (2-4-3)
A study of the theory of basic measurements, automatic control systems and design, closed loop systems, recorders, controllers, feedback, control modes and control configurations. Prerequisite: ELMT 2333.

INTC 1357 AC/DC Motor Controls (2-4-3)
A study of electric motors and motor control devices common to a modern industrial environment. A presentation of motor characteristics with emphasis on starting, speed control, and stopping systems.

PSYS 1401 (see Math/Natural Sciences)

QCTC 1303 Quality Control (2-4-3)
Quality control principles and applications.

RBTC 1305 Robotic Fundamentals (2-4-3)
An introduction to flexible automation. Topics include installation, repair, maintenance, and development of flexible robotic manufacturing systems.

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 and risk management as they relate to the practice of medicine and fiduciary responsibilities.

MDCA 1321 Administrative Procedures (2-4-3)
Medical office procedures including appointment scheduling, medical records creation and maintenance, interpersonal communications, financial processes, coding, billing, collecting, third party reimbursement, credit arrangements, and computer use in the medical office.

MDCA 1343 (see Medical Information Specialist/Transcriptionist)

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)
Procedures depicted in the Current Clinical Laboratory Improvement Act (CLIA). Includes blood collection, specimen handling, basic urinalysis, identification of normal ranges, quality assurance, and quality control. May include electrocardiography.
MDCA 1402 (see Medical Information Specialist/Transcriptionist)

MDCA 1417  Procedures in a Clinical Setting (2-6-4)
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 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.

MDCA 2266  Practicum - Medical/Clinical Assistant (0-14-2)
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

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.

POFT 1301 (see Related Instruction)

PSYC 2301 (see Behavioral/Social Sciences)

SPCH (see Speech Electives)

Medical Information Specialist/Transcriptionist

BIOL 2301, BIOL 2101 (see Math/Natural Sciences)

HITT 1166  Practicum-Health Information /Medical Records (0-8-1)
Practical, general workplace training supported by an 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 the 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 1321 (see Medical Assistant)

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 and prevention of insurance fraud. 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. Prerequisite: BIOL 2401.

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.

Nurse Assistant

HITT 1305 (see Medical Information Specialist/Transcriptionist)

HRPO 1311 (see Behavioral/Social Sciences)

NURA 1301  Nurse Aide for Health Care 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 (0-12-3)
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. 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)

BMGT 1327 Principles of Management (2-2-3)
Concepts, terminology, principles, theories, and issues in the field of management.

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.

BMGT 2309 Leadership (2-3-3)
Concepts of leadership and its relationship to management. Preparers the student with leadership and communication skills needed to motivate and identify leadership styles.

POFT 1301 Business English (2-3-3)
Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business.

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.

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)
Specific mathematical calculations required by business and industry. Includes whole numbers, fractions, mixed numbers, decimals, percents, ratios, and proportions. Also covers converting to different units of measure (standard and/or metric).

Spanish

SPAN 1311 Beginning Spanish I (3-0-3)
Fundamental skills in listening comprehension, speaking, reading and writing, including basic vocabulary, grammatical structures and culture. This course is for students who already have a significant Spanish vocabulary. (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)
This course is a continuation of Span 1311 covering fundamental skills in listening, comprehension, speaking, reading and writing. This course includes basic 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, including 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)
This course is a continuation of Span 1411 covering fundamental skills in listening, comprehension, speaking, reading and writing. This course 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. This course emphasizes conversation, vocabulary acquiring, reading, and composition, and includes discussion of the people, events, history, and culture of selected countries. Prerequisite: SPAN 1312 or SPAN 1412 or equivalent.

SPAN 2323 Introduction to Latin American Literature (3-0-3)
This course introduces the literature, including the prose, poetry and drama, of Latin American. Prerequisite: SPAN 2311 or SPAN 1312 with permission of the instructor.
SPAN 2324 Spanish Culture (3-0-3)
Representative readings of the literature, art, history and geography that have helped shape the Hispanic culture of the United States. 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 speech communication behavior in interpersonal, small group, and public communication situations.

SPCH 1315 Public Speaking (3-0-3)
This course provides for 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, MATH 1332 (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, technological sciences, and patient care concepts. Prerequisite: BIOL 2401.

SRGT 1409 Fundamentals of Perioperative Concepts and Techniques (3-2-4)
In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field. Prerequisite: 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 Procedures II (3-3-4)
Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the thoracic, peripheral vascular, plastic/reconstructive, EENT, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisite: SRGT 1441.

SRGT 1460 Clinical I: Surgical Technology/Technologist (0-16-4)
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: BIOL 2401.

SRGT 1461 Clinical II: Surgical Tech/Technologist (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. Prerequisite: SRGT 1460.

SRGT 2462 Clinical III: Surgical Tech/Technologist (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. Prerequisite: 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 Certifications (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.

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 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.

ECT 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.

ECT 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.

ECT 1307 Convergent Technologies (2-4-3)
A study of telecommunications convergent technologies including telephone, LAN, WAN, wireless, voice, video, and internet protocol.

ECT 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.

ECT 1344 Telecommunications Broadband Systems (2-4-3)
A survey of telecommunications broadband transmissions systems including protocols, testing, applications and safety practices.

ECT 1380 Coop: Telecommunication (1-19-3)
ECT 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.

ECT 2330 Telecommunications Switching (2-4-3)
The operation of telecommunications switching equipment and related software. Topics include installation, testing, maintenance, and troubleshooting. Prerequisite: EECT 1303.

ECT 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.

ECT 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.

ECT 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.
ENGL 1301 (see English/Communications)
HRPO 1311 (see Behavioral/Social Sciences)
MATH 1314, MATH 1332 (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.

COSC 1436 Programming Fundamentals I (3-2-4)
Introduces the fundamental concepts of structured programming. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy.

COSC 1437 Programming Fundamentals II (3-2-4)
Review of control structures and data types with emphasis on structured data types. Applies the object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering. Prerequisite: COSC 1336/1436.

ENGR 1201 Introduction to Engineering (2-0-2)
An introduction to the engineering profession with emphasis on technical communication and team-based engineering design. One hour of lecture and three hours of laboratory each week. Prerequisite: MATH 1314 - College Algebra or equivalent academic preparation

ENGR 1204 Engineering Graphics I (2-0-2)
Introduction to computer-aided drafting using CAD software and sketching to generate two and three-dimensional drawings based on the conventions of engineering graphical communication; topics include spatial relationships, multi-view projections and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics. Prerequisite: MATH 1314 - College Algebra or equivalent academic preparation

ENGR 2105 Electrical Circuits I Laboratory (0-3-1)
Laboratory experiments supporting theoretical principles presented in ENGR 2305 involving DC and AC circuit theory, network theorems, time, and frequency domain circuit analysis. Introduction to principles and operation of basic laboratory equipment; laboratory report preparation. Co-requisite: ENGR 2305

ENGR 2304 Programming for Engineers (3-0-3)
Introduction to computer programming. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes coverage of language syntax, data and file structures, input/output devices, and disks/files.

ENGR 2301 Engineering Mechanics I – Statics (3-0-3)

ENGR 2305 Electrical Circuits I (3-0-3)
Principles of electrical circuits and systems. Basic circuit elements (resistance, inductance, mutual inductance, capacitance, independent and dependent controlled voltage, and current sources). Topology of electrical networks; Kirchhoff’s laws; node and mesh analysis; DC circuit analysis; operational amplifiers; transient and sinusoidal steady-state analysis; AC circuit analysis; first- and second-order circuits; Bode plots; and use of computer simulation software to solve circuit problems. Prerequisite or Co-requisite: MATH 2320. Prerequisites: PHYS 2325; PHYS 2125, MATH 2414
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. Includes a laboratory.

Vocational Nursing

BIOL  (see Math/Natural Sciences)

FDNS 1341  Nutrition in the Life Cycle (3-0-3)
Analysis of nutrition assessment indicators for each age group. Social consideration to growth standards, maternal weight gains, eating behaviors of various age groups, and the physiology of aging as it relates to nutrient adequacy in the mature adult.

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 1230  Maternal Neonatal Nursing (2-1-2)
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 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 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 1334  Pediatric Nursing (3-0-3)

VNSG 1402  Applied Nursing Skills I (3-3-4)
Introduction to and application of primary nursing skills. Emphasis on utilization of the nursing process and related scientific principles.

VNSG 1432 Medical-Surgical Nursing II (3-1-4)
Continuation of Medical-Surgical Nursing I with application of the nursing process to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings.

VNSG 1462 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 (3-2-4)
Application of nursing skills to meet 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

ENGL 1301 (see English/Communications)

HRPO 1311 (see Behavioral/Social Sciences)

MATH 1322 (see Math/Natural Sciences)

NDTE 2311  Prep for Weld Inspection (2-2-3)
General principles of welding inspection including welding processes, terms and definitions, welding discontinuities, duties and responsibilities of inspectors, destructive and nondestructive testing, quality assurance/quality control, welding codes and blueprints, procedures, and case studies. An overview of welding tools and equipment, metallurgy, chemistry, and joint design.

SPCH (see Speech Electives)
WLDG 1312 Intro to Flux Cored Arc Welding (FCAW) (2-4-3)
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 1313 Intro to Blueprint Reading for Welders (2-2-3)
A study of industrial blueprints. Emphasis placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production.

WLDG 1317 Introduction to Layout & Fabrication (2-4-3)
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 (MSDS); basic mathematics; measuring systems; shop operations; use and care of precision measuring tools; and the use and care of hand and power tools. Instruction on various types of welding equipment and processes, basic welding gases, fluxes, rods, electrodes, symbols, and blueprints.

WLDG 1337 Introduction to Welding Metallurgy (2-2-3)
A study of ferrous and nonferrous metals from the ore to the finished product. Emphasis on metal alloys, heat treating, hard surfacing, welding techniques, forging, foundry processes, and mechanical properties of metal including hardness, machinability, and ductility.

WLDG 1421 Intro to Welding Fundamentals (2-6-4)
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) (2-6-4)
A study of the principles of gas metal arc welding, setup and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools/equipment. Instruction in various joint designs.

WLDG 1434 Intro to Gas/Tung/Arc Welding (GTAW) (2-6-4)
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 1435 Intro to Pipe Welding (2-6-4)
An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes.

WLDG 1457 Intermediate Shielded Metal Arc (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 2413 Intermediate Welding Using Multiple Processes (2-6-4)
Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield 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)
An advanced course in layout and fabrication. Includes production and fabrication of layout, tools, and processes. Emphasis on application of fabrication and layout skills.

WLDG 2443 Advanced Shield Metal Arc (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 selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes.

Wind Energy Technology
CETT 1303 (see Mechatronics Technology)

CETT 1305 (see Mechatronics Technology)

CETT 1325 (see Mechatronics Technology)

CPMT 2250 Industry Certification Preparation (1-4-2)
Overview of the objectives for industry specific certification exam(s).

ELMT 1301 (see Mechatronics Technology)

ELMT 1305 (see Mechatronics Technology)
ENGL 1301 (see English/Communications)
HRPO 1311 (see Behavioral/Social Sciences)
INTC 1357 (see Mechatronics Technology)
MATH 1314 (see Math/Natural Sciences)
POFT 1120  Job Search Skills (1-0-1)
Skills to seek and obtain employment in business and industry.
TECM 1303 (see Related Instruction)

WIND 1300  Introduction to Wind Energy (3-0-3)
Introduction of the evolution of wind technology, wind farm
design, and characteristics of energy sources.

WIND 1302  Wind Safety (3-1-3)
Introduction to safety procedures and practices relating to turbine
towers. Includes first aid training and CPR certifications.

WIND 1470  Wind Turbine SCADA and Networking (2-4-4)
Topics in Supervisory Control and Data Acquisition systems,
Industrial Ethernet communications systems as they apply to the
wind energy industry.

WIND 2310  Wind Turbine Materials and Electro-Mechanical
Equipment (2-4-3)
Identification and analysis of the components and systems of
wind turbine.

WIND 2455  Wind Turbine Troubleshooting and Repair (2-5-4)
Operation, maintenance, troubleshooting, and repair of wind
turbine electro-mechanical systems

WIND 2459  Wind Power Delivery System (2-5-4)
Components, equipment, and infrastructure used in the
production and transmission of electricity as related to wind
turbine power.

ELMT 2380 COOP: Electromechanical/
Engineering Technology (1-19-6)
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.
Index

ABDR 1207 .................................. 138
ABDR 1311 .................................. 138
ABDR 1331 .................................. 138
ABDR 1349 .................................. 138
ABDR 1419 .................................. 138
ABDR 1441 .................................. 138
ABDR 1442 .................................. 138
ABDR 1455 .................................. 138
ABDR 1458 .................................. 138
ABDR 2257 .................................. 138
ABDR 2345 .................................. 138
ABDR 2353 .................................. 138
ABDR 2370 .................................. 138
ABDR 2380 .................................. 138
ABDR 2431 .................................. 138
ABDR 2441 .................................. 138
ABDR 2449 .................................. 138
ABDR 2451 .................................. 139
ABDR 2680 .................................. 138
ACCT 2401 .................................. 169
ACCT 2402 .................................. 169
ACNT 1303 .................................. 145
ACNT 1325 .................................. 166
AERM 1203 .................................. 140
AERM 1205 .................................. 140
AERM 1208 .................................. 140
AERM 1210 .................................. 140
AERM 1240 .................................. 140
AERM 1241 .................................. 140
AERM 1243 .................................. 140
AERM 1247 .................................. 140
AERM 1253 .................................. 140
AERM 1254 .................................. 140
AERM 1314 .................................. 140
AERM 1315 .................................. 141
AERM 1344 .................................. 141
AERM 1345 .................................. 141
AERM 1349 .................................. 141
AERM 1350 .................................. 141
AERM 1351 .................................. 141
AERM 1352 .................................. 141
AERM 1357 .................................. 141
AERM 1456 .................................. 141
AERM 2231 .................................. 141
AERM 2233 .................................. 141
AERM 2241 .................................. 141
AERM 2351 .................................. 141
AERM 2352 .................................. 141
AERM 2380 .................................. 141
AERM 2381 .................................. 141
AERM 2447 .................................. 141
AERM 2680 .................................. 141
AGAH 1347 .................................. 136
AGAH 1401 .................................. 136
AGAH 2413 .................................. 136
AGCR 1341 .................................. 136
AGCR 1403 .................................. 136
AGCR 2305 .................................. 136
AGCR 2313 .................................. 136
AGMG 1300 .................................. 136
AGMG 1311 .................................. 136
AGMG 1318 .................................. 136
AGMG 1344 .................................. 136
AGMG 2312 .................................. 136
AGMG 2382 .................................. 136
AGMG 2682 .................................. 136
Allied Health Related Skills ....... 137
ANTH 2346 .................................. 159
ARTC 1302 .................................. 155
ARTC 1305 .................................. 155
ARTC 1313 .................................. 155
ARTC 2305 .................................. 155
ARTC 2313 .................................. 155
ARTS 1301 .................................. 159
ARTS 1303 ................................. 159
ARTS 1304 .................................. 160
ARTS 1316 .................................. 160
ARTV 1341 .................................. 155
ARTV 1343 .................................. 155
ARTV 1351 .................................. 155
ARTV 2341 .................................. 155
AUMT 1201 .................................. 139
AUMT 1380 .................................. 139
AUMT 1381 .................................. 139
AUMT 1407 .................................. 139
AUMT 1410 .................................. 139
AUMT 1416 .................................. 139
AUMT 1419 .................................. 139
AUMT 1445 .................................. 139
AUMT 2270 .................................. 139
AUMT 2301 .................................. 139
AUMT 2413 .................................. 139
AUMT 2417 .................................. 139
AUMT 2421 .................................. 139
AUMT 2425 .................................. 139
AUMT 2434 .................................. 140
AUMT 2680 .................................. 140
Behavioral/Social Sciences ...... 142
BIOL 1106 .................................. 161
BIOL 1107 .................................. 161
BIOL 1108 .................................. 161
BIOL 1109 .................................. 161
BIOL 1306 .................................. 161
BIOL 1307 .................................. 161
BIOL 1308 .................................. 161
BIOL 1309 .................................. 161
BIOL 1411 .................................. 161
BIOL 1413 .................................. 161
BIOL 2101 .................................. 161
BIOL 2102 .................................. 161
BIOL 2121 .................................. 161
BIOL 2301 .................................. 161
BIOL 2302 .................................. 161
BIOL 2321 .................................. 161
BIOM 1201 .................................. 143
BIOM 1205 .................................. 143
BIOM 1209 .................................. 143
BIOM 1305 .................................. 143
BIOM 1309 .................................. 143
BIOM 1341 .................................. 143
BIOM 1355 .................................. 143
BIOM 1391 .................................. 143
BIOM 2201 .................................. 143
BIOM 2249 .................................. 143
BIOM 2288 .................................. 143
BIOM 2301 .................................. 143
BIOM 2315 .................................. 143
BIOM 2319 .................................. 143
BIOM 2339 .................................. 143
BIOM 2341 .................................. 143
BIOM 2343 .................................. 143
BIOM 2380 .................................. 143
BIOM 2480 .................................. 143
BIOM 2680 .................................. 143
BIOM 2688 .................................. 143
BMGT 1327 .................................. 145
BMGT 1341 .................................. 142
BMGT 1345 .................................. 166
BUSI 1301 .................................. 169
BUSI 2301 .................................. 169
CDEC 1321 .................................. 156
CDEC 1356 .................................. 156
CDEC 1359 .................................. 156
CDEC 2340 .................................. 156
CETT 1303 .................................. 163
CETT 1305 .................................. 163
CETT 1307 .................................. 163
CETT 1325 .................................. 163
CHEF 1205 .................................. 150
CHEF 1301 .................................. 150
ECT 2435 .................................168
ECT 2680 .................................168
ELMT 1301 .................................163
ELMT 1305 .................................163
ELMT 2333 .................................163
ELMT 2339 .................................164
ELMT 2380 .................................172
ELPT 2231 ...................................164
ENGL 1301 ....................................156
ENGL 1302 ....................................156
ENGL 2307 ....................................156
ENGL 2314 ....................................156
ENGL 2321 ....................................156
ENGL 2326 ....................................156
ENGL 2331 ....................................156
English/Communications ..........156
ENGR 1201 ....................................169
ENGR 1204 ....................................169
ENGR 2105 ....................................169
ENGR 2301 ....................................169
ENGR 2305 ....................................169
ENVR 1401 ....................................170
EPCT 1203 ....................................146
EPCT 1211 ....................................146
EPCT 1251 ....................................146
EPCT 1344 ....................................146
EPCT 2335 ....................................146
FCEL 1305 ....................................164
FDNS 1305 ....................................150
FDNS 1314 ....................................170
GAME 1301 ....................................157
GAME 1303 ....................................146
GAME 1304 ....................................146
GAME 1306 ....................................158
GAME 1309 ....................................158
GAME 1343 ....................................158
GAME 1349 ....................................158
GAME 1353 ....................................158
GAME 1359 ....................................158
GAME 2303 ....................................158
GAME 2333 ....................................158
GAME 2338 ....................................158
GAME 2333 ....................................158
GAME 2359 ....................................158
GISC 1301 ....................................148
GISC 1311 ....................................148
GISC 2320 ....................................148
GOVT 2301 ....................................142
GOVT 2302 ....................................142
GRPH 1359 ....................................155
GRPH 1380 ....................................155
HART 1300 ....................................137
HART 1310 ....................................137
HART 1401 ....................................137
HART 1403 ....................................137
HART 1407 ....................................137
HART 1414 ....................................137
HART 1445 ....................................137
HART 2380 ....................................137
HART 2381 ....................................137
HART 2436 ....................................137
HART 2438 ....................................137
HART 2441 ....................................137
HART 2442 ....................................137
HART 2445 ....................................137
HART 2680 ....................................137
HIST 1301 .....................................142
HIST 1302 .....................................142
HITT 1166 .....................................165
HITT 1211 .....................................165
HITT 1253 .....................................159
HITT 1255 .....................................159
HITT 1301 .....................................159
HITT 1305 .....................................165
HITT 1341 .....................................159
HITT 1342 .....................................159
HITT 1345 .....................................159
HITT 2149 .....................................159
HITT 2166 .....................................159
HITT 2239 .....................................159
HITT 2266 .....................................159
HITT 2335 .....................................159
HITT 2343 .....................................159
HPRS 1101 ....................................137
HPRS 1204 ....................................137
HPRS 1205 ....................................138
HPRS 2300 ....................................138
HRPO 1311 ....................................142
HRPO 2301 ....................................145
Humanities/Fine Arts ...............159
IEIR 1302 .....................................164
IEIR 1304 .....................................164
IFWA 1205 ....................................150
IFWA 1219 ....................................151
IFWA 2341 ....................................151
IFWA 2437 ....................................151
IMED 1316 ....................................155
IMED 1345 ....................................155
IMED 2311 ....................................155
IMED 2315 ....................................155
IMED 2345 ....................................155
INMT 1319 ....................................164
INTC 1341 ....................................164
INTC 1357 ....................................164
ITNW 1329 ....................................148
ITNW 1354 ....................................148
ITNW 1380 ....................................148
ITNW 1382 ....................................148
ITNW 1680 ....................................148
ITNW 2039 ....................................148
ITNW 2313 ....................................148
ITNW 2321 ....................................148
ITNW 2350 ....................................148
ITNW 2354 ....................................149
ITNW 2359 ....................................149
ITSC 1301 ....................................149
ITSC 1305 ....................................150
ITSC 1307 ....................................150
ITSC 1309 ....................................145
ITSC 1325 ....................................150
ITSC 2339 ....................................150
ITSC 2380 ....................................149
ITSC 2680 ....................................149
ITSE 1307 ....................................158
ITSE 1331 ....................................158
ITSE 1350 ....................................150
ITSE 2345 ....................................158
ITSW 1307 ....................................145
ITSY 1342 ....................................149
ITSY 2301 ....................................149
ITSY 2330 ....................................149
ITSY 2342 ....................................149
ITSY 2359 ....................................149
LAWT 1301 ....................................143
MAIR 1449 ....................................137
MATH 1314 ....................................162
MATH 1316 ....................................162
MATH 1324 ....................................162
MATH 1325 ....................................162
MATH 1332 ....................................162
MATH 1342 ....................................162
MATH 1348 ....................................162
MATH 1350 ....................................162
MATH 1351 ....................................162
MATH 2305 ....................................162
MATH 2312 ....................................162
MATH 2318 ....................................162
MATH 2320 ....................................163
MATH 2342 ....................................163
MATH 2413 ....................................163
MATH 2414 ....................................163
MATH 2415 .....................................163
Math/Natural Sciences ..................162
MCHN 1302 ..................................160
MCHN 1305 ..................................160
MCHN 1308 ..................................160
MCHN 1313 ..................................160
MCHN 1320 ..................................160
MCHN 1335 ..................................160
MCHN 1338 ..................................160
MCHN 1343 ..................................160
MCHN 1358 ..................................160
MCHN 2302 ..................................160
MCHN 2303 ..................................160
MCHN 2335 ..................................160
MCHN 2337 ..................................161
MCHN 2370 ..................................161
MCHN 2372 ..................................161
MCHN 2447 ..................................161
MDCA 1205 ..................................164
MDCA 1321 ..................................164
MDCA 1343 ..................................165
MDCA 1348 ..................................164
MDCA 1352 ..................................164
MDCA 1402 ..................................165
MDCA 1417 ..................................164
MDCA 1460 ..................................164
MDCA 2266 ..................................164
MRKG 1301 ..................................145
MRMT 1307 ..................................165
MRMT 2333 ..................................165
MUSI 1306 ..................................160
NDTE 2311 ..................................170
NURA 1301 ..................................165
NURA 1360 ..................................166
OSHT 1405 ..................................145
PHIL 1301 ..................................160
PHIL 1304 ..................................160
PHIL 2306 ..................................160
PHTC 1311 ..................................156
PHYS 1401 ..................................163
PHYS 1402 ..................................163
PHYS 1415 ..................................163
PHYS 1417 ..................................163
PHYS 2425 ..................................163
PHYS 2426 ..................................163
PLAB 1323 ..................................165
POFI 2331 ..................................145
POFT 1301 ..................................166
POFT 1309 ..................................146
POFT 1319 ..................................146
POFT 1321 ..................................146
POFT 1329 ..................................146
POFT 2331 ..................................146
PSTR 1401 ..................................151
PSYC 2301 ..................................142
PSYC 2314 ..................................142
QCTC 1303 ..................................164
RFTC 1305 ..................................164
READ 0050 ..................................154
READ 0100 ..................................154
READ 0200 ..................................154
READ 0800 ..................................154
READ 0811 ..................................154
Related Instruction .......................166
RNSG 1301 ..................................170
RSTO 1201 ..................................151
RSTO 1204 ..................................151
RSTO 1221 ..................................151
RSTO 1313 ..................................151
RSTO 1325 ..................................151
RSTO 2301 ..................................151
RSTO 2302 ..................................151
SCIT 1414 ..................................147
SCIT 1415 ..................................147
SCIT 1543 ..................................147
SCIT 2401 ..................................147
SOCI 1301 ..................................142
SOCI 1306 ..................................142
SOCI 2319 ..................................160
SPAN 1311 ..................................166
SPAN 1312 ..................................166
SPAN 1316 ..................................166
SPAN 1411 ..................................166
SPAN 1412 ..................................166
SPAN 2311 ..................................166
SPAN 2323 ..................................166
SPAN 2342 ..................................167
Spanish ........................................166
SPCH 1311 ..................................167
SPCH 1315 ..................................167
SPCH 1318 ..................................167
SPCH 1321 ..................................167
SPCH 2333 ..................................167
Speech Electives ..........................167
SRGT 1244 ..................................167
SRGT 1405 ..................................167
SRGT 1409 ..................................167
SRGT 1441 ..................................167
SRGT 1442 ..................................167
SRGT 1460 ..................................167
SRGT 1461 ..................................167
SRGT 2462 ..................................167
SRVY 2348 ..................................148
TECM 1301 ..................................166
TECM 1303 ..................................166
Transferable Academic Courses ........169
VNSG 1119 ..................................170
VNSG 1230 ..................................170
VNSG 1261 ..................................170
VNSG 1304 ..................................170
VNSG 1329 ..................................170
VNSG 1334 ..................................170
VNSG 1402 ..................................170
VNSG 1432 ..................................170
VNSG 1462 ..................................170
VNSG 2413 ..................................170
VNSG 2463 ..................................170
WDWK 1413 ..................................145
WLDG 1312 ..................................171
WLDG 1313 ..................................171
WLDG 1317 ..................................171
WLDG 1323 ..................................171
WLDG 1337 ..................................171
WLDG 1421 ..................................171
WLDG 1430 ..................................171
WLDG 1434 ..................................171
WLDG 1435 ..................................171
WLDG 1457 ..................................171
WLDG 2413 ..................................171
WLDG 2435 ..................................171
WLDG 2443 ..................................171
WLDG 2453 ..................................171
WRIT 0050 ..................................154
WRIT 0100 ..................................154
WRIT 0200 ..................................154
WRIT 0801 ..................................154
WRIT 0802 ..................................154
WRIT 0803 ..................................154

w w w . t s t c . e d u  |  8 0 0 . 8 5 2 . 8 7 8 4
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.
Personnel Directory

Board of Regents

Officers
Michael F. Northcutt, Chairman
Ellis M. Skinner, II, Vice Chairman
Linda McKenna, Executive Committee Place 1
Gene Seaman, Executive Committee Place 2

Members
Penny Forrest
Joe M. Gurecky
John Hatchel
Joe K. Hearne
J.V. Martin

System Executive Officers
Michael L. Reeser
Chancellor

J. Gary Hendricks
Vice Chancellor, Chief Financial Officer

Rick Herrera
Vice Chancellor, System Chief Technology Officer

Jonathan Hoekstra
Vice Chancellor, Chief of Staff

Gail Lawrence
Vice Chancellor for Human and Organizational Development

Dr. Cesar Maldonado
Vice Chancellor, Institutional Research and Commercialization

Dr. Elton Stuckly
Vice Chancellor for Instructional Services

Randy Wooten
Vice Chancellor for Business Development

College Presidents
Dr. Cesar Maldonado, P.E.
TSTC Harlingen

Elton E. Stuckley, Jr.
TSTC Waco

Gail Lawrence
TSTC West Texas

Randall Wooten
TSTC Marshall

TSTC Harlingen Administration
Dr. Cesar Maldonado
President/Vice Chancellor for Institutional Research and Commercialization
Ph.D., Texas Tech University

Adam Hutchison
Provost
M.A., Liberty University

Cathy Maples
Vice President for Student Development
M.Ed., University of Northern Iowa

Teri Zamora
Executive Vice President of Financial & Administrative Services
B.B.A., University of North Texas

Mary Adams
Associate Vice President of Enrollment Management
B.B.A., University of Texas Pan American

Barb Bennett
Associate Vice President of Student Learning
M.S., Eastern Illinois University

Javier De Leon
Associate Vice President of College Readiness & Advancement
M.P.A., University of Texas Pan American

Stella Garcia
Associate Vice President of Corporate & Community Education
M.P.A., Texas State University at San Marcos

Dr. Regina Garza-Mitchell
Associate Vice President of Student Learning
Ed.D., Central Michigan University

Angie Gonzalez
Associate Vice President of External Relations
M.P.P.M., University of Texas at Brownsville

Charles Smith
Associate Vice President of Administrative Services
B.S., Texas A&M University
Professional Staff

Christina Acevedo  
Buyer I  
B.S. - University of Phoenix

Jorge Alanis  
Mentoring Coordinator  
B.A., University of Texas at Brownsville

Melissa Alemán  
H.R. Advisor  
A.A.S., Texas State Technical College Harlingen

Adan Alvarez  
Project Manager  
B.S., University of Texas at Arlington

Amy Ancisco  
Academic Advisor  
B.A., Cabrini College

Claudia Arnold  
Counselor, Vocation  
B.A., University of Texas at Brownsville

Paula Arredondo  
Registrar  
Certificate, Texas State Technical College Harlingen

Ermelinda Barron  
Coordinator WIA  
M.Ed., Texas A&M University – Kingsville

David Joseph Basler  
Director- Collaborative Projects  
B.B.A., Texas A&M University

Robert Bennett  
Director - Instructional Projects  
D.D.S., Southern Illinois Univeristy

Ester Bodner  
System Analyst I  
A.A.S., Texas State Technical College Harlingen

Pat Bubb  
Director of Tech Prep  
B.A., University of Texas Pan American

Georgeann Calzada  
Mentoring Coordinator  
B.A.A.S., University of Texas at Brownsville

Laura Casas  
Director-Talent Search  
M.B.A., University of Texas at Brownsville

Elizabeth Cavazos  
Executive Director  
M.P.H., University of Texas Health Science Center at Houston

Adele Clinton  
Director of Student Life  
M.S., University of Texas Pan American

Ana Cortez  
Equity Advocate Counselor  
B.A., University of Texas Pan American

Clarisa De la Fuente  
Director-Dual Enrollment  
B.A., University of Texas Pan American

Corina De la Rosa  
Coordinator - Disabilities Programs  
B.S.W., University of Texas Pan American

Ramiro De la Rosa  
Director of Distance Education  
M. Ed., Texas Tech University

Myra Deleon  
Testing Administrator  
A.A.S., Texas State Technical College at Harlingen

Carolina Duran  
Accountant  
B.B.A., University of Texas Pan American

Alfredo G. Espinoza  
Director - Educational Opportunity Center  
M.S., Texas A&I University - Kingsville

Sharon Farias  
Executive Assistant to President

Dale Feekes  
Network Specialist  
B.A.T., University of Texas at Brownville

Gisela E. Figueroa  
Supervisor - Accounting  
M.B.A., University of Texas at Brownsville/TSC

Tillie Flores  
Assistant Financial Aid Officer  
A.A.S., Texas State Technical College Harlingen
Susan Flores
Operations Associate
B.S., Abilene Christian University

Craig Franke
Assistant Director of Network & Telecom Services
B.A.T., University of Texas at Brownsville

Joe Garcia
Supervisor - Custodial Services

Juan Garcia
Director-Curriculum
M.S., University of Texas at Pan American

Cecilia Garza
Staff Auditor
B.A.A.S., University of Texas Brownsville

Gabriela Garza
Project Manager
B.A.A.S., University of Texas Brownsville

Juan Garza
Director - Resource Development
A.A.S., Texas State Technical College

Lorena Y. Garza
Admissions Advisor
B.A., University of Texas at Pan American

Deborah Gibson
Supervisor, Accounting
B.S., University of Houston

Elma Gomez
Academic Advisor
B.A., University of Texas at Brownsville

Janette Gomez
Counselor, Student
M.S., Texas A&M University at Kingsville

Jose Alfredo Gonzalez
Instructional Technology Specialist II
A.A.S., Texas State Technical College Harlingen

Rachel Groman
Upward Bound Advisor
B.A., University of Texas at Brownsville
M.A., Master International School of Divinity

Pedro Guardiola
Buyer I
A.A.S., Texas State Technical College Harlingen

Steve Guevara
Systems Analyst I
B.T., University of Texas at Brownsville

Keri Gutierrez
Director, Marketing & Communications
A.A.S., Texas State Technical College Harlingen

Martha Gutierrez
Coordinator of Industrial Training
B.S., University of Texas Pan American

Nancy Hendriks
Public Service Librarian
M.L.S., Wayne State University

Celina Solis-Hernandez
Coordinator - Institutional Research
B.B.A., University of Texas Pan American

Susan Holmes
Director-Placement Services & Cooperative
B.A., Texas Christian University

Katie Infante
Academic Advisor
B.A.A., University of Texas Brownsville

Juan Leal
Director-Continuing Education
B.B.A., University of Texas at Brownsville

Velma Leal
Disability Accommodations Specialist
B.S., University of Texas at Brownsville

Juan Lopez
Director, Physical Plant
A.A.S., University of Texas at Brownsville

Lynda Lopez
Assistant to the President
B.A., Southwest Texas State University at San Marcos

Paulino Lopez
Application administrator
A.A.S., Texas State Technical College at Harlingen

Gerardo Lozano
Systems Analyst I
University of Texas Pan American
Antonia Luna
Coordinator of Industrial Training
M.A., University of Texas Pan American

Melissa Manrique
Director - Special Projects
B.A., University of Texas Pan American

Rodolfo Marks
Director-Corporate Training
A.A.S., University of Texas at Brownsville

Katie Martinez
Systems Analyst I
A.A.S., Texas State Technical College Harlingen

Mary Jane Martinez
Grant Manager
B.A., University of Texas at Brownsville

Cynthia Mascorro
Academic Advisor
B.S., University of Texas at Brownsville

Cindy O. Mata
Director-Special Projects
M.A., University of Texas at Austin

Cynthia Mata
H.R. Consultant
B.B.A., University of Texas Pan American

Connie Moncus
Project Manager
M.B.A., - University of Texas Brownsville

Rosalinda Morales
Coordinator - Testing
B.A., University of Texas at Brownsville

Michael Muniz
Licensed Professional Counselor
M.A., St. Mary’s University

Belinda Munoz
Admissions Advisor
B.S., Texas A&M University at Kingsville

Dora Olivares
Director of College Information
B.A., University of Texas Pan American

Yvette Olivarez
Admissions Advisor
B.A.A., University of Texas at Brownsville

John Ortega
Academic Advisor

Melinda Ortiz
Admissions Advisor
B.A., University of Texas Brownsville

Valentin Osejo
Supervisor of Property & Accountability
B.B.A., University of Texas Pan American

Tahlia Pena
Staff Auditor
M.B.A., University of Texas Pan American

Carlos Perez
Supervisor of Housing & Dorms

Carmen Perez
Buyer I

Jennifer Porras
Pretech Advisor
A.A.S., Texas State Technical College at Harlingen

Mary Sanchez Prepejchal
Director of Human Resources
B.A., University of Houston

Dave Ralph
Communications Writer
B.S., University of Wisconsin

Nora Ramirez
Academic Advisor
A.A.S., Texas State Technical College Harlingen

Linda Ramirez
Instructional Tech Specialist I
A.A.S., Texas State Technical College Harlingen

Lydia Ramos
Project Manager
A.A.S., Texas State Technical College at Harlingen

Linda Rodriguez-Guillen
Director of Purchasing & Inventory Control
B.B.A., St. Mary’s University
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norma Salazar</td>
<td>Director - Student Success</td>
<td>M.S., University of Texas Pan American</td>
</tr>
<tr>
<td>Josie Saldivar</td>
<td>Coordinator - Career Plan/Placement</td>
<td>B.A.T., University of Texas Brownsville</td>
</tr>
<tr>
<td>David Sanchez</td>
<td>Academic Advisor</td>
<td>B.A.A., University of Texas at Brownsville</td>
</tr>
<tr>
<td>Gloria Serra</td>
<td>Admissions Advisor</td>
<td>B.S., University of Texas at Brownsville</td>
</tr>
<tr>
<td>Elizabeth Silva</td>
<td>Director - Career &amp; Guidance</td>
<td>M.Ed., University of Texas Pan American</td>
</tr>
<tr>
<td>Laurie Simmons</td>
<td>Director-New Technology Program</td>
<td>B.A., University of Texas at Austin</td>
</tr>
<tr>
<td>Charles Smith</td>
<td>Associsate Vice President Administrative Sevices</td>
<td>B.S., Texas A&amp;M University</td>
</tr>
<tr>
<td>Arturo Solano</td>
<td>Debit Card Administrator</td>
<td>B.A.T., University of Texas Brownsville</td>
</tr>
<tr>
<td>Steven Szynoniak</td>
<td>Director- Faculty Development</td>
<td>M.B.A., - Columbia Southern University</td>
</tr>
<tr>
<td>Eddie Tapia</td>
<td>Director of Instructional Media Center</td>
<td>B.A.A.S., University of Texas at Brownsville</td>
</tr>
<tr>
<td>Belinda Torres</td>
<td>Tech Prep Coordinator of Industrial Training</td>
<td>E.D.D., University of Texas Health Science Center</td>
</tr>
<tr>
<td>Jose Adan Trevino</td>
<td>Academic Advisor</td>
<td>B.S., University of Texas at Pan American</td>
</tr>
<tr>
<td>Edda M. Urrea</td>
<td>Director, Support Services</td>
<td>M.A., Texas A&amp;M University Kingsville</td>
</tr>
<tr>
<td>Viola Vela</td>
<td>Accountant</td>
<td>B.B.A., University of Texas Brownsville</td>
</tr>
<tr>
<td>Cindy Waddle</td>
<td>Admissions Advisor</td>
<td>B.A., University of Texas Health Science Center</td>
</tr>
<tr>
<td>Kelly Withrow</td>
<td>Librarian Technical Services</td>
<td>M.L.S., - Kent State University</td>
</tr>
<tr>
<td>Lenora Yanez</td>
<td>Academic Advisor</td>
<td>A.A.S., University of Texas at Brownsville</td>
</tr>
<tr>
<td>Jessica Ybarra</td>
<td>Instruction Technology Specialist II</td>
<td>Certificate, Texas State Technical College Harlingen</td>
</tr>
<tr>
<td>Judith Ybarra</td>
<td>Resource Development Specialist</td>
<td>B.A., University of Texas at Brownsville</td>
</tr>
<tr>
<td>Stephen Zarate</td>
<td>Coordinator-Special Projects</td>
<td>B.S., University of Texas at Pan American</td>
</tr>
<tr>
<td>Lissette Zavala-Muniz</td>
<td>Supervisor-Student Activites</td>
<td>B.A., Concoridia University</td>
</tr>
<tr>
<td>David Zieske</td>
<td>Academic Advisor</td>
<td>A.A.S., Texas State Technical College</td>
</tr>
<tr>
<td>Antonia Zuniga</td>
<td>Coordinator- Budgets</td>
<td>CER- Texas State Technical College</td>
</tr>
<tr>
<td>Gisela Zuniga</td>
<td>Admissions Advisor</td>
<td>A.A.s., Texas State Technical College at Harlingen</td>
</tr>
<tr>
<td>Justin Zuniga</td>
<td>Webmaster</td>
<td>A.A.S., Texas State Technical College Harlingen</td>
</tr>
<tr>
<td>Melani Zuniga</td>
<td>Coordinator of Publications</td>
<td>A.A.S., Texas State Technical College Harlingen</td>
</tr>
</tbody>
</table>
Faculty

Galen H. Adams
Senior Instructor, Developmental Math
M.S., Arkansas State University

Margaret Adams
Instructor, Developmental Math
B.S., University of North Texas

Mohamed Agharbi
Master Instructor, Developmental Math
M.S., Texas A&M University

Alejandro Alcoser
Instructor
B.T., University of Texas at Brownsville

Cristina Aldape
Instructor, Office of Student Success
B.S., University of Texas Pan American

Emma Garcia Alvarez
Instructor, Medical Information Specialist/Transcriptionist
A.A.S., Texas State Technical College Harlingen

Kyumars Ardalani
Associate Professor, Mathematics/Physics
M.S., Texas A&M University

Gladys Arjona
Instructor, Dental Hygiene
M.Ed, TX A&M Kingsville

Felicidad Balcos
Associate Professor, Communications/Humanities, Department Chair
M.A., University of the Philippines

Patrick Bauer
Master Instructor, Culinary Arts
B.S., University of Houston

Randy Bauer
Senior Instructor, Department Chair, Dental Laboratory Technology
A.A.S, Texas State Technical College Harlingen

Pedro Bazan
Master Instructor, Developmental Math
M.S., University of Texas Pan American

Billie Becker
Associate Professor, Department Chair, Developmental English
M.S., SUNY at Albany

Beverly Bendiks
Instructor, Communications & Humanities
M.A. University of Texas Pan American

Robert Bennett
Senior Instructor, Department Chair, Dental Assistant
D.D.S., Southern Illinois University

Daniel Bodnar
Master Instructor, Telecommunications
B.S., Texas A & M University-Corpus Christi

Melissa Bowery
Instructor, LVN Program
A.A.S., University of Texas at Brownsville

Yvonne Browning
Instructor, Behavioral/Social Sciences
M.A., Trinity University

Jill B. Brunson
Instructor, Dental Assistant
Certificate, Southwestern Oklahoma State University

Jorge Cabrera
Instructor, Air Conditioning & Refrigeration Technology
A.A.S., Texas State Technical College Harlingen

David Campos
Instructor, Computer Drafting & Design Technology
A.A.S., Texas State Technical College

Ruby Campuzano
Instructor, Academic Business Programs
M.S., University of Texas Pan American

Omar Cano
Associate Professor, Biology/Nursing Preparatory Programs
M.S., University of Texas Pan American

Gina Cano-Monreal
Instructor/PC, Biology
Ph.D., St. Louis University

Antonia Saldivar
Instructor, Office of Student Success
B.T., University of Texas at Brownsville

Joseph Cantu
Instructor, Auto Collision Technology
A.A.S., Texas State Technical College Harlingen

Charles D. Castillo
Instructor, Biology/Nursing Preparatory Programs
M.S., University of Texas Pan American

Edward Cavazos
Instructor, Computer Systems Management Technology
B.A., University of Texas Pan American
Edna Claus  
Professor, Division Director  
Computer Systems Management Technology  
Ph.D., Texas A&M Kingsville

Steven Coffman  
Instructor, Game & Simulation Programming  
A.A.S., Texas State Technical College Harlingen

Norma Colunga-Hernandez  
Master Instructor, Computer Networking & Security Technology  
M.S., Western Christian Science

Nicki Cone  
Instructor, English  
M.A., Texas A&M University

Scott Contois  
Instructor, Developmental Math  
M.S., Western Illinois University

Aquileo Cortes  
Instructor, Dental Laboratory Technology  
M.A., Webster University

San Juana Cuellar  
Associate Professor, Business & Behavioral/Social Sciences  
M.B.A., University of Texas Pan American

Barbara Darling  
Instructor, Education & Training  
M.Ed., Texas A&M University

John R. Davidson  
Instructor, Social/ Behavioral Science  
M.A., University of Texas at Brownsville

Ruben De la Rosa  
Instructor, Department Chair,  
Air Conditioning & Refrigeration Technology  
B.S., University of Texas Pan American

Gilbert De Leon  
Instructor, HEP  
B.S., University of Texas Pan American

Marilupe Delgado  
Instructor, Developmental English  
M.A., University of Texas Brownsville

Tony M. Desjardins  
Instructor, Education & Training  
Ed.D., University of Houston

Elaine Dispo  
Instructor, Communications & Humanities  
M.A., Angelo State University

Armando Duarte  
Master Instructor, Department Chair, Agricultural Technology  
B.S., Texas A & M University-Kingsville

Carl Eads  
Master Instructor, Department Chair, Culinary Arts  
B.B.A., University of Texas Pan American

Susan East  
Instructor, Nursing  
A.S., Clovis Community College

Laura Esquivel  
Instructor, Dental Hygiene  
A.A.S., Texas State Technical College Harlingen

Eva Euler  
Instructor, Dental Hygiene Technology  
M.Ed., Texas A&M University Kingsville

Fernando Figueroa  
Instructor, Division Director, Engineering Program Division  
M.B.A., University of Texas at Brownsville

Roel Flores  
Master Instructor, Chemical-Environmental Technology  
B.S., Texas A & M University College Station

Emmanuel Formacio Serna  
Instructor, Biology/Nursing Preparatory Programs  
M.D., Universidad Popular Autonoma Medical

Garnet Gaither  
Master Instructor  
Digital Media Design Technology  
B.A., Texas A & M University College Station

Mirna Garcia  
Instructor, Developmental English  
M.A., University of Texas Brownsville

John T. Garrett  
Associate Professor, Department Chair,  
Business & Behavioral/Social Sciences  
M.Ed., University of Texas at Brownsville

Ageda Garza  
Instructor, Surgical Technology  
A.A.S., University of Texas Pan American

Gabriel Garza  
Instructor, Digital Media Design  
A.A.S., Texas State Technical College Harlingen

Rene Garza  
Instructor, Communications & Humanities  
M.F.A., UT Pan American
Michael Gay  
Instructor, Biology  
M.A., University of Texas Pan American

Ana Gonzales  
Instructor, Health Information Technology  
B.S., Texas State University

Alfonoso Gonzalez  
Instructor, Building Construction Technology  
A.A.S., Texas State Technical College Harlingen

Daniel Gonzalez  
Professor, Academic English  
Ed.D., University of Houston

Elsa Gonzalez  
Instructor, Business & Behavioral/Social Sciences  
M.A., Texas State University - San Marcos

Adan Gutierrez, Jr.  
Instructor, Automotive Technology  
B.S., Texas A&M University - Corpus Christi

Paul Hansen  
Instructor, Developmental English  
M.A., University of Texas at Brownsville

John Hensley  
Instructor, Student Success  
M.S.W., University of Texas Pan American

Adam Hernandez  
Instructor, Department Chair, Automated Manufacturing Technology  
B.A., Texas AM University of Kingsville

Felipe Hernandez  
Instructor, Computer Systems Management Technology  
A.A.S., Texas State Technical College Harlingen

Robert Hernandez  
Instructor, Department Chair, Chemical-Environmental Technology  
B.S., University of Texas at Austin

Yanina Hernandez  
Instructor, Academic Foreign Language  
M.A., University of New Mexico

Adriana Hinojosa-Vassberg  
Instructor, LVN Program  
A.A.S., University of Texas at Brownsville

Mary Hollmann  
Instructor, Education & Training  
M.Ed., University of Texas at Brownsville

Mehrdad Hosseinpour  
Master Instructor, Developmental Math  
M.S., Texas A&M University

Juliana Garcia  
Instructor, Communication & Humanities  
M.A., University of Texas at Brownsville

Cesar Ibarra  
Instructor, Computer Networking & Security Technology  
A.A.S., Texas State Technical College

Timothy A. Kikos  
Instructor, English/Spanish  
M.A., University of Texas Pan American

Richard Kirk  
Associate Professor, Social/Behavioral Science  
W.S.W., Loyola University  
M.A., Boston College

Velma Kotzur  
Instructor, Office of Student Success  
B.S.W., University of Texas Pan American

Jean Lashbrook  
Senior Instructor, Division Director - Allied Health Nurse Assistant Technology  
A.A.S., R.N., New York University

Delia Leal  
Instructor, Business Management Technology  
B.A., University of Texas Pan American

Jessica Leal  
Instructor, Chemical Technology  
M.S., University of Texas Pan American

Eldwin Leija  
Instructor, Automated Manufacturing  
B.A., University of Texas Pan American

Paul Leonard  
Associate Professor, Department Chair, Biology/Nursing Preparatory Programs  
M.S., University of Texas Pan American

Frank Lewis  
Associate Professor, English/Spanish  
M.A., American University

Ricardo Limas  
Instructor, Machining Technology  
A.A.S., Texas State Technical College

George Lister  
Instructor, Department Chair, Wind Turbine  
M.S., National University
Ray Longoria
Instructor, Biomedical Equipment Technology
A.A.S., Texas State Technical College

Rogelio Longoria
Instructor, Air Conditioning & Refrigeration Technology
A.A.S., Texas State Technical College Harlingen

Victor Loya
Instructor, Culinary Arts
B.S., University of Phoenix

Tony Lozano
Instructor, Game & Simulation Programming
A.A.S., Texas State Technical College Harlingen

Alicia Lugo
Senior Instructor, Nurse Assistant
B.S., University of Texas Brownsville

Elizabeth Martinez
Instructor, Computer Systems Management Technology
B.S., Texas A&M University Corpus Christi

Matthew Mire
Instructor, Agriculture Technology
B.S., Texas A&M University

Julian Montalvo
Instructor, Automotive Technology
A.A.S., Texas State Technical College Harlingen

Al Montemayor
Master Instructor, Computer Networking and Security Technology
M.A., Trinity University

Kenneth Moore
Department Chair, Welding
A.A.S., Texas State Technical College

Michael Murphy
Instructor, Department Chair, Developmental Math
B.A., University of Houston

Sam Nauman
Assoc. Professor Dev. Math
M.B.A., Southern New Hampshire University

Jan Nesmith
Instructor, Computer Networking and Security Technology
B.T., University of Texas at Brownsville

Melissa Nieto
Instructor, Medical Assistant

Anna San Pedro
Instructor, Surgical Technology
A.A.S., Texas State Technical College Harlingen

Hugo Ortega
Instructor, Building Construction Science
A.A.S., Texas State Technical College Harlingen

Clark Owen
Master Instructor, English/Spanish
M.A., University of Texas at Brownsville

Krisotpher Petit
Instructor, Dental Hygiene
A.A.S., Texas State Technical College

David Place
Instructor, Digital Media Design Technology
A.A.S., Texas State Technical College

Uvaldo Presas
Instructor, Digital Media Design Technology
A.A.S., Texas State Technical College Harlingen

Beyda M. Ramirez
Instructor, Medical Information Specialist/Transcriptionist
B.A.S., University of Texas at Brownsville

Roberto Ramirez
Instructor, Automotive Technology
A.A.S., South Texas College

Raquel Rico
Instructor, Dental Hygiene
A.A.S., Texas State Technical College

Roberto Rivera
Instructor, Biomedical Equipment Technology
A.A.S., Texas State Technical College Harlingen

Leonardo Robb
Instructor, Aviation Maintenance
A.A.S., Texas State Technical College Harlingen

Aida Rocha
Instructor, Health Information Technology
B.A.A., University of Texas Brownsville

Jennifer Rodriguez
Instructor, Communications/Humanities
M.F.A., University of Texas Pan American

Ramiro Rodriguez
Instructor, English/Spanish
M.A., University of Texas at Brownsville

Scott Rogers
Instructor, Nursing
A.A.S., Lane Community College

Nancy Gail Russell
Instructor, Communications/Humanities
M.S., Texas A&M University - Corpus Christi
Jose Salas
Instructor, Welding Technology
A.A.S., Texas State Technical College

Rene Saldivar
Instructor, Social/Behavioral Science
M.S., University of Texas Pan American

Robert Sanchez
Master Instructor, Department Chair, Surgical Technology
B.S.N., University of Texas Pan American

Anthony Santos
Instructor, Computer Networking & Security Technology
A.A.S., Texas State Technical College

Virginia Serna
Senior Instructor, English/Spanish
M.A., University of Texas Pan American

Elvia Silva
Master Instructor, Business Management Technology
M.Ed., University of Texas Brownsville

Rose Soto
Master Instructor, Business Management Technology
B.B.A., University of Texas Pan American

Christa Stubblefield
Instructor, biology
B.S., University of Texas at Brownsville

Steven Szymoniak
Michael Sullenger
Instructor, Business & Behavioral/Social Sciences
M.S., Troy State University

Brenda Swinnea
Instructor, Nurse Assistant
A.A.S., University of Texas Pan American

Atiq Syed
Professor, Mathematics/Physics
Ph.D., St. Louis University

William Taliancich
Instructor, Academic English
M.A., University of Texas at Brownsville

Amanda Tamez
Instructor, Developmental Math
B.S., University of Texas at Brownsville

Maritza Trevino
Instructor, Dental Hygiene
A.A.S., Texas State Technical College

Jose Vargas
Instructor, Department Chair, Auto Collision Technology
A.A.S., Texas State Technical College Waco

Paul Vassberg
Master Instructor, Developmental English
B.A., University of Texas-Austin

Jerry Vavra
Instructor, Department Chair, Digital Imaging Technology
B.A., University of Advancing Computer Technology

Diego Villarreal
Instructor, Mechatronics Technology
A.A.S., Texas State Technical College Harlingen

Ida Villarreal
Master Instructor, Office of Student Success
B.A., University of Texas Pan American

Juan Villarreal
Instructor, Department Chair, Telecommunications Technology

Ramiro Villarreal
Instructor, Welding Technology
A.A.S., Texas State Technical College at Harlingen

Santiago Villarreal
Instructor, Digital Media Design Technology
A.A.S., Texas State Technical College Harlingen

Anneliese White
Instructor, Academic English
M.A., Texas State University at San Marcos

Jonathan White
Instructor, English/Spanish
M.F.A., Texas State University - San Marcos

Rachel Wilson
Instructor, Department Chair, ADN
M.S., University of Texas at Brownsville

Deborah Woods
Instructor, Medical Information Specialist/Transcriptionist
B.B.A., Beker College

Sessia Wyche
Instructor, Developmental Math
M.S., Texas A&M University at Kingsville

Hector Yanez
Senior Instructor, Computer Drafting & Design Technology
M.Ed, University of Texas at Brownsville
Index

A
Admission Procedures.................................................................9
Academic Fresh Start.................................................................10
Early Admission/Concurrent High School/Dual Enrollment.........10
Former TSTC Students.........................................................9
General Admission Procedures.........................................9
International Students......................................................9
Admission Requirements......................................................8
Additional Program Admission Requirements......................8
General Admission Requirements................................8
Admissions Information.........................................................8
Admission Procedures.........................................................9
Academic Fresh Start..............................................................10
Early Admission/Concurrent High School/Dual Enrollment.......10
Former TSTC Students.........................................................9
General Admission Procedures.........................................9
International Students......................................................9
Admission Requirements......................................................8
Additional Program Admission Requirements......................8
General Admission Requirements................................8
Campus Tours........................................................................8
Placement Testing....................................................................10
Registration for Classes......................................................10
ADN Nursing Academic Courses...........................................34
Advising..................................................................................27
New Student Orientation......................................................28
Agricultural Operations.........................................................90, 136
Agricultural Technology .......................................................54, 90, 136
Air Conditioning and Refrigeration Technology..................55, 91, 120, 137
Allied Health and Nursing..................................................81
Allied Health Prerequisite Courses..................................34
Allied Health Related Skills................................................137
Applying for Financial Assistance.................................16
How to Apply........................................................................16
When to Apply.....................................................................16
Articulation Agreements.........................................................40
High School Articulation Agreements.................................40
Tech Prep.............................................................................40
Associate of Applied Science Degree Programs..................50
Agricultural Technology .......................................................54, 136
Air Conditioning and Refrigeration Technology................55, 137
Auto Collision Technology.................................................56, 138
Automotive Technology......................................................57, 139
Aviation Maintenance Technology...................................58, 140
Biomedical Equipment Technology................................59, 143
Building Construction Science...........................................60, 144
Business Management Technology................................61, 145
Office Administration.........................................................61
Chemical-Environmental Technology...............................62, 146
Computer Drafting and Design Technology.......................63, 147
Computer Networking and Security Technology..............64, 148
Computer Network Specialist..............................................64
Computer Systems Management Technology......................65, 145
Culinary Arts........................................................................66, 150
Dental Hygiene.....................................................................67, 152
Dental Laboratory Technology...........................................68, 153
Digital Media Design Technology.....................................69, 155
Education and Training.......................................................70, 156
General Education.................................................................52
General Information..............................................................52
General Requirements..........................................................52
Game & Simulation Programming.....................................71, 157
Health Information Technology.........................................72, 159
Machining Technology.......................................................73, 160
Mold, Tool and Die Making................................................73
Mechatronics Technology..................................................74, 163
Medical Assistant.................................................................75, 164
Student Success.................................................................52
Student Success Course (HRPO 1311).................................52
Surgical Technology.............................................................76, 167
Telecommunications Technology......................................77, 168
Welding Technology.............................................................78, 170
Wind Energy Technology...................................................79, 171
Associate of Science Degree Programs..............................80
Allied Health and Nursing.................................................81
Biology..................................................................................82
Computer Science...............................................................83
Engineering..........................................................................84
General Education.............................................................80
General Information............................................................80
General Requirements........................................................80
Health Professions..............................................................85
Learning Framework Course..............................................80
Mathematics.........................................................................86
Physics..................................................................................87
Attendance Policy for Veterans and Dependents using GI Bill or Tuition Exemption..............................18
Course Repeat.......................................................................18
Enrollment Certification......................................................18
No Show Status....................................................................18
Audited Courses..................................................................39
Auto Collision Technology..................................................56, 92, 121, 138
Automotive Technology......................................................57, 93, 94, 122, 139
Aviation Maintenance Technology..................................58, 95, 96, 140

B
Behavioral/Social Sciences..................................................142
Biology..................................................................................82
Biomedical Equipment Technology.................................59, 143
Bookstore Refunds...............................................................16
Building Construction Science...........................................60, 97, 123, 144
Buildings and Facilities.......................................................47
Business.............................................................................117
Business Management Technology................................61, 98, 124, 145

C
Campus Security.................................................................46
Career Services.................................................................46
Certificate of Completion Programs..................................88
Agricultural Operations.........................................................90, 136
Air Conditioning & Refrigeration Technology....................91, 137
Auto Collision Technology.................................................92, 138
Automotive Technician.......................................................93, 94, 139
Ford Maintenance & Light Repair Specialty Certificate......94
Aviation Maintenance Technology.................................95, 96, 140
Airframe Option.................................................................95
Powerplant Option..............................................................96
Building Construction Science..........................................97, 144
Business Management Technology................................98, 145
Office Assistant.................................................................98
General Requirements ..........................................................116
General Education ................................................................116
Learning Framework Course..................................................116
Failure to Meet the Financial Aid Standards of Academic Progress ........22
   Appeal Process ..............................................................23
   Notification of Financial Aid Warning ..............................23
   Probation - After Appeal Approval .................................23
   Reinstatement ................................................................23
   Suspension .....................................................................22
   Warning-Following Suspension Status ............................23
   Warning Status ............................................................22
Financial Assistance ..............................................................16
   Applying for Financial Assistance .................................16
   How to Apply ..................................................................16
   When to Apply .............................................................16
   Failure to Meet the Financial Aid Standards of Academic Progress ........22
      Appeal Process ..........................................................23
      Notification of Financial Aid Warning ..........................23
      Probation - After Appeal Approval ..............................23
      Reinstatement ................................................................23
      Suspension ....................................................................22
      Warning-Following Suspension Status .......................23
      Warning Status ..........................................................22
Maintaining Financial Aid Eligibility .......................................21
   Additional Certificates and Degrees ................................22
   Additional SAP Rules .....................................................22
   Change of Major and Transfer Credits ............................22
   Failure to Meet Financial Aid Standards of Academic Progress ........21
   Financial Aid Standards of Academic Progress ...............21
   Financial Aid Will Not Pay .............................................22
   Quantitative Progress Measure .....................................21
Maximum Time Frame for Receiving Financial Aid ..........22
Refunds for Financial Aid Recipients ..................................24
Repayment of Federal Funds: Return of Title IV ......................24
Scholarships .......................................................................20
Types of Financial Assistance .............................................17
Veterans Financial Aid and Veterans Benefits .......................18
   Attendance Policy for Veterans and Dependents using
   GI Bill or Tuition Exemption .........................................18
   TSTC Veteran’s Affair Educational Benefits Checklist .......19
Waivers and Exemptions ....................................................12, 13, 21
Food Service .........................................................................44
Game & Simulation Programming ........................................71, 106, 157
General Education ..............................................................30, 52, 80, 88, 116
General Education Academic Core .......................................33
General Education and Transfer ............................................30
General Education Courses ..................................................30, 31
General Information ............................................................47
   Buildings and Facilities .................................................47
   Compact with Texas ......................................................48
   TSTC’s Customer Service Goal ......................................48
   TSTC’s Formal Written Complaint Handling Procedure ....48
   TSTC’s Values ..............................................................48
   TSTC’s Vision ..............................................................48
   Educational Foundations ............................................47
   Industry Advisory Committees ....................................47
   Institutional Research ..................................................47
   Instructional Philosophy ..............................................47
   Release of Student Records .........................................47
   Texas Higher Education Coordinating Board Complaint Procedure ....49
General Requirements ..........................................................52, 80, 88, 116
Governing and Accreditation ..................................................6
Grade Changes .....................................................................25
Grade Point Averages ..........................................................24
   Cumulative Grade Point Average ..................................25
   Standards of Progress Grade Point Average .................25
   Term Grade Point Average ..........................................24
Grade Reports .......................................................................25
Grading Standards .............................................................24
Graduate Guarantee ............................................................29
Graduation and Commencement ...........................................29
   Commencement Ceremonies ........................................29
   Graduation Honors ......................................................29
   Graduation Requirements ............................................29
H
Health Information Technology ..................................................72, 159
Health Professions ..................................................................85
Helpful Phone Numbers ................................................................inside back cover
High School Articulation Agreements .......................................40
Housing ..................................................................................14, 16, 41
Housing Refunds .....................................................................16
Humanities Electives ..............................................................31, 159
I
Individualized Instruction ......................................................39
Industry Advisory Committees .............................................47
Installment Payment Plan .....................................................14
   Emergency Tuition Loan .............................................14
Institutional Purpose and Goals .............................................2
   Statement of Purpose ..................................................2
   Expanded Statement of Purpose ....................................2
   Vision and Values ........................................................2
Institutional Research ..........................................................47
Instructional Philosophy ..........................................................47
International Baccalaureate Diploma Program .......................38
L
Learning Framework Course ..................................................78, 116
Learning Resource Center .....................................................44
M
Machining Technology ............................................................73, 107, 108, 129, 160
Marketable Skills Awards .....................................................119
   Air Conditioning & Refrigeration ..................................120
   Auto Collision Technology ............................................121
      Auto Body Collision and Finish Preparer ....................121
      Automotive Technology ............................................122
         Automotive Maintenance Mechanic .......................122
   Building Construction Science .....................................123
   Business Management Technology ..............................124
   Computer Drafting and Design Technology ....................125
   GIS Specialist ............................................................125
   Computer Networking and Security Technology .............126
      Switching and Routing Technician ..............................126
   Computer Systems Management Technology .................127
      Computer Retail Technician .......................................127
   Digital Media Design Technology ..................................128
   Digital Photography Technician ....................................128
   Machining Technology ..................................................129
   Mechatronics ..............................................................130
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Absence and Religious Holy Days</td>
<td>40</td>
</tr>
<tr>
<td>Student Participation</td>
<td>40</td>
</tr>
<tr>
<td>Transcript of Credit</td>
<td>26</td>
</tr>
<tr>
<td>Transfer of Credit</td>
<td>40</td>
</tr>
<tr>
<td>Resolution of Transfer Disputes for Lower Division Courses</td>
<td>41</td>
</tr>
<tr>
<td>Scholastic Integrity</td>
<td>41</td>
</tr>
<tr>
<td>Scholastic Standing</td>
<td>25</td>
</tr>
<tr>
<td>Good Standing</td>
<td>25</td>
</tr>
<tr>
<td>Scholastic Probation</td>
<td>25</td>
</tr>
<tr>
<td>Scholastic Suspension</td>
<td>25</td>
</tr>
<tr>
<td>Spanish</td>
<td>31, 166</td>
</tr>
<tr>
<td>Speech Electives</td>
<td>33, 167</td>
</tr>
<tr>
<td>Statement of Purpose</td>
<td>2</td>
</tr>
<tr>
<td>Student Conduct and Discipline</td>
<td>46</td>
</tr>
<tr>
<td>Student Conduct</td>
<td>46</td>
</tr>
<tr>
<td>Student Discipline Procedures</td>
<td>47</td>
</tr>
<tr>
<td>Student Health</td>
<td>44</td>
</tr>
<tr>
<td>Bacterial Meningitis Notification</td>
<td>44</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>44</td>
</tr>
<tr>
<td>Health Services</td>
<td>44</td>
</tr>
<tr>
<td>HIV Policy and Procedures</td>
<td>44</td>
</tr>
<tr>
<td>Fees</td>
<td>44</td>
</tr>
<tr>
<td>Immunization Vaccines</td>
<td>44</td>
</tr>
<tr>
<td>Student Health Insurance</td>
<td>45</td>
</tr>
<tr>
<td>Student Housing</td>
<td>42</td>
</tr>
<tr>
<td>Housing Assignments</td>
<td>42</td>
</tr>
<tr>
<td>Housing Regulations</td>
<td>42</td>
</tr>
<tr>
<td>Housing Reservations</td>
<td>42</td>
</tr>
<tr>
<td>Student Identification Cards</td>
<td>44</td>
</tr>
<tr>
<td>Student Participation</td>
<td>40</td>
</tr>
<tr>
<td>Student Payments</td>
<td>12</td>
</tr>
<tr>
<td>Student Services</td>
<td>42</td>
</tr>
<tr>
<td>Campus Security</td>
<td>46</td>
</tr>
<tr>
<td>Career Services</td>
<td>46</td>
</tr>
<tr>
<td>Child Care Services</td>
<td>46</td>
</tr>
<tr>
<td>College Bookstore</td>
<td>44</td>
</tr>
<tr>
<td>Counseling and Testing Services</td>
<td>43</td>
</tr>
<tr>
<td>Food Service</td>
<td>44</td>
</tr>
<tr>
<td>Learning Resource Center</td>
<td>44</td>
</tr>
<tr>
<td>Student Activities</td>
<td>43</td>
</tr>
<tr>
<td>Intramural and Recreational Sports</td>
<td>43</td>
</tr>
<tr>
<td>Social Activities</td>
<td>43</td>
</tr>
<tr>
<td>Student Clubs and Organizations</td>
<td>43</td>
</tr>
<tr>
<td>Student Government</td>
<td>43</td>
</tr>
<tr>
<td>Student Publications</td>
<td>43</td>
</tr>
<tr>
<td>Student Conduct and Discipline</td>
<td>46</td>
</tr>
<tr>
<td>Student Conduct</td>
<td>46</td>
</tr>
<tr>
<td>Student Discipline Procedures</td>
<td>47</td>
</tr>
<tr>
<td>Student Health</td>
<td>44</td>
</tr>
<tr>
<td>Bacterial Meningitis Notification</td>
<td>44</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>44</td>
</tr>
<tr>
<td>Health Services</td>
<td>44</td>
</tr>
<tr>
<td>HIV Policy and Procedures</td>
<td>44</td>
</tr>
<tr>
<td>Fees</td>
<td>44</td>
</tr>
<tr>
<td>Immunization Vaccines</td>
<td>44</td>
</tr>
<tr>
<td>Student Health Insurance</td>
<td>45</td>
</tr>
<tr>
<td>Student Housing</td>
<td>42</td>
</tr>
<tr>
<td>Housing Assignments</td>
<td>42</td>
</tr>
<tr>
<td>Housing Regulations</td>
<td>42</td>
</tr>
<tr>
<td>Housing Reservations</td>
<td>42</td>
</tr>
<tr>
<td>Student Identification Cards</td>
<td>44</td>
</tr>
<tr>
<td>Student Success</td>
<td>46, 52, 88</td>
</tr>
<tr>
<td>Student Success Program</td>
<td>26</td>
</tr>
<tr>
<td>Student Transportation</td>
<td>45</td>
</tr>
<tr>
<td>Support Services Office</td>
<td>45</td>
</tr>
<tr>
<td>Lending Library</td>
<td>45</td>
</tr>
<tr>
<td>Non-Traditional Services</td>
<td>45</td>
</tr>
<tr>
<td>Services for Students with Disabilities</td>
<td>45</td>
</tr>
<tr>
<td>Single Parent/Displaced Homemaker Services</td>
<td>45</td>
</tr>
<tr>
<td>Textbook Assistance</td>
<td>45</td>
</tr>
<tr>
<td>Surgical Technology</td>
<td>76, 167</td>
</tr>
<tr>
<td>T</td>
<td>40</td>
</tr>
<tr>
<td>Tech Prep</td>
<td>40</td>
</tr>
<tr>
<td>Telecommunications Technology</td>
<td>40</td>
</tr>
<tr>
<td>Texas Higher Education Coordinating Board Complaint Procedure</td>
<td>49</td>
</tr>
<tr>
<td>The TSTC System</td>
<td>5</td>
</tr>
<tr>
<td>Transcript of Credit</td>
<td>26</td>
</tr>
<tr>
<td>Transfer of Credit</td>
<td>40</td>
</tr>
<tr>
<td>Resolution of Transfer Disputes for Lower Division Courses</td>
<td>41</td>
</tr>
<tr>
<td>Transferable Academic Courses</td>
<td>34, 169</td>
</tr>
<tr>
<td>TSTC Veteran’s Affair Educational Benefits Checklist</td>
<td>19</td>
</tr>
<tr>
<td>Documents Needed</td>
<td>19</td>
</tr>
<tr>
<td>Eligibility</td>
<td>19</td>
</tr>
<tr>
<td>Hazlewood Hours Account</td>
<td>20</td>
</tr>
<tr>
<td>Tuition</td>
<td>11</td>
</tr>
<tr>
<td>Tuition and Fees</td>
<td>11</td>
</tr>
<tr>
<td>Fees</td>
<td>11, 12</td>
</tr>
<tr>
<td>Past-Due Accounts</td>
<td>12</td>
</tr>
<tr>
<td>Student Payments</td>
<td>12</td>
</tr>
<tr>
<td>Tuition</td>
<td>11</td>
</tr>
<tr>
<td>Tuition Rebate for Certain Undergraduates</td>
<td>11</td>
</tr>
<tr>
<td>Waivers and Exemptions</td>
<td>12, 13, 21</td>
</tr>
<tr>
<td>Tuition Rebate for Certain Undergraduates</td>
<td>11</td>
</tr>
<tr>
<td>Types of Financial Assistance</td>
<td>17</td>
</tr>
<tr>
<td>V</td>
<td>18</td>
</tr>
<tr>
<td>Veterans Financial Aid and Veterans Benefits</td>
<td>18</td>
</tr>
<tr>
<td>Attendance Policy for Veterans and Dependents using</td>
<td>18</td>
</tr>
<tr>
<td>GI Bill or Tuition Exemption</td>
<td>18</td>
</tr>
<tr>
<td>Course Report</td>
<td>18</td>
</tr>
<tr>
<td>Enrollment Certification</td>
<td>18</td>
</tr>
<tr>
<td>No Show Status</td>
<td>18</td>
</tr>
<tr>
<td>TSTC Veteran’s Affair Educational Benefits Checklist</td>
<td>19</td>
</tr>
<tr>
<td>Documents Needed</td>
<td>19</td>
</tr>
<tr>
<td>Eligibility</td>
<td>19</td>
</tr>
<tr>
<td>Hazlewood Hours Account</td>
<td>20</td>
</tr>
<tr>
<td>Vision and Values</td>
<td>2</td>
</tr>
<tr>
<td>Vocational Nursing</td>
<td>113, 170</td>
</tr>
</tbody>
</table>

www.tstc.edu | 800.852.8784 | 
| Texas State Technical College. |
W
Waivers and Exemptions ................................................................. 12 13, 21
Welcome to TSTC Harlingen .......................................................... 4
Welding Technology ........................................................................ 78, 114, 133, 170
Wind Energy Technology ............................................................... 79, 115, 171

Notes:

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
Helpful Phone Numbers

Career Services............................................................................. 956.364.4106
Cashiers .................................................................................... 956.364.4413
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
President’s Office ......................................................................... 956.364.4021
Student Life ................................................................................ 956.364.4304
Student Receivables ................................................................. 956.364.4409
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 ........................................................................ 7 AM – 10:30 AM
                   (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 & Veteran Services .............................................. 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 ......................................................... 956.364.4608
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) ....................................................... 8 AM – 5 PM

Support Services ........................................................................ 956.364.4520/voice
956.364.4526/TDD
Monday – Friday ........................................................................ 8 AM – 12 PM & 1 PM – 5 PM

Testing Center ............................................................................. 956.364.4308
Monday & Tuesday ..................................................................... 8 AM – 5 PM
Students must begin testing by 1:30PM
Wednesday & Friday .................................................................. 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 ............................................................. 956.364.4340
Monday – Thursday .................................................................. 8 AM – 9 PM
Friday .......................................................................................... 8 AM – 2 PM

* Saturday holidays closed
** Summer semester hours may vary.